Vipul's™

CONTEMPORARY ISSUES

(Foundation Course - IV)

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Vipul's™ CONTEMPORARY ISSUES

(Foundation Course - IV) (Skill Enhancement Courses)

(BA/BCom/BSc/BMS/BAF/BBI/BFM/BIM/BFinM Courses)
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CONTENTS

MODULE - I

Chapter 1

Significant, Contemporary Rights of Citizens

*'A) **Rights of Consumers:** Violations of consumer rights and important provisions of the Consumer Protection Act, 2016, other important laws to protect consumers, consumer courts and consumer movements (3 lectures) – **(B) Right to Information:** Genesis and relation with transparency and accountability, important provisions of the Right to information Act, 2005, some success stories (3 lectures) – **(C) Protection of Citizens/Public Interest:** Public Interest Litigation, need and procedure to file a PIL, some landmark cases (3 lectures) – **(D) The Citizens' Charter: Public Serve Guarantee Acts, Indian Experience:** Basic Concept, Origin and Principles – Model Citizen's Charter, Role of banking sector, Key recommendations, Regional Seminars, Capacity Building Workshops, Evaluation of Delivery of Services, Information and Facilitation Counters (IFCs), Future Vision: Development of Charter Mark, Features of the right to public Services legislation, Implementing states – Questions.*

SIGNIFICANT RIGHTS OF THE CITIZENS:

Introduction:

There are various rights available to the Citizens in our country. Some of them are given by the Constitution of our country those are called as the constitutional rights. Amongst Constitutional rights various rights such as fundamental rights are given to the citizens.

Fundamental Rights are the basic rights of the people and t charter of rights contained in Part III of Constitution of India. guarantees civil liberties such that all Indians can lead their lives peace and harmony as citizens of India. These include individu rights common to most liberal democracies, such as equality befo law, freedom of speech and expression, religious and cultur freedom and peaceful assembly, freedom to practice religion.

Although all the rights are creation of our constitution, there ar many other rights those are available to the citizens of our countr under various statues or laws. Those rights not only give liberty to th citizens to exercise them but also give protection when they ar abused or violated. They are called the statutory rights of citizens Amongst those one of the most significant rights exercised by th people in our country is Consumer Right.

(A) RIGHTS OF CONSUMERS:

(1) Introduction:

Everyone enjoys shopping. Whether we like or not, everyone spend a lot of time as consumers of goods and services. When we buy goods, eat in restaurant, travel or seek the help of doctors, engineers or repairmen **we act as consumers.** In a modern society, we cannot avoid doing this all the time.

Very often we do not get what we seek. The washing machine or car does not keep up its promises. Sometimes we even buy disasters like adulterated medicines or building material. Then we are outraged and want to **complain and get compensation from the manufacturer.**

Unlike in the past, consumers are now protected by several effective laws. These laws confer a number of rights on consumers and impose duties on the sellers. Violations of these rights and duties may entail civil and criminal consequences on the sellers and manufacturers.

But laws alone cannot stop mischief. Consumers get cheated every day in several ways. On the one hand, consumers are not aware of their rights, and the other, traders outmanoeuvre them with money, influence and lawyers.

But a consumer need not feel helpless under these circumstances. There are hundreds are cases where ordinary consumers have floored Goliaths of business. **The first step, naturally is to be aware of our rights.**

(2) History of consumer Rights:

Before Industrial Revolution, the needs of human beings were very few and these were met through exchange of goods. There was 'barter exchange' i.e. exchange of possession of one goods with the others catering to their mutual requirements. There was no competition as the concept of market was not in vogue at all. The wants of people were not many.

However the Industrial Revolution brought in radical changes in the lives of the human beings as regards the goods and articles consumed by them in their day to day life. The consumer goods flooded the market and the traders started adopting various devices to sell the goods manufactured by them. The concept of market was also brought in to existence.

As more and more inventions took place, more and more goo and articles were manufactured and the human beings started relyi upon them more often. The encounters between the buyer and th seller increased and the **law of demand and supply came int operation.**

As the society was Laissez Faire, the state used t intervene in the lives of its citizens very rarely. There was n effective laws to regulate the relationship between the buyer an seller. This emboldened the traders to monopolise the market and th trader became a king. There was no measure to check dereliction or the part of the trader unless the same amounted to serious offences.

The principles of "Caveat Emptor" i.e. "let the buyer beware" was the rule of the day. The conditions and warranties, fixed by the manufacturer and the trader were binding on the consumers. The consumers came to be abused and exploited by the unscrupulous traders whose only object was to make profits.

The doctrine of freedom of contract made the traders even more bolder in their pursuit of making more profit. All these factors culminated in a new phenomenon resulting in the abuse and exploitation of consumers. This led to the **consumer movement throughout the world.**

The developed countries like U.S.A. and U.K., were the first to realise the need to protect the interest of consumers who became a powerful and intelligent class in the society. Various legislations were passed to achieve this objective.

The concept of consumer came into existence and **consumer protection became one of the primary duties of the state.**

ıe subject of consumer protection has received an increased tention in India as well as other countries.

In 1985, the United Nations emphasizing the need for consumer ducation and laid down certain guidelines urging the governments) develop and encourage the development of general consumer ducation and information programs. According to these guidelines ıe governments were called upon to take care of the interest of the onsumers of all kinds and class.

These guidelines which unanimously adopted by the General ssembly on 9th April 1985 are also called as **"Chapter of Human Rights".** They represent an internationally recognised set of ninimum objectives potentially being of particular assistance to the leveloping countries.

These guidelines represent an initial attempt to create a global framework for consumer protection policy and measures. They acted as impetus for many legislation framed in many countries. The Consumer Protection Act, 1986 is one such legislation in India.

Every year 15th of March is observed as the World Consumer Rights day. The significance of this day is that on this day in 1962, John F. Kennedy, the then President of the United States of America declared four consumer rights in his special message to the Congress.

Latter the International Organization of Consumer Union (IOCU) added three more rights to the list and all these right have been included in the United Nations Charter on human rights and also in the 20 point of program the Government of India.

(3) Meaning of Consumerism:

It falls within the most scientific conceptions of contempo social movements. It can be defined **as a diverse and evolv social movements seeking to enhance the economic we being and political power of consumers.** In fact the ter 'consumerism' and 'consumer movement' can be us interchangeably.

Consumerism denotes a common thread that runs through th consumer activism, characteristic of different times and place Consumerism has been a movement in which the trader and th consumer fined each other as adversaries.

Consumerism has its own critics as well as fans. The criti of consumerism contend that **the free market/enterprise syste is already structures to protect the interest of the consume automatically.** Obviously most of these critics are eithe businessmen or protagonists of 'Laissez faire' system.

On the other hand consumerists take strong exceptions to thes criticisms. They assert the benefits generated by their policies have fa outweighed the costs. **They argue that the presence o consumerists is very essential in stimulating governmen actions in defence of health, safety and other rights of the consumers.**

(4) Position in ancient times:

Laws aimed at the protection of consumers are not confined to modern times. Some prohibitions against adulterated food and false weights and measures are thousands of years old, such as those

ound in Old Testament, the code of Hamurabhi and the ancient aws of India.

European consumer Protection status began to appear in the 15th and 16th centuries and were based on the principle of deterrence. E.g. vendors add adulterated milk in Austria were required to drink all of their own product. Similarly, French consumers were allowed to throw rotten eggs at those who had sold them. In U.S.A. the constitution empowers the congress to "fix the standard of weights and measures' and various State laws were passed to allow inspection of foods, tobacco, liquor, leather, lumber and gunpowder etc.

During most of the middle ages, consumers were protected to some degree by the moral strictures of the Catholic Church, self-regulations by craft guides and consumer's own knowledge of products and local sellers. The laws did not support the consumers and neither did they favour the sellers.

Gradually there was a shift in the legal doctrine that favoured sellers, in their efforts to encourage trade. The dominant rule of the market place became "Caveat Emptor" or buyer beware. The supply and demand conditions that underlay the doctrine of caveat emptor and limited government intervention on behalf of consumers changed rapidly in the latter decades of the 19th century.

(5) The history of the consumer movement begins in the United States:

Beginning in the 1960s-70s scholars began to recognize "waves" of consumer activism, and much of the academic research on the

consumer movement sorted it into "three waves of consu activism". Since that time, other scholars have described other wav

The growth of consumerism in U.S.A. is understood in three e of consumer activism. **This followed the application of ru like Caveat Emptor or buyer beware and the law of supp and demand.** However the industrial revolution in U.S.A. h brought radical changes in the then prevailing practices. By the e of 19th century mass production and mass distribution were appli to simple household goods especially food, cleaning products a textiles. There was transition from home produced to mass produc goods and also a shift from the purchase of unbranded products branded products which were nationally advertised. Consequent certain degree of quality assurance and convenience has bee introduced. Combined with advertising it induced consumers to a for particular version of goods rather than generic goods.

(6) Law of Consumer Protection in India:

For making huge profits all sorts of abominable means an methods of malpractices are being adopted by the trader businessman, sellers' employers, producers etc. at the cost o consumer's interest. Thus marketing of goods injurious to health an life, deception of the consumer through unfair trade practices such as, substandard quality, adulteration, non-supply of correct quantity, excess pricing etc. are rampant in our society. **In India, the plight of the consumer is worse confounded because of his ignorance, illiteracy and weak economic position.**

There are various laws which have directly or indirectly a bearing on interest of the consumers. They include:

- **Sale of Goods Act, 1930.**
- **The Indian Penal Code, 1860.**
- **The Drugs and Cosmetics Act, 1940.**
- **The Agricultural Produce (Grading and marketing) Act, 1937.**
- **The Drugs and Magic Remedies (objectionable advertisement) act, 1954.**
- **The Prevention of Food Adulteration Act, 1954.**
- **The Monopolies and restrictive Trade Practices Act, 1969.**
- **The Standard of weights and Measures Act, 1976.**
- **The Bureau of Indian Standards Act, 1986 etc.**
- **The Air (prevention and Control of Pollution) Act, 1981.**
- **The Water (prevention and Control of Pollution) Act, 1974.**
- **The Environmental Protection Act, 1986.**
- **The Essential commodities Act, 1955.**
- **The Export (quality control and Inspection) Act, 1963.**
- **The Protection of Civil rights Act, 1955.**
- **The trade and Merchandise marks Act, 1958.**

And various provisions in Code of Criminal Procedure l Sections 406,407, 408, 409, 410 and 482, in Indian Penal Co Sections 264 to 26, 22, 276, 277, 278 and other laws.

Some of the relevant provisions are:

(1) **AGMARK:** The Agricultural Produce (Grading ar Marketing) Act, 1937 provides for the grading and marketir of agricultural and other allied commodities with the objecti of making available only the quality agricultural produ including horticulture and livestock produce to th consumers.

(2) **The Indian Contract Act, 1872** offers protection consumers by declaring those contracts which are the resul of fraud, misrepresentations, undue influence as terminable a the option of the party aggrieved. Damages can also b claimed.

(3) **The Sale of Goods Act, 1930** protects consumers b subjecting every contract of sale and purchase of goods t certain conditions and warranties. Sale by a person no having a clear title entitles the buyer to full refund of price.

(4) **The Drugs and Cosmetics Act, 1940** aims at protecting the consumer by regulating the manufacture, import, sale and innovation in pharmaceutical drugs and cosmetics. It prohibits import, manufacture and sale of hazardous misbranded, adulterated drugs and cosmetics.

(5) **MRTP Act, 1984** acquired the status of a consumer protection legislation. It seeks to check monopolies,

monopolistic trade practices, restrictive trade practices and unfair trade practices.

(6) **The essential commodities Act, 1955** empowers the central government to regulate production, supply, distribution storage, transport, price etc. of essential commodities.

(7) **The Standards of Weights and Measures Act, 1985** aims at introducing standards in relation to weights and measures used in trade and commerce.

This list is only illustrative in nature. **The Constitution of India which is the fundamental law of the land also contains a number of provisions which go a long way in protecting the rights of the consumers. These provisions include Article 21 which deals with the Right to Life and Personal Liberty, Article 48-A which aims at a pollution free environment for all citizens etc.**

The above mentioned acts were punitive and preventive, where the consumer could not seek speedy and effective remedy and redressal against the offending trader. Groups of consumers raised pressure on the government and then the Parliament enacted the Consumer Protection Act, 1986.

The only difference between these laws and the Consumer Protection Act of 1986 is that in the case of former, each enactment deals with a special class of consumers and that too with regards to only a particular area of consumer behaviour, whereas the latter is a general legislation which lays down a uniform set of laws, procedure and forum for protecting the rights of all kinds of consumers and

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endeavours to protect their rights irrespective of the nature of th transaction that takes place between the consumer and the seller. Th advantage of this legislation is that it provides a speedy, informa inexpensive justice within the reach of all the consumers.

Product Liability is the area of law in which manufacturers distributors, suppliers, retailers and others who make produc available to the public are held responsible for the injuries which those products cause. It is traditionally limited to products in the form of tangible personal property. In many countries legislations have taken lead in imposing strict liability for product defects.

Product Liability Law in India:

In India Product Liability Law governs the liability of manufacturers, wholesalers, distributors and vendors for injury to a person or property caused by dangerous or defective products. **The goal of Product Liability Law is to help and protect consumers from dangerous or defective products, while holding manufacturers, distributors and retailers responsible for putting into the market place the product which they know or should have known were dangerous or defective.**

Civil Product Liability in India is essentially governed by-

- *The Consumer Protection Act, 1986*
- *The Sales of Goods Act , 1930*
- *The Monopolies & Restrictive Trade Practices Act, 1969*
- *The Law of Torts*
- *Special Status pertaining to specific goods*

The Product Liability Law in India apart from the civil liability also ıposes criminal liability in case of non-compliance with the ·ovisions of each of the following Acts:

- *The Food Adulteration Act, 1954*
- *The Food Safety & Standards Act, 2006*
- *The Drugs and Cosmetics Act, 1940*
- *The Indian Penal Code, 1860*
- *The Standards of Weights & Measures Act, 1956*
- *The Agricultural Produce (Grading & Marketing) Act, 1937 for marking and grading of commodities like vegetables ,butter etc.*
- *The Indian Standards Institution (Certification Marks) Act, 1952 to formulate a number of standards for different products by ISI*
- *The Bureau of Indian Standards Act, 1986*

Each of these Acts provides for imposition of fine and or imprisonment in case of supply of defective products or adulterated consumables .

(7) Features of Consumer Rights in India:

The main features of Consumer rights in India:

- **The definition of consumer Right is "the right to have information about the quality, potent, quantity, purity, price and standard of goods or services", as it may be the case, but the consumer is to be protected against any unfair practices of trade.**

- It is very essential for the consumers to know t rights. However there are strong and clear law India to defend consumer rights, the actual pligh consumers of India can be declared as comple dismal.
- Out of the various laws that have been enforced protect the consumer rights in India, the m important is the Consumer Protection Act, 1986.
- According to this law, everybody, includ individuals, a firm, a Hindu undivided family an company, have the right to exercise their consur rights for the purchase of goods and services made them.
- It is significant that, as consumer, one knows t basic rights as well as about the courts a procedures that follow with the infringement of one rights.

Following are the Consumer Rights in India:

The Right to be protected from all kind of hazardou goods and services:

- The right to be fully informed about the performanc and quality of all goods and services.
- The right to free choice of goods and services.
- The right to be heard in all decision makin processes related to consumer interest.

- **The right to seek redressal, whenever consumer rights have been infringed.**
- **The right to complete consumer education.**

The Consumer Protection Act, 1986 and several other laws like the weights, Standards & Measures Act can be formulated to make sure that there is fair competition in the market and free flow of correct information from goods and services providers to the ones who consume them.

The level of consumer protection in any country is regarded as the right indicator of the progress of the country. There is high level of sophistication gained by the goods and services providers in their marketing and selling practices and different types of promotional tasks.

Ministry of consumer affairs in India, Food and Distribution has incorporated the department of consumer Affairs as the nodal organization to protect the consumer rights, redress the consumer

grievances and promote the standards governing goods and servi in India.

If there is violation of rights of consumers then complaint can be made under the following circumstanc and reported to the close by designated consumer court.

(1) The goods or services purchased by a person o agreed to be purchased by a person has one or mor defects or deficiencies in any respect

(2) A trader or a service provider resort to unfair o restrictive practices of trade

(3) A trader or a service provider if charges a price more than the price displayed on the goods or the price that was agreed upon between the parties or the price that was stipulated under any law that exists.

(4) Goods or services that bring a hazard to the safety oru life of a person offered for sale, unknowingly or knowingly, that causes injury to health, safety or life.

(8) The Consumer Protection Act, 1986:

Features:

The Consumer Protection Act, 1986 is a benevolent social legislation that lays down the rights of the consumers and provides there for promotion and protection of the rights of the consumers. **The first and the only Act of its kind in India, it has enabled ordinary consumers to secure less expensive and often speedy redressal of their grievances.**

By spelling out the rights and remedies of the consumers in a narket so far dominated by organized manufacturers and traders of oods and providers of various types of services, the Act makes the tatement, caveat emptor ('Buyer Beware') a thing of the past.

The Act mandates establishment of Consumer Protection Councils at the Centre as well as in each State and District, with a view to promoting consumer awareness. The Central Council is headed by Minster In-charge of the Department of Consumer Affairs in the Central Government and the State Councils by the Minister In-charge of the Consumer Affairs.

Consumer Rights under the Consumer Protection Act in India:

Although businessman is aware of his social responsibilities even then we come across many cases of consumer exploitation. Government of India provided following rights to all the consumers under the consumer Protection Act:

(1) Right to safety:

According to this right the consumers have the right **to be protected** against the marketing of goods and services which are hazardous to life and property, this right is important for safe and secure life. This right includes concern for **consumer's long term interest as for their present requirement.**

Sometimes the manufacturing **defects** in electrical appliances or other consumer goods may cause loss to life, health and property of consumers. The Right to Safety protects the consumer from sale of such hazardous goods or services.

Specifically significant in areas such as **healthcare, fo processing and pharmaceuticals,** this right spans across a domain that could have a serious impact on the consume health or well-being such as **Automobiles, Travel, Domest Appliances, Housing etc.**

Violation of this right is almost always the cause of medic malpractice law suits in India. Every year, it is estimated th thousands, if not, millions of Indian citizens are killed or severe hurt by dishonest practices by hospitals, doctors, pharmacie and the automobile industry.

(2) Right to Information:

According to this right the consumer has the **right to ge information about the quality, quantity, purity, standar and price of goods or services** so as to protect himsel against the abusive and unfair practices. The producer mus supply all the relevant information at a suitable place.

This consumer right is defined as the 'the right to be informed about the quality, quantity, potency, purity, standard and price of goods or services, as the case may be so as to protect the consumer against unfair trade practices' in the Consumer Protection Act, 1986.

In the Indian market place, consumers get consumer information through two popular, yet unreliable means, namely advertising and word of mouth. Due to this, the consumers in India seldom have accurate and complete information to assess the true value, suitability, safety or reliability of any product.

Mostly we find out hidden costs, lack of suitability, safety hazards and quality problems only after we have purchased the product.

Right to Choice:

According to this right every consumer has the **right to choose the goods or services of his or her likings.** The right to choose means an assurance of availability, ability, and access to a variety of products and services at competitive price and competitive price means just or fair price.

The producer or **supplier or retailer should not force the customer** to buy a particular brand only. Consumer should be free to choose the most suitable product from his point of view.

The right to be assured **access to a variety of products at competitive prices, without any pressure to impose a sale, i.e., freedom of choice.** Consumer Protection Act, 1986 defines this right as 'the right to be assured, wherever possible, to have access to a variety of goods and services at competitive prices'. Competition, invariably, is the best regulator of a market place.

Existence of oligopolies, cartels and monopolies are counterproductive to consumerism. How often have you noticed a corporation of companies that lobby the government to compromise consumer rights.

(4) Right to be Heard or right to Representation:

According to this right the consumer has the **righ represent him or to be heard to advocate his interes** case a consumer has been exploited or has any comp against the product or service then he had the right to be h and be assured that his/her interest would receive consideration.

This right includes the **right to representation in government and in other policy making bodies.** Ur this right the companies must have complaint cells to attend complaint of customers.

The right to be heard and assured that consumer interests receive due consideration at appropriate forums. According the Consumer Protection Act, 1986, the right to be heard and be assured that consumer's interests will receive d consideration at appropriate forums' is referred to as the right be heard.

This right is supposed to **empower Indian consumers fearlessly voice their complaints and concerns agains products and companies to ensure their issues ar handled efficiently and expeditiously.**

(5) Right to Seek Redressal:

According to this right the consumer has the **right to ge compensation or seek redressal against unfair trad practices or any other exploitation.** This right assures justice to consumer against exploitation. The Right to Redressal includes compensation in the form of **money or replacement**

of goods or repairing the defects in the goods as per the satisfaction of the consumer. Redressal forums are set up by the government at both National and state levels.

The right to get relief against unfair trade practice or exploitation. The right 'to seek redressal against unfair trade practices or restrictive trade practices or unscrupulous exploitation of consumers' is defined as the right to redressal in the Consumer Protection Act 1986.

The Indian Government has been slightly more successful with respect to this right. Consumer courts such as District Consumer Disputes Redressal Forums at the district level, State Consumer Disputes Redressal Commissions and National Consumer Disputes Redressal Commissions have been established through the Consumer Protection Act.

(6) Right to Consumer education:

According to this right it is the **right of the consumer to acquire the knowledge and skills to be informed to customers.** It is easier for literate consumers to understand their rights but this right assures that illiterate customers can seek information about the various acts and the agencies which are set up for their protection.

Consumer Education has been introduced in the **school curriculums and University courses in India** and at the same time through **media** efforts are made to make consumers aware about their rights.

The right to be educated about rights of a consumer. The right of each Indian citizen to be educated on matters related to

consumer protection and about his/her rights is the last rig given by the Consumer Protection Act, 1986.

This right simply ensures that the consumers in India ha access to informational programs and materials that wou enable them to make better purchasing decisions. Consum education may mean both formal education through school ar college curriculums and also consumer awareness campaig **run by both governmental and non-governmenta agencies (NGO).**

(9) Violation of Consumer Rights:

Following are some of the ways in which consumer righ are violated:

(1) Goods for resale or for commercial purpose

(2) Defect in the goods

(3) Sale of hazardous goods

(4) Charging excessive price

(5) Deficiency in service

Reliefs available to the consumers under the Act:

(1) Refund of the price paid

(2) Removal of the defects from the goods

(3) Replacements of the goods

(4) Withdrawal of hazardous goods from sale

(5) Compensation for the loss or injury

(6) Providing adequate cost to parties

(7) Discontinuation of the unfair trade practices

(8) To correct misleading advertisements etc.

The Consumer Protection Section at the Department of Economic Development (DED) is responsible for protecting the consumers and raising awareness of their rights and responsibilities, it implements a series of measures and policies aiming at creating a safe environment for consumers of various products and services in the Emirate. The section also organises several awareness programmes including the annual Commercial Fraud Exhibition and Gulf Consumer Protection day, in addition to the distribution of booklets and publications to raise awareness about consumer rights and responsibilities.

(10) Consumer responsibilities:

Following are the basic Consumer Responsibilities:

- To be aware of his/her rights in all aspects of consumption.
- To verify the source of goods by reading the particulars of the country of origin.
- To look for the specifications of the good he/she wishes to buy.
- To comply with the health rules that make the item or product fit for use, and to follow instructions before using such items or products, such as washing fruits and vegetables well and boiling milk and cheese before consumption.

- To abide by the instructions that are affixed on the packe offer, and apply it as instructed, especially when it come the storage and preservation method and conditions.
- Not to purchase materials, products or goods from str vendors.
- Not to be tempted by misleading advertisements.
- To read the content of the goods warranty card befo purchasing.
- To examine the goods and ensure they are defect-free befo leaving the shop.
- To verify the date of expiry for the goods, materials o medicine before purchasing and refrain from using expire items.
- To make sure that the prices of items purchased are reasonable, either by checking the market prices, or based on his/her purchasing experience, or by comparing the quality of the product or service with its price.
- To change the consumption behaviour in all aspects by specifying the items to be consumed and avoiding stockpiling of items for a long time, or keeping them in unsuitable containers. Also, to refrain from wasting food and other items that mostly end up in garbage bins.
- To request proper receipt/bill from the shopkeeper.
- To cooperate with the consumer protection authorities by reporting any wrongdoing or fraud.

24th December is observed as 'National consumer Rights y in India. It aims at providing better protection of nsumers interest. Every individual regardless of gender, mmunity, religion, age or occupation is a consumer and nsumer rights are integral part of the life of the individual.

1) The National Consumer Disputes Redressal Commission (NCDRC):

The National Consumer Disputes Redressal Commission CDRC), India is a quasi-judicial commission in India which was set in 1988 under the Consumer Protection Act of 1986. Its head fice is in New Delhi. The commission is headed by a sitting or tired judge of the Supreme Court of India. The commission is esently headed by Justice D K Jain, former judge of the Supreme ourt of India.

Section 21 of Consumer Protection Act, 1986 posits that the ational Consumer shall have jurisdiction to entertain a complaint alued more than one crore and also have Appellate and Revisional risdiction from the orders of State Commissions or the District fora s the case maybe.

Section 23 of Consumer Protection Act, 1986, provides that any erson aggrieved by an order of NCDRC, may prefer an Appeal gainst such order to Supreme Court of India within a period of 30 lays.

District Forum:

A District Forum is set up by the State Government for each district while a State commission is set up by the government for the

respective state. The National commission the set by the C government.

(12) Consumer Courts:

Consumer Court is the special purpose court, in Ind that deals with cases regarding consumer disputes a grievances. These are judiciary hearings set up by the governme to protect the consumer rights.

Its main function is to maintain the fair practices by th sellers towards consumers. Consumers can file a cas against a seller if they are harassed or exploited by seller The court will only give a verdict in favour of th consumers/customers if they have proof of exploitation, *i.e.*, bills o other documents. If a consumer does not have the proper document required for filing a case then it would be very difficult for th consumer to win or even file a case.

National Consumer Disputes Redressal Commissio (NCDRC): A national level court works for the whol country and deals with amount more than Rs. 10 million The National Commission is the Apex body of Consume Courts, it is also the highest Appellate Court in the hierarchy.

State Consumer Disputes Redressal Commission (CDRC): A state level court works at the state level with ases valuing less than Rs. 10 million. The State ommission also has Appellate jurisdiction over the District orum.

District Consumer Disputes Redressal Forum (DCDRF): district level court works at the district level with cases aluing up to Rs. 2 million.

13) Consumer movement:

The consumer movement as a social force originated with he necessity of protecting and promoting the interests of consumers against unethical and unfair trade practices. Rampant food shortages, hoarding, black marketing, adulteration of ood and edible oil gave birth to the consumer movement in an organized form in the 1960s.

The movement succeeded in bringing pressure. A major step was taken in 1986 by the Indian government with the enactment of the Consumer Protection Act of 1986 (COPRA).

Consumer co-operatives are the starting point of the consumer movements. They have been successful in stopping the exploitation of the monopolies and improving the conditions of the lower income groups.

In 1962 consumer movements became a full-fledged system as a result of problems like adulteration, black marketing, lack of choice of a product etc. The consumer movements have been going through **various stages.** Initial stages made the consumers aware about their rights through newspaper articles and speeches. The later stages were

respective state. The National commission the set by the Ce government.

(12) Consumer Courts:

Consumer Court is the special purpose court, in Ind that deals with cases regarding consumer disputes a grievances. These are judiciary hearings set up by the governm to protect the consumer rights.

Its main function is to maintain the fair practices by t sellers towards consumers. Consumers can file a ca against a seller if they are harassed or exploited by seller The court will only give a verdict in favour of th consumers/customers if they have proof of exploitation, i.e., bills other documents. If a consumer does not have the proper documen required for filing a case then it would be very difficult for th consumer to win or even file a case.

National Consumer Disputes Redressal Commissio (NCDRC): A national level court works for the whol country and deals with amount more than Rs. 10 million The National Commission is the Apex body of Consume Courts, it is also the highest Appellate Court in the hierarchy.

State Consumer Disputes Redressal Commission CDRC): A state level court works at the state level with ıses valuing less than Rs. 10 million. The State ɔmmission also has Appellate jurisdiction over the District ɔrum.

District Consumer Disputes Redressal Forum (DCDRF): district level court works at the district level with cases ıluing up to Rs. 2 million.

(3) Consumer movement:

The consumer movement as a social force originated with he necessity of protecting and promoting the interests of onsumers against unethical and unfair trade practices. Rampant food shortages, hoarding, black marketing, adulteration of ɔod and edible oil gave birth to the consumer movement in an ɔrganized form in the 1960s.

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action based with boycotting of goods, demonstrations and late educational activities, lobbying, litigations and complaints.

Some important Consumer Organizations in India are:

- Passengers and Traffic Relief Association (PATRA) - 1915.
- Women Graduate Union - 1915.
- The Indian association of Consumers - 1956.
- Consumer guidance Society of India - 1966.
- The Karnataka Consumer service society - 1970.
- Akhil Bhartiya Grahak Panchayat - 1974.
- Mumbai Grahak Panchayat - 1979.

Federation of Consumer Organisation (FEDCOT)-1990 was new trend of a unified approach with bringing together as ma consumer groups as possible in the state under one umbrella. apex level works confederation of Indian consumer organizatio (CICO)-1991 and Consumer Coordination council (CCC)-1992.

NATIONAL CONSUMER HELPLINE is a project of Unio Ministry of consumer affairs. The Jago Grahak Jago projec involves a Telephone helpline to deal with their problems.

onsumers can log in their complaints at *ww.consumerhelpline.gov.in*

Consumers can call to register their complaint to 1800-1-4000 or 14404 on all days except national holidays from 09:30 AM to 05:30 PM).

This customer care number helps the costumers to contact the help desk of national helpline with free of cost.

Consumer Rights Awareness (CRA):

Need of CRA:

Consumers play a vital role in the development of a nation. **Mahatma Gandhi said, "A consumer is the most important visitor on our premises. He is not dependent on us, we are on him. He is not an interruption to our work; he is the purpose of it. We are not doing a favour to a consumer by giving him an opportunity. He is doing us a favour by giving us opportunity to serve him."**

But of late unfortunately cheating by way of overcharging, black marketing, misleading advertisements, etc. has become the common practice of greedy sellers and manufacturers to make unreasonable profits and without heed to confer consumer rights and interests.

Modern business is an integral part of current day society. Each company has as a socioeconomic impact on the people and has to deliver the goods and services and the standard of living as per the aspirations of the people. It has a great social responsibility towards the well-being of society. **Therefore consumer is an important**

component of society and business has an obligation him.

But, when the goods are short in supply the producers cha high prices and consumers have no choice other than to purcha what is available. Therefore, **consumer is to be protected fro unsafe products, poor quality of goods and services, hig prices, unfair trade practices and misleadin advertisements.**

Therefore, it is necessary for CRA, awareness to prevail among the consumer to protect them from unscrupulous trade practices an to give them the idea of the utility of money spent by them.

Consumer occupies a supreme position in a free economy. Bu he never received the attention he deserves. In a country like India he is not the sovereign but a slave. The welfare of the consumer lie in the fulfilment of his normal and legitimate expectation with regard to the goods and service.

Consumer rights awareness is about making the consumer aware of products or services; however, this is largely unknown to many citizens irrespective of whether they are educated or uneducated. With an enormous population along with high levels of poverty, unemployment and poor literacy levels, consumer rights awareness continues to remain low. Education is a lifelong process of constantly acquiring relevant information, knowledge and skills.

onsumer Education:

Consumer education is an important part of this process nd is a basic consumer right that must be introduced at the chool level. Consumers by definition include all citizens ho are, by and large the biggest group, who are affected by lmost all government, public or private decisions.

The most important step in consumer education is awareness of onsumer rights. However, consumer education is incomplete ithout the responsibilities and duties of consumers, and this nfluences individual behaviour to a great extent.

Consumer rights awareness is now an integral part of our lives like consumerist way of life. They have been well documented and much talked about. We have all made use of them at some point in our daily lives. Market resources and influences are growing by the day and so is the awareness of one's consumer rights.

These rights are well-defined and there are agencies like the government, consumer courts and voluntary organizations that work towards safeguarding them. While we all like to know about our rights and make full use of them, consumer responsibility is an area which is still not demarcated and it is hard to spell out all the responsibilities that a consumer is supposed to shoulder.

(14) Problems involved in consumer protection in India:

- Indian are not aware about their **rights against dishonest practices in general, of manufactures or traders** in relation to goods and services supplied by them. Lack of awareness has its roots in particular illiteracy in India.

- People do not know what they should do in case if they are be subject to fraud by them. They are not aware of the resour available to them under laws provided for redressing such caus
- **Lack of consumer education is the root of the proble of unawareness among the people of India abo available rights and remedies in cases anything go against the interest of consumer in India, therefore n law will ever be able to provide people their due righ against such bad practices of sellers or manufactur unless they are being educated and make aware abo the available remedies in case of violation of the rights.**
- Every market in India or elsewhere are many such people o tradesman who are involved in making money by incorporatin malpractices in the course of their business and they are lot o black money at the cost of innocent consumer. There is n **concern for the wellbeing of the consumer**. Moreove those who are aware of their rights escape from taking the lega recourse against the wrongdoer because they know that the lega recourse will consume a lot of time, energy and money redressal of legal matter takes years in India is a common belief.
- People in general do not approach court of law even the dishonest people harass them and they play passive role in non-redressing their grievances against the seller for manufacturer. Because of such **unwilling behaviour of consumers** offenders are left unpunished and in case when the matter is reported consumers takes recourse of court of law, these courts decide the matter in year in them **mal practices** of

tradesman are carried on without any short of interference and prohibition even today **majority of the people in India are not yet aware about the rights available to them.**

- A lot of cases are left without redressal. The parties aggrieved either do not approach the consumer court or satisfied after getting a little amount from the dishonest seller. **It is therefore, required that the people at a large scale be aware about their rights and available remedies under the Act.** Only the real object of the said act may be achieved otherwise by legislative any such act would amount to a futile exercise of the legislature.

- **The areas where it is needed we should pay more attention villages, the worst effected by dishonest seller and subject to their mal practices are our villages** where people are not much aware their rights related to consumer protection.

- These people are generally involved in agriculture and agriculture related occupation. They do very little case for their children education believing that it is just wastage of time and it does not matter if you are not educated. This kind of way of life lead them in a situations where they are denied their rights and knowing that they cannot protest because of their lack of knowledge about the prospect of their rights relating consumer protection. In these areas we are require to pay our earnest heed so that the people may be aware of consumer protection laws and the real purpose and objective of the law should be achieved.

Consumerism refers to economic policies which emphas consumption. It is the consideration that the free choice of consum should strongly orient the choice by manufacturers of what produced and how. It also suggests efforts to support consume interests. Consumerism is the concept that the marketplace itself responsible for ensuring social justice. Consumer Protection polici and laws compel manufacturers to make product safe.

Green Consumerism is related to the notion of Sustainab development and Sustainable Consumer Behaviour. It is a type consumption which is compatible with the safeguards of t environment for the present without compromising ability of futu generations to consume. This type of activity involves responsib consumerism through adoption of environmentally friend consumption trends such as use of renewable energy forms, an organic products.

(B) RIGHT TO INFORMATION:

(1) Introduction:

The Right to Information is one of our Fundamenta Rights under the Constitution of India. It is one of the mos important features of democracy that the government mus be made more transparent and accountable in order to mak democracy stronger.

The Right to Information is one of the most powerful too for minimizing corruption and inefficiency in government. In democratic countries people are sovereign or hold supreme authority in different ways. Right to Information (RTI) empowers people to

exercise their control. It gives power to the people to realize their ights.

In the pre-independence time, in India the Official Secrets Act (1923) governed the disclosure of Information held by public authorities in India, which governed all matters of secrecy in government matters. It acted as weapon in the hands of corrupted politicians.

However after Independence, the Supreme Court interpreted the constitution and held that Right to Information was part of the Fundamental Rights of people of India.

RTI as a Constitutional Right:

The Right to Information is one of our Fundamental Rights under the Constitution of India. This right is an inherent part of the Right to Freedom of Speech and Expression under Article 19 (1) (a) and Right to Life and Personal Liberty under Article 21.

'Information' is a term has been derived from the Latin words 'Formation' and 'Forma' which means giving shape to something and forming a pattern, respectively.

Information adds something new to our awareness and removes the vagueness of our ideas. Information is Power and because of this reason that the Right to Information has to be ensured for all. The Freedom of Information Bill 2000 introduced in the Lok Sabha on 25th July 2000 says that:

(a) Information means any material in any form relating to the administration, operations or decisions of a public authority;

(b) The bill defines public authority as any authority or bo established or constituted:

(i) by or under the Constitution,

(ii) by any law made by the appropriate Government,

(iii) and includes any other body owned, controlled substantially financed by funds provided directly indirectly by the appropriate Government.

(c) Freedom of information means the right to obtain informati from any public authority by means of:

(i) inspection, taking of extracts and notes,

(ii) certified copies of any records of such public authority and

(iii) diskettes, floppies or in any other electronic mode through print-outs where such information is stored in computer or in any other device.

The Press Council of India prepared a draft Bill in 1996 to make provision for securing right to information. This draft Bill was name **Right to Information Bill, 1996.** The Institute of Rura Development, Hyderabad also prepared a bill in 1997. Both the bill initiated a national debate on the issue of Effective and Responsiv Administration.

The Govt. of India appointed a working group on January 2 1997. The terms of reference of the Working Group included the examination of feasibility and need to introduce a full-fledged Right to Information Bill. This group recommended that a legislation in this regard is not only feasible but is also vitally necessary. The Working Group recommended that the bill should be named as Freedom of

nformation Bill as the Right to Information has already been udicially recognised as a part of the fundamental right to free speech and expression.

Constitutional aspect of the Right to Information:

Article 19(1) (a) of the Constitution guarantees the fundamental rights to free speech and expression. The prerequisite for enjoying this right is knowledge and information. The absence of authentic information on matters of public interest will only encourage wild rumours and speculations and avoidable allegations against individuals and institutions. Therefore, the Right to Information becomes a constitutional right, being an aspect of the right to free speech and expression which includes the right to receive and collect information.

This will also help the citizens perform their fundamental duties as set out in Article 51A of the Constitution. A fully informed citizen will certainly be better equipped for the performance of these duties. Thus, access to information would assist citizens in fulfilling these obligations.

RIGHT TO INFORMATION IS NOT ABSOLUTE:

As no right can be absolute, the Right to Information has to have its limitations. There will always be areas of information that should remain protected in public and national interest. Moreover, this unrestricted right can have an adverse effect of an overload of demand on administration. So the information has to be properly, clearly classified by an appropriate authority.

The usual exemption permitting Government to wit access to information is generally in respect of the matters:

(1) International relations and national security;

(2) Law enforcement and prevention of crime;

(3) Internal deliberations of the government;

(4) Information obtained in confidence from some source ou the Government;

(5) Information which, if disclosed, would violate the privacy c individual;

(6) Information, particularly of an economic nature, when disclo would confer an unfair advantage on some person or subje government;

(7) Information which is covered by legal/professional privilege, communication between a legal advisor and his client and

(8) Information about scientific discoveries and inventions a improvements, essentially in the field of weapons.

These categories are broad and information of every kind relation to these matters cannot always be treated as secret. The may be occasions when information may have to be disclosed public interest, without compromising the national interest or pub safety. **For example, information about deployment an movement of armed forces and information about militar operations, qualify for exemption. Information about th extent of defence expenditure and transactions for th**

ırchase of guns and submarines and aircraft cannot be tally withheld at all stages.

EED FOR RIGHT TO INFORMATION:

The Right to Information has already received judicial recognition s a part of the fundamental right to free speech and expression. An ct is needed to provide a statutory frame work for this right. This w will lay down the procedure for translating this right into reality.

Information is indispensable for the functioning of a true lemocracy. People have to be kept informed about current affairs nd broad issues political, social and economic. Free exchange of deas and free debate are essentially desirable for the Government of a free country.

In this Age of Information, its value as a critical factor in socio-cultural, economic and political development is being increasingly felt. In a fast developing country like India, availability of information needs to be assured in the fastest and simplest form possible. This is important because every developmental process depends on the availability of information.

Right to know is also closely linked with other basic rights such as freedom of speech and expression and right to education. Its independent existence as an attribute of liberty cannot be disputed. Viewed from this angle, information or knowledge becomes an important resource. An equitable access to this resource must be guaranteed.

RIGHT TO INFORMATION IN OTH COUNTRIES:

In recent years, many Commonwealth countries like **Cana Australia, and New Zealand have passed laws providing the right of access to administrative information. U France and Scandinavian countries have also passed sim laws.** US Freedom of Information Act ensures openness administration by enabling the public to demand information ab issues as varied as deteriorating civic amenities, assets of sena and utilisation of public funds.

It is not only the developed countries that have enacted freed of information legislation, similar trends are seen in the **develop countries as well. The new South Africa Constituti specifically provides the Right to Information in its Bill Rights** thus giving it an explicit constitutional status. **Malay** operates an on-line data base system known as Civil Services Li through which a person can access information regarding functioni of public administration. There is thus a global sweep of chan towards openness and transparency.

In USA, the first amendment to the Constitution provided for t freedom of speech and expression. The country had already passe the Freedom of Information Reform Act 1986, which seeks to amen and extend the provisions of previous legislation on the same subjec But this right is not absolute.

Recently, the US Supreme Court struck down two provisions o the Communications Decency Act (CDA), 1996, seeking to protec

nors from harmful material on the Internet precisely because they ridge the freedom of speech protected by the first amendment.

Moreover, the vagueness in the CDA's language, the ambiguities garding its scope and difficulties in adult-age verification, make DA unfeasible in its application to a multifaceted and unlimited rm of communications such as Internet.

Sweden has been enjoying the right to know since 1810. It was placed in 1949 by a new Act which enjoyed the sanctity of being a art of the country's Constitution itself. The principle is that every wedish citizen should have access to virtually all documents kept by ıe State or municipal agencies.

In **Australia,** the Freedom of Information Act was enacted in December 1982. It gave citizens more access to the Federal Government's documents. With this, manuals used for making decisions were also made available. But in Australia, the right is curtailed where an agency can establish that non-disclosure is necessary for protection of essential public interest and private and business affairs of a person about whom information is sought.

Even in **Russia,** under Mikhail Gorbachev, it was realised that "the State does not claim monopoly of truth any longer". Glasnost has cast away the cloud of secrecy and stresses the priority of human values.

Even as steps are taken to ensure openness in matters affecting the public, there has to be a greater sense of responsibility on the part of users of information in the media and elsewhere. Journalists must ensure that they seek information in public interest and not as agents of interested parties.

India has so far followed the British style of administration Great Britain, Official Secrets Act, 1911 and 1989 are intende defend national security by rendering inaccessible to the p certain categories of official information. However, the goverm recognises that access to information is an essential part o accountability.

A recent legislation governing access to public informa includes **Local Government (Access to Information) A 1985; the Environment and Safety Information Act, 19 and the Access to Health Records Act 1990 are such la On the other hand, Data Protection Act, 1984; the Acce to Personal File Act; the Access to Medical Reports An 1988, and the Consumer Credit Act, 1974, all provide so protection for different aspects of personal information.**

LANDMARK JUDGEMENTS:

The need for Right to Information has been widely felt in sectors of the country and this has also received judicial recogniti through some landmark judgements of Indian courts.

A Supreme Court judgement delivered by Mr. Justice Mathew considered a landmark. In his judgement in the state of UP vs. R Narain (1975) case, Justice Mathew rules-In a government responsibility like ours, where all the agents of the public must b responsible for their conduct, there can be but few secrets.

The people of this country have a right to know every public ac everything that is done in a public way by their public functionaries They are entitled to know the particulars of every public transactio in all its bearing. Their right to know, which is derived from th

ıcept of freedom of speech, though not absolute, is a factor which ıuld make one wary when secrecy is claimed for transactions ich can at any rate have no repercussion on public security. **But ɛ legislative wing of the State did not respond to it by acting suitable legislation for protecting the right of the ople.**

According to Attorney General Soli Sorabjee: It was in 1982 that ɛ right to know matured to the status of a constitutional right in the lebrated case of S P Gupta vs. Union of India (AIR) 1982 SC 49), popularly known as Judges case. **Here again the claim for ivilege was laid before the court by the Government of ıdia in respect of the disclosure of certain documents.**

The Supreme Court by a generous interpretation of **the ıarantee of freedom of speech and expression elevated the ght to know and the right to information to the status of a ındamental right, on the principle that certain narticulated rights are immanent and implicit in the numerated guarantees.**

The court declared – The concept of an open government is the lirect emanation from the right to know which seems to be implicit in he right of free speech and expression guaranteed under article 19 1) (a).

The Supreme court of India has emphasised in the SP Gupta case 1982) that **open Government is the new democratic culture of an open society towards which every liberal democracy is moving and our country should be no exception.** In a country like India which is committed to socialistic pattern of society, right to

know becomes a necessity for the poor, ignorant and illi masses.

In 1986, the Bombay High Court followed the SP G judgement in the well-known case Bombay Environme Group and others vs. Pune Cantonment Board.

The Bombay High Court distinguished between ordinary citizen looking for information and groups of so activists. This was considered a landmark judgem concerning access to information.

MOVEMENT FOR THE RIGHT TO INFORMATIO

The Rajasthan experience:

Simultaneously very significant development has taken place. T demand for Right to Information has taken the form of m movement at the grass root level. A mass based organisation calbu the **Mazdoor Kisan Shakti Sangathan (MKSS) took an initiative to lead the people in a very backward region Rajasthan - Bhim Tehsil to assert their right to informatio** by asking for copies of bills and vouchers and names of persons wh have been paid wages mentioned in muster rolls on the constructio of schools, dispensaries, small dams and community centres. O paper such development projects were all completed, but it wa common knowledge of the villagers that there was gros misappropriation of funds with roofless school buildings, dispensarie without walls, dams left incomplete and community centres havin no doors and windows.

After years of knocking at officials' doors and despite the usual athy of the State government, MKSS succeeded in getting otocopies of certain relevant documents. Misappropriation of ds was clearly obvious.

In some cases, the **muster rolls** contained names of persons who her did not exist at all or died years before. This incident is more n sufficient to show the importance of the ability of information for dicating mal-practices. **With so many scandals emerging m time to time, it becomes vital for the management of blic fund and survival of democracy.**

MKSS organised a ***Jan Sunwai*** (People's hearing), the first ever the history of Rajasthan. Politicians, administrators, landless bourers, private contractors were all invited to listen, respond and, willing, to defend themselves. Popular response was phenomenal, t village officials and politicians stayed away and remained silent, nd thereby weakened their position and darkened their image.

Between December 1994 and April 1995, several other public earings were organised. People's anger made one engineer of the tate Electricity Board to return in public an amount of Rs. 15,000 he ad extracted from a poor farmer. **This grass root movement pread fast to other areas of Rajasthan and to other States stablishing firmly that information is power and people hould have the right to official information.**

In 1996, Justice PB Sawant, the Chairman of the Press Council of ndia, drafted the bill keeping in view the dire need of the day and he observations made by eminent persons that in a democracy, it is he people who are the masters and those utilising public resources

and exercising public power are their agents. The draft Bill submitted to the Government of India on 1996. The core of the clause 3 which says:

(i) Every citizen shall have the Right to Information from body;

(ii) It shall be the duty of the public body to maintain all records duly catalogued and indexed;

(iii) The public body shall be under a duty to make available the person requesting information, as it is under an obligation to obtain and furnish and shall not withhold any information or limit its availability to the public except the information specified in Clause 4, and

(iv) All individuals whether citizens or not, shall have the rights such information that affects their life and liberty;

The Bill defines information as any fact relating to the affairs of public body and records relating to its affairs. Public body includes (a) state within the meaning of Article 12 of the Constitution of India (b) all public undertakings and non-statutory authorities and (c) company, corporation, society, trust, firm or a co-operative society whether owned or controlled by the Government or by private individuals and institutions whose activities affect the public interest.

The Bill says that Right to Information is subject to restrictions on grounds in clause (s) to Article 19(1) (a) such as the security of the State. Clause (r) (1) of the Bill reproduces many of them and also adds 'Investigation of an Offence.' Sub-Clauses (2) and (3) include personal or medical information of a private nature and trade and commercial secrets protected by the law.

he Bill also enumerates the procedure for the enforcement of this t. The officer in charge will be held responsible in the event of sal of information, and information must be furnished within 30 s of application. The officer must provide solid reason for any ısal and appeal against refusal should be made to the principal l judge of the region.

Keeping in view the burning problem, the Govt. of India, partment of Personnel decided to set-up a Working Group January 2, 1997 under the chairmanship of Mr. HD ıouri.

The Working Group on the 'Right to Information and omotion of Open and Transparent Government' submitted s comprehensive and detailed report and the draft Bill on reedom of Information on 24 May 1997.

The salient features of the Bill were:

(i) When enacted, it will also apply to State governments over riding State legislations to the extent they clash with the Central legislation;

(ii) A fee would be paid by the citizen while seeking information from Government, and the officer or the department concerned can be held responsible and taken to a Consumer Court for not providing the information within the prescribed time limit of 30 days;

(iii) Every Government department should appoint a Public Information Officer for this purpose;

(iv) Section 5 of the Official Secrets Act should be su amended to make it easier for a citizen to obtain o information, and information can be withheld only in re of especially 'exempted' items;

(v) Clauses 123 and 124 of the Indian Evidence Act w inhibit public officials from submitting information to Co should be suitably amended, and

(vi) The basis and the procedure for classification of off documents (as 'top Secret', 'Secret' and 'confidential') sho be suitably amended so that availability of information to public becomes the rule rather than the exception.

Not only the Central and the State Ministries, but al public sector undertakings, municipal bodies a panchayats and other bodies substantially funded Government, would come within the purview of the Act.

The Press Council of India, the Press Institute of Indi the National Campaign for People's Right to Informatio and the Forum for Right to Information unanimous submitted the resolution to Government of India to amen the proposed Bill on February 20 this year.

Main Points of Resolution:

(i) The Right to Information should also be extended in respec of companies, NGOs and international agencies whos activities are of a public nature and have a direct bearing o public interest.

i) The law must contain strong, penal provisions against wilful and wanton withholding or delay in supplying information or deliberately supplying misleading or inaccurate information.

iii) The law should contain an appeal mechanism of an independent nature to provide reliable redress to any citizen dissatisfied with any decision of a public authority under this law. In the present draft Bill, all appeals are to other Government authorities.

iv) The categories of information, which can be restricted or withheld by the Government, are too wide in the draft Bill. In particular, the restriction on disclosing internal nothings and official correspondence between public officials and offices has no justification whatsoever. In a democracy, people have the right to know how and why a particular decision has been arrived at and who made what recommendations with what justification. We do not support the view that this will deter candour in the expression of views of public servants. Honest public servants expressing their opinions honestly cannot be deterred by the knowledge that their opinions will become known to the people.

(v) Similarly the restriction on confidential communications between the State and Centre and their agencies have no justification, unless they harm public interest.

(vi) The restriction on disclosure of the record of discussions of Secretaries and other public servants also needs to be removed.

Right to Information (RTI) is an Act of the Parliamen India to provide for setting out the practical regime of ri to information for citizens and replaces the erstwh Freedom of information Act, 2002.

Under the provisions of the Act, any citizen of India m request information from a "public authority" (a body Government or "instrumentality of State") which is requir to reply expeditiously or within thirty days.

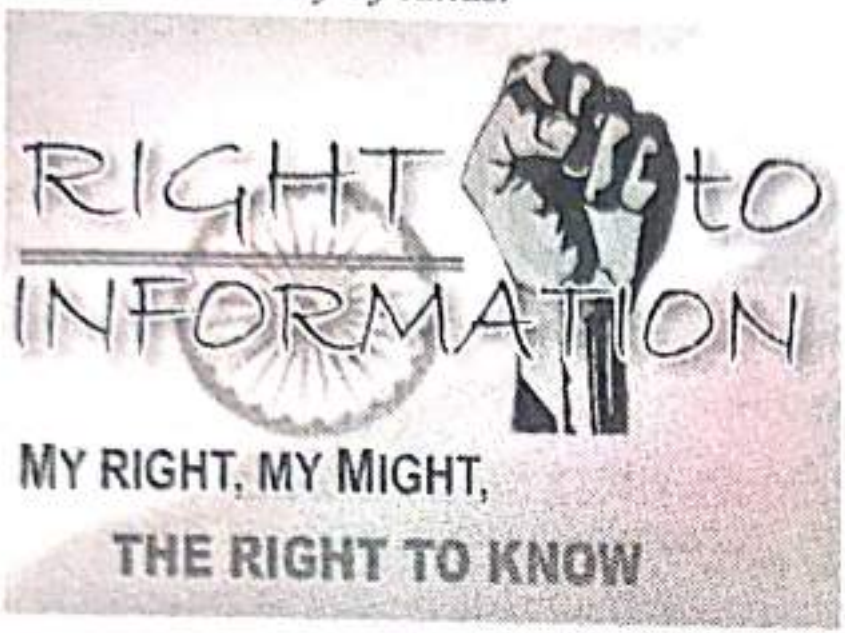
The Act also requires every public authority t computerise their records for wide dissemination and t proactively certain categories of information so that th citizens need minimum recourse to request for informatio formally.

This law was passed by Parliament on 15 June 2005 and came fully into force on 12 October 2005. The first application was given to a Pune police station. Information disclosure in India was restricted by the Official Secrets Act 1923 and various other special laws, which the new RTI Act relaxes. It codifies a fundamental right of citizens.

The Act covers the whole of India except Jammu and Kashmir, where J&K Right to Information Act is in force. **It covers all constitutional authorities, including the executive, legislature and judiciary; any institution or body established or constituted by an act of Parliament or a state legislature.**

It is also defined in the Act that bodies or authorities established or constituted by order or notification of appropriate government including bodies "owned, controlled or substantially financed" by

government, or non-Government organizations "substantially financed, directly or indirectly by funds.



(2) RTI ACT: Background and Evolution:

The Right to Information Act (RTI) is an Act of the Parliament of India "to provide for setting out the practical regime of right to information for citizens" and replaces the erstwhile Freedom of information Act, 2002.

The Act applies to all States and Union Territories of India except Jammu & Kashmir. Under the provisions of the Act, any citizen may request information from a "public authority" (a body of Government or "instrumentality of State") which is required to reply expeditiously or within thirty days.

The Act also requires every public authority to computerise their records for wide dissemination and to proactively certain categories of information so that the citizens need minimum recourse to request for information formally.

It is an initiative taken by the Department of Person and Training, Ministry of Personnel, Public Grievances a Pensions.

Similarly the restriction on confidential communications betwe the State and Centre and their agencies have no justification, unle they harm public interest. The restriction on disclosure of the reco of discussions of Secretaries and other public servants also needs t be removed.

(3) ENACTMENT OF LEGISLATION IN STATES: An India experience:

Inspired and encouraged by the exercises taken up by the Pres Council of India, Working Group and the Central Government, the State Governments also yielded under popular pressure and started preparing draft legislation on Right to Information.

A number of States have already introduced the Bill on Right to Information, before the Freedom of Information Bill, 2000 introduced in the Lok Sabha.

As per clause (18), the Bill, 2000 empowers the State Government to make rules to carry out the provisions of the Act. The matters in respect of which such rules may be made are specified therein. These matters relate to, inter alia, the fee payable to obtain information from any organisation, the authority to be prescribed before which appeal may be preferred against the decision of the Public Information Officer and any other matter which is required to be prescribed.

In this context, **Tamil Nadu was the first State to set an example by introducing the Right to Information Act on 17**

April 1996. Chief Minister, M. Karunanidhi lost no time in introducing the legislation to ensure access to information about government administration. The Bill was modelled on a draft legislation recommended by the Press Council of India.

The enshrinement of the Right to Information in a statute as proposed in Tamil Nadu is not clear as to how the proposed act will apply to Panchayat Unions, Municipalities and Panchayat. The enacted legislation was full of exemptions and inadequacies, so it has failed to evoke much response from the public and devoted NGOs and other concerned activists. "Frontline" editor N. Ram observed that the Tamil Nadu legislation, in its introduction, made all the right noises. It was the catalogue of exceptions carried in fine print that made the act an uninspiring model for others to emulate.

Goa was the second State to enact the Right to Information legislation. Information Minister Dominic Fernandes invited the opinion of the Union of journalists as well as several NGOs. Before the bill was introduced in the House for consideration, he also took the other necessary measure to withdraw the unpopular circular. It was issued in Oct 1994 by the State government, preventing bureaucrats from divulging information to the press.

Despite tall claims made by the State government regarding transparency and openness to strengthen democracy, Goa Act also ironically contains several peculiar provisions, which allow the State to withhold information without sustaining reasons for it. The Act needs further clarification on the vague exemptions mentioned in it. It was also not clear as to who would be the competent authority to furnish the information.

Before the bill was introduced in the **Madhya Pradesh** Assembly, however, in certain places like Bilaspur and Korba, the local authorities acquired the access to information. The Divisional Commissioner, Bilaspur initiated in the matter of the Public Distribution System that the citizens were allowed the access to details of food-grains and commodities allotted to their areas and their distribution. The scheme was not only restricted to Public Distribution System, it was also extended to development programmes and pollution awareness.

It was observed that the Right to Information has considerably reduced black-marketing and corruption in public distribution system. Moreover, in polluted areas like Korba, the sharing of information on pollution level has raised public consciousness. As a result, officials have become careful about monitoring and controlling pollution level.

Chief Minister Digvijay Singh introduced the Right to Information Bill, 1998. The Bill aimed at providing transparency in the administration. It was passed by the Madhya Pradesh Assembly on April 30 the same year.

The grassroot movement led by MKSS compelled the **Rajasthan** Government to act in the direction to prepare the Right to Information bill. The chief Minister assured in the state assembly in 1995 that the Government was willing to grant the Right to Information as a basic right to the citizens and any person could obtain photocopies (on payment of prescribed fee) of any document relating to development works undertaken in the previous five years.

The assurance was not made good for almost a year. Meanwhile, the other sister organisations also joined hands with MKSS to start an agitation on a large scale and declared an indefinite strike. It was called off when a high level committee was appointed to work out the modalities of how photocopies could be provided in relation to the order issued on April 6, 1996.

In **Karnataka,** access to information was existing through the Karnataka Freedom of Press Bill 1983. The essential features of the legislation were (i) immunity to a journalist from disclosure of the source of information (ii) right to access to public documents and (iii) penalty for causing hurt to a journalist on duty.

The storm wind of the Right to Information legislation reached Karnataka also. The State government's irrigation department took a revolutionary step of making the minute details such as tender awarding of a contract, money allocated and expenditure available to the public.

The two-day seminar jointly organised by the State government Publicity Information Department and CHRI provide the platform to social activists, politicians and press people to think jointly over the Right to Information. By this exercise, the government agreed to introduce the demanded Bill. The state of Karnataka attempted to initiate the weak law.

The Maharashtra government also passed the Right to Information Bill. The legislation will empower the citizens with the Right to Information about various government schemes, their stages of implementation and other details.

Meanwhile the other States Delhi, Gujarat and Kerala have also decided to introduce the Right to Information Bill in their respective assemblies.

(4) FREEDOM OF INFORMATION BILL, 2000:

The most significant milestone in the history of legislation of our country is the introduction of the Freedom of Information Bill 2000 in the Lok Sabha. The defined objective is: it will enable the citizens to have an access to information on a statutory basis. With a view to further this objective, clause of the proposed Bill specifies that subject to the provisions of this Act, every citizen shall have the right to freedom of information. Obligation is cast upon every public authority under clause to provide information and to maintain all records consistent with its operational requirements duly catalogued, indexed by the appropriate Government or the competent authority.

As in our present democratic framework, free flow of information for the citizens and non-Government institutions suffers from several existing legal inadequacies, lack of infrastructure at the grass root levels and an attitude of secrecy within the Civil Service as a result of the old framework of rules.

In the global context, it is important that the access to government-controlled information should also help to bridge the knowledge gap between the rulers and the ruled, the managers and the beneficiaries and between the producers, distributors and the consumers. The inequality in knowledge is also responsible for social superiority and inferiority complexes reinforcing and perpetuating social and economic divides. These in turn create a political clout and

erage in favour of the possessors of the exclusive information, ite disproportionate to the value of the information.

Above all, strong will power is required. Only making the gislation will not do justice to the information seekers ıtil it is implemented with strong conviction. The laws only ınnot create a climate for democratic way of life. Laws by emselves are not adequate. What is needed is that such progressive ws must be backed by people's movement. A law for **right to ıformation** or **Freedom of Information** can be made effective nly through people's active involvement. Private bodies are not ithin the Act's ambit directly.

It is an initiative taken by Department of Personnel and Training, Ministry of Personnel, Public Grievances and Pensions to provide a RTI Portal Gateway to the citizens for quick search of information on he details of first Appellate Authorities, PIOs etc. amongst others, besides access to RTI related information/disclosures published on he web by various Public Authorities under the Government of India as well as the State Governments.

The Right to information in India has been mired with controversies ranging from their use in political battles asking opponent degrees, or cases of blatant refusals to provide information on high profile projects to allegations of misuse by civil society.

(5) Features of RTI in India:

- **The Right to information in India is governed by two major bodies viz.**
- **Central Information Commission (CIC):** Chief Information commissioner who heads all the central

departments and ministries with their own p Information officers (PIO)s. CICs are directly under President of India.

- **State Public Information Officers or SPIOs:** Hea over all the state department and ministries the SPIO o is directly under the State Governor.
- State and Central Information Commissions independent bodies and Central Information Commiss has no jurisdiction over the State Information Commissio
- Every state in India has different rules and fee structures file an application through registered post without a tracking mechanism as covered in details in the report.
- Researchers and Activists have been proposing changes make the process easier, efficient and meaningful. One o demands state and central information systems under o Digital System to streamline information flow and provi proactive information backed by streamlined mandato reporting.

Accountability:

The Right to information (RTI Act 2005) was touted a one law which would bring in transparency and eradicat corruption by civil society direct involvement.

India being a federal state has many items in simultaneous list an projects have multiple departments working on them, and sometime projects are moved from one department to another.

With Central and State information commissions working in such a disconnect, and manual transfers of the request for information between departments lead to big delays, confusion, and loss of traceability.

It not only denies timely information, creates high barriers to information only a few with very strong motivations and means can cross, but puts a common citizen at the risk by exposing them directly to the departments and agencies which they are trying to find information on.

Digital RTI mission was initiated by a policy think tank based in Kochi (CPPR) to make Kerala the first RTI digital state in India.

The Right to Information Denied by Uttar Pradesh Irrigation Department after more than 8 months of a wait on under construction Gomti Riverfront Development Project. A group of researchers requested for environment Impact and Project Report on the project which is flagged for negative impacts, tax money wastage by environmental scientists and research reports

Fees:

A citizen who desires to seek some information from a public authority is required to send, along with the application (a Postal order or DD (Demand draft) or a bankers cheque) payable to the Accounts Officer of the public authority as fee prescribed for seeking information. If the person is from a disadvantaged community, he/she need not pay.

The applicant may also be required to pay further fee towards cost of providing the information, details of which shall be intim to the applicant by the PIO as prescribed by the RTI ACT.

(C) PROTECTION OF CITIZENS / PUBL INTEREST:

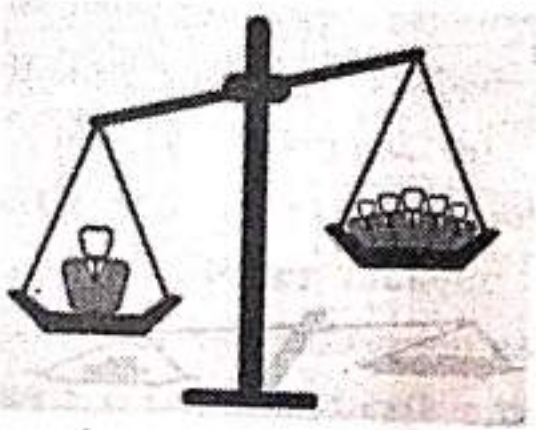
(1) Introduction:

PUBLIC INTEREST LITIGATIONS (PIL):

Definition of PIL:

It is a use of litigation, or legal action, which seeks advance the cause of a minority or disadvantaged groups individuals, or which raises issues of broad public conce It is a way of using the law strategically to effect soc change.

In simple terms, a PIL is a petition that an individual o non-government organisation or citizen groups, can file the court seeking justice in an issue that has a larger publ interest. It aims at giving common people an access to th judiciary to obtain legal redress for a greater cause.



(2) Public Interest Litigations in India:

Definition and meaning:

A citizen has a right to have legal resource when his/her rights have been reduced. A citizen can invoke writs in the High court or the Supreme court when his/her rights are violated. Several times, citizen's rights are violated and they are not able to avail of justice due to lengthy procedures, ignorance, illiteracy or poverty.

The Supreme Court of India initiated the Public Interest Litigations for the protection of interest of common people. It is the case filed in the court of law for the protection of public interest in various matters like pollution, terrorism, safety etc.

Public interest litigation is litigation for the protection of the public interest. In Indian law, **Article 32** of the Indian constitution contains a tool which directly joins the public with judiciary. **A PIL may be introduced in a court of law by the court itself (suo motu), rather than the aggrieved party or another third party.**

For the exercise of the court's jurisdiction, it is not necessary for the victim of the violation of his or her rights to personally approach the court. In a PIL, the right to file suit is given to a member of the public through judicial activism. The member of the public may be a non-governmental organization (NGO), an institution or an individual.

The Supreme Court of India, rejecting the criticism of judicial activism, has stated that the judiciary has stepped in to give direction because due to executive inaction, the laws enacted by Parliament

and the state legislatures for the poor since independence have been properly implemented.

PIL is not defined in any statute. It is the outcome judicial activism to take cognisance of a cause at instance of any person even if it does not affect h personally, but affects the public at large.

Origin of PIL:

The concept of Public Interest Litigation was first developed United States of America where the main aim was to have peopl participation in government decision making. However, in India, aims at moral and humane process which provide justice to a victi who is an individual or a group.

(3) Need and procedure:

Public interest litigation is the use of the law to advance huma rights and equality, or raise issues of broad public concern.

Features of PIL:

- It helps advance the cause of minority or disadvantaged group or individuals.
- Public interest cases may arise from both public and private law matters.
- Public law concerns the various rules and regulations that govern the exercise of power by public bodies.
- Private law concerns those cases in which a public body is not involved, and can be found in areas such as employment law or family law.

- Public interest litigation is most commonly used to challenge the decisions of public authorities by judicial review.
- Judicial review is a form of court proceeding in which a judge reviews the lawfulness of a decision or action, or a failure to act, by a public body.
- Judicial review is concerned with whether the law has been correctly applied, and the right procedures have been followed.

The value of public interest litigation:

Public interest litigation can:

- Clarify the law.
- Hold public bodies to account by ensuring that they make appropriate decisions, act fairly and transparently and within the remit of their powers.
- Help develop the law by giving judges the opportunity to interpret legislation.
- Give vulnerable people a voice by highlighting an important issue and providing a platform for advocating for their rights.

Raise awareness of important issues encouraging public debate and media coverage.

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- ***In December 1979, Kapila Hingorane had filed a petition regarding the condition of the prisoners detained in the Bihar jail, whose suits were pending in the court. The special thing about this petition was that it was not filed by any single prisoner, rather it was filed by various prisoners of the Bihar jail. The case was filed in the Supreme Court before the bench headed by Justice Krishnam Malhotra. This petition was filed by the name of the prisoner, Hussainara Khatoon, hence the petition came to be known as Hussainara Khatoon Vs State of Bihar. In this case, the Supreme Court upheld that the prisoners should get benefit of free legal aid and fast hearing. Because of this case 40,000 prisoners, whose suits were pending in the court, were released from the jail.***
- ***There after many cases like this have registered in the supreme court. It was in the case of SP Gupta vs Union***

of India that the Supreme Court of India defined the term "public interest litigation" in the Indian Context.

- The concept of public interest litigation (PIL) is in consonance with the principles enshrined in Article 39A of the Constitution of India to protect and deliver prompt social justice with the help of law. Before the 1980s, only the aggrieved party could approach the courts for justice.
- After the emergency era the high court reached out to the people, devising a means for any person of the public (or an NGO) to approach the court seeking legal remedy in cases where the public interest is at stake.
- **Justice P. N. Bhagwati and Justice V. R. Krishna Iyer were among the first judges to admit PILs in court. Filing a PIL is not as cumbersome as a usual legal case; there have been instances when letters and telegrams addressed to the court have been taken up as PILs and heard.**
- **According to Justice Bhagvati, PIL attempts to deliver justice to the poor, downtrodden masses who cannot get access to the court of law due to their disabilities.**

Definition:

Public Interest Litigation can be defined as 'an action instituted by an individual or social action groups for the enforcement of the constitutional or legal rights of the general public or of an identifiable class of persons, within the domain of public law'.

It facilitates an effective realization of collective, diffused rights for which individual litigation is neither practicable or an efficient method. PIL includes modifying the traditional requirements of locus standi, liberalising the procedure to file writ petitions, creating innovative remedies etc.

Misuse of PIL:

- **PIL is a rule of law declared by the courts of record. However, the person (or entity) filing the petition must prove to the satisfaction of the court that the petition is being filed for the public interest and not as a frivolous litigation for pecuniary gain.** The 38th Chief Justice of India, S. H. Kapadia, has stated that substantial "fines" would be imposed on litigants filing frivolous PILs.
- His statement was widely welcomed, because the instance of frivolous PILs for pecuniary interest has increased; a bench of the high court has also expressed concern over the misuse of PILs. The bench has issued a set of guidelines it wanted all courts in the country to observe when entertaining PILs.

Comparison between normal litigation and Public Interest Litigation

In normal litigation an aggrieved party while in case of PIL any concerned citizen can file a petition

Locus Standi* required in case of normal litigation while it is not required in PIL

Normal petition deals with protection of all persons while the PIL with poor, weaker and exploited people

The normal petition involves Procedural justice while the PIL involves Substantive justice

In normal petitions the judiciary is Passive while it is Active as well as Flexible in PIL

****In Law, locus standi means the right to bring in action, to be heard in court, or to address the court on a matter before it. It is the ability of a party to demonstrate to the court sufficient connection to and harm from the law or action challenged to support that party's participation in the case.***

The parameters within which PILs can be entertained have been laid down. The credentials, the motive and the objective of the petitioner have to be apparently and patently above-board. Otherwise the petition is liable to be dismissed at the threshold, the judgment stated.

(4) Scope of PIL:

There are variety of problems which are dealt with PIL:

- Child labour.
- Violence and discrimination against women.
- Gender discrimination in employment.
- Bonded labour.
- Protection of nation's heritage.
- Reduction of noise pollution.
- Administration of educational institutes.

- Implementation of programmes for the scheduled Castes a the Scheduled Tribes.
- Rights of prisoners.
- Use of lead free petrol.
- Protection of natural environment.
- Administration of Public Health Institutes etc.

(5) Procedure to file PIL: A guide to filing a Public Interes Litigation (PIL):

Who can file it?

- Any Indian citizen can file a PIL, the only condition being that it should not be filed with a private interest, but in larger public interest. At times, even the Court can take cognizance of a matter if it is one of utmost public importance, and appoint an advocate to handle the case.

How does one decide on filing a PIL?

- An advocate who has been filing PILs in Chennai High Court says it would be good to give a reasonable opportunity for the other party to respond to the issue that the individual or the group has raised, before filing the PIL.
- For example, if you have taken up a matter that demands government action or policy change, then first raise that issue with the authorities, bring it to their knowledge and ask them how are they going to solve it. Send them a representation in the first place.

- Give them some time a month or two to reply. If they fail to respond or if you are unhappy with their response, then it's the time to file a petition.

Where can PILs be filed?

- PILs can be filed either in the High Court or in the Supreme Court.

What is the procedure for filing a PIL?

- One has to do thorough research before filing a PIL. In case of filing a PIL concerning several individuals, it is important and the best course for the petitioner to consult all affected interest groups.
- Once you decide to file a PIL, collect all relevant information and documents to back your case. You can argue in person or appoint an advocate to fight the case. In any case, it is advisable to consult an advocate before filing a PIL. If you intend to argue in person, be better prepared to explain the issue and convince the court in the little time that you are given.
- Once you are ready with the PIL copy and intend to file it in the High Court, submit two copies of the petition to the court. Also, a copy of the petition has to be served to each respondent in advance. And this proof of serving the copy to the respondents has to be affixed in the petition.
- If you are filing PIL in the Supreme Court, then five copies of the petition are to be filed before the court. Respondent is

served with the copy only when the notice is issued b the court.

What is the cost incurred to file a PIL?

- A PIL itself is cheap compared to other court cases. One h to pay a court fee of Rs 50 for each respondent and affi with the petition. However, the expense for fighting the ca depends on the advocate the petitioner chooses to arg the case.

What is the difference between a PIL and a Wri Petition?

- Writs are filed by individuals or institutions for their own benefit and not for public interest, whereas PILs are filed fo a larger good.

What are the issues that cannot be filed under PIL?

- The Supreme Court has issued a set of PIL guidelines according to which the following matters will not be allowed as PILs:
- Landlord-tenant matters.
- Service matters.
- Matters pertaining to pension and gratuity.
- Complaints against Central and State government departments and Local Bodies except those relating to items 1 to 10 mentioned in the list of guidelines.
- Admission to medical and other educational institutions.

- Petitions for early hearing of cases pending in High Court or subordinate courts.

Do judges normally admit the PILs?

- It differs from judge to judge. PILs are handled by the Chief Justice of the court, hence it purely depends on how the sitting judge perceives the matter. The average admission rate may range from 30 to 60 per cent. Normally PILs are taken into consideration if the judges are convinced of the fact that the subject is of significance and is in the interest of the public.

How long does it take for the closure of the case?

- That depends on the case. If the matter is of utmost importance pertaining to lives of individuals, human rights violation etc., the court would take up the case immediately,
- conduct the hearing and dispose of the matter. But in general, due to piling up of PILs in courts, the hearing and closure of the case is time consuming, often it takes years. However, in between the hearings, the court may issue directions to the authorities to perform certain actions as and when needed.
- It's only after the final hearing of both parties that a judgement is given.

Are PILs often misused?

- It is interesting to know that the misuse or abuse of PILs is growing to be a serious concern in India, where the number of cases pending before the courts is already huge.

- In 2010, the Supreme Court came down heavily frivolous public interest litigation petitions for personal extraneous reasons, and eventually laid down cer guidelines to be followed by courts in entertaining PILs.
- The filing of indiscriminate petitions "creates unnecess strain on the judicial system and consequently leads inordinate delay in disposal of genuine and bona fi cases," said a Bench consisting of Justices Dalveer Bhand and Mukundakam Sharma.
- Tracing the origin and development of PIL in vario countries, Justice Bhandari, writing the judgment, sai "The courts' contribution in helping the poorer sections b giving a new definition to life and liberty and in protecti ecology, environment and forests is extremely significant However, the Bench said, "unfortunately, of late, such a important jurisdiction, which has been carefully carved ou created and nurtured with great care and caution by th courts, is being blatantly abused by filing some petition with oblique motives."

(6) Public Interest Litigation Cases That Changed Our Lives Forever:

Landmark case of PIL One of the crowning achievements of India's judiciary has been the Public Interest Litigation (PIL). This enabled the court to hear out public grievances and deliver justice on key social issues. The Court has to innovate new methods and strategies to provide access to justice to large masses of people who are denied basic

human rights, to whom freedom and liberty have no meaning.

– Justice PN Bhagwati (SP Gupta vs Union of India, 1981)

These are some of the many milestones of the PIL revolution in India:

(1) Sheela Barse vs State of Maharashtra (February 15, 1983):

This was a historic judgment that dealt with the issue of custodial violence against women in prisons.

This resulted in an order facilitating separate police lockups for women convicts in order to shield them from further trauma and brutality.

(2) MC Mehta vs Union of India (Pollution in the Ganga):

This judgement delivered on January 12, 1988, lashed out at civic authorities for allowing untreated sewage from Kanpur's tanneries making its way into the Ganges.

A taxi driver sleeps at a cabstand in New Delhi, March 29, 2001. (Photo: Reuters)

It was the beginning of green litigation in India. In 1996, environmentalist M C Mehta's PIL, (M C Mehta vs Union of India on December 30, 1996) resulted in stringent orders against Mathura refineries for polluting the ambient air around the Taj Mahal.

Yet another PIL by M C Mehta resulted in the CNG ver (July 28, 1998) that forced the vehicles in the capital to switch a different fuel in order to keep a check on vehicular pollution

(3) When the court kept its distance from policy decision

The disinvestment season initiated by the NDA-1 governm to sell 51% stake in BALCO (Bharat Aluminium Compa Limited) was challenged by the Supreme Court in 2001.

Quite significantly the Supreme Court in its decision December 10, 2001 said,

PIL is not a pill or a panacea for all wrongs. There have bee in recent times, increasingly instances of abuse of PIL. Therefor there is a need to re-emphasise the parameters within which PI can be resorted to by a Petitioner and entertained by the Court

Executive vs Judiciary:

The judges also drew a line distinguishing between th domain of the executive and the judiciary in a bid to avoid th clash between the two. Thus, the judgement read:

Public Interest Litigation was not meant to be a weapon t challenge the financial or economic decisions which are taken b the Government in exercise of their administrative power.

(4) The 2G Judgement:

The judiciary chose not to impinge on the authority of th government and its policy decisions in 2001, but a decade late the Supreme Court chose to step into what was described as on of the biggest scams in post-independent India.

On February 2, 2012, the top court criticised a policy decision - one taken to use 'first-come-first-served' as the basis to allocate natural resources. The court's advice was to use auctions for allocations.

This was the result of separate PILs by Subramanian Swamy and Prashant Bhushan and it embarrassed the UPA government. Though some saw it through the prism of 'judicial overreach', that didn't stop the court from scrapping 122 2G licences.

(5) Indira Sawhney judgment:

On November 16, 1992, the Supreme Court responded to a PIL filed by lawyer Indira Sawhney and introduced 27% reservation for backward classes in posts and services under the Government of India.

Citing the age old Varna system, the court justified its reason for reservation. The court also spelled out that such a system should not exceed a tenure of ten years once a particular section is adequately represented in society.

The Indian Judiciary adopted the technique of PIL for the cause of environmental protection in several cases. The Supreme Courts and the High Courts encouraged strangers to present the petition on behalf of poor and ignorant people. The basic ideology behind this is to give access to justice to the needy who have lack of knowledge and finance. In PIL a public spirited individual or organisation can maintain petition on behalf of poor and ignorant individuals.

In a landmark case, Vellore Citizen's Welfare Forum Vs. Union of India (5), The Supreme Court allowed standing to a public spirited

social organisation for protecting health of residents of Vellore, Tamil Nadu state against the toxic chemical discharge done by tannery around river Palar. The court ordered tanneries to close.

In the area of environmental protection PIL has proved to be a effective tool.

Source: *legalservicesindia.co*

(D) THE CITIZENS' CHARTER: PUBLIC SERVI GUARANTEE ACTS; INDIAN EXPERIENCE

(1) Introduction:

In every country the government remains committed t provide services satisfactorily to its citizens. A charter is a set of demands. Citizen's charter includes a set of demands and expectations which the government is expected to fulfil.

Basic Concept, Origin and Principles:

All over the world it has been recognised that good governance is essential for sustainable economic and social development. The three essential aspects emphasised in good governance are transparency, accountability and responsiveness of the administration.

"Citizens' Charters" initiative is a response to the quest for solving the problems which a citizen encounters, day in and day out, while dealing with the organisations providing public services.

The concept of Citizens' Charter enshrines the trust between the service provider and its users. The concept was first articulated and implemented in the United Kingdom by the Conservative Government of John Major in 1991 as a national programme with a simple aim to continuously improve the quality of public services for

the people of the country so that these services respond to the needs and wishes of the users. The programme was re-launched in 1998 by the Labour Government of Tony Blair which rechristened it "Services First".

(2) Objectives:

The basic objective of the Citizens' Charter is to empower the citizen in relation to public service delivery. Six principles of the Citizens' Charter movement as originally framed, were:

(i) **Quality:** Improving the quality of services;

(ii) **Choice:** Wherever possible;

(iii) **Standards:** Specify what to expect and how to act if standards are not met;

(iv) **Value:** For the taxpayers' money;

(v) **Accountability:** Individuals and Organisations; and

(vi) **Transparency:** Rules/ Procedures/ Schemes/Grievances.

These were later elaborated by the Labour Government as following nine principles of Service Delivery (1998):

(1) Set standards of service.

(2) Be open and provide full information.

(3) Consult and involve.

(4) Encourage access and the promotion of choice.

(5) Treat all fairly.

(6) Put things right when they go wrong.

(7) Use resources effectively.

(8) Innovate and improve.

(9) Work with other providers.

World over it is recognised that good economic and socia and governance is necessary for sustainable development. The essential aspects of it are transparency, accountability and responsiveness of the administration. Citizen's Charter is such an response for solving citizen's problem.

(3) The International View:

The UK's Citizens' Charter initiative aroused considerable interest around the world and several countries implemented similar programmes e.g. Australia (Service Charter, 1997), Belgium (Public Service Users' Charter 1992), Canada (Service Standards Initiative, 1995), France (Service Charter, 1992), India (Citizens' Charter, 1997), Jamaica (Citizens' Charter 1994), Malaysia (Client Charter, 1993), Portugal (The Quality Charter in Public Services, 1993), and Spain(The Quality Observatory, 1992) (OECD, 1996).

Some of these initiatives are very similar to the UK model, while others chart new ground by leaning on the service quality paradigm

of the Total Quality Management (TQM) movement. Other initiatives are pitched somewhere in between. Even in the UK, in the context of the Next Steps/Modernising Government Initiatives, Citizens' Charters have acquired a service quality face for delivery of public services.

The quality tools adopted for improving public services include the Business Excellence Model, Investors in People, Charter Mark, ISO 9000 and Best Value (Government of UK, 1999).

The Government of **Malaysia** issued Guidelines on the Client's Charter in 1993 to assist government agencies to prepare and implement Client's Charter, which is "a written commitment by an agency to deliver outputs or services according to specified standards of quality" (Government of Malaysia, 1998).

A Best Client's Charter Award was instituted in 1993. The Malaysian system of Client's Charter closely follows the UK Model. A distinction is made between agency-wide and unit charters. The concept of 'service recovery' enjoins taking steps to restore the trust and confidence of the client in a proactive manner when things go wrong.

The Commonwealth Government of **Australia** launched its Service Charter initiative in 1997 as part of its on-going commitment to improve the quality of service provided by agencies to the Australian community by moving the government organisation away from bureaucratic processes to customer-focused outcomes.

Service Charters are considered a powerful tool for fostering change and require the organisation to focus on services delivered, to measure and assess performance, and to initiate performance

improvement. By providing goals for agencies to strive towards, Charter acts as a surrogate for competition where none ex (Department of Finance and Administration, 1999).

The Treasury Board of **Canada** Secretariat started a Servi Standard Initiative in 1995 which took its cue from the Citizen Charters of the United Kingdom, but enlarged the scop considerably. This Service Standard Initiative in Canada was starte against the backdrop of citizen expectations relating to friendly respectful and courteous service; faster response times; extended hours at government offices; and "one-stop-shopping".

A comparison of these four major Citizens' Charter initiatives shows that the service quality approach is rooted in them in different degrees. Once a decision is taken to make public services citizen-centric, the customer focus of the Total Quality Management (TQM) variety cannot be far behind.

In fact, the Citizens' Charter approach has several things in common with TQM. Both begin by focusing on meeting customer/citizen requirements. Other key common elements are conformance to standards, stakeholder involvement and continuous improvement.

(4) The Indian View:

- Over the years, in India, significant progress has been made in the field of economic development. This, along with a substantial increase in the literacy rate, (from 51.63% to 65.38% in the last decade) has made Indian citizens increasingly aware of their rights.

- **Citizens have become more articulate and expect the administration not merely to respond to their demands but also to anticipate them.** It was in this climate that since 1996 a consensus had evolved in the Government on effective and responsive administration.
- In a Conference of Chief Ministers of various States and Union Territories held on 24 May, 1997 in New Delhi, presided over by the Prime Minister of India, an "Action Plan for Effective and Responsive Government" at the Centre and State levels was adopted.
- One of the major decisions at that Conference was that **the Central and State Governments would formulate Citizens' Charters, starting with those sectors that have a large public interface (e.g. Railways, Telecom, Posts, Public Distribution Systems).**
- These Charters were required to include standards of service and time limits that the public can reasonably expect, avenues of grievance redress and a provision for independent scrutiny with the involvement of citizen and consumer groups.
- Department of Administrative Reforms and Public Grievances in Government of India **(DARPG)** initiated the task of coordinating, formulating and operationalising Citizens' Charters. Guidelines for formulating the Charters as well as a list of do's and don'ts were communicated to various government departments/organisations to enable them to bring out focused and effective charters.

- For the formulation of the Charters, the governme agencies at the Centre and State levels were advised t constitute a task force with representation from users, senio management and the cutting edge staff.

- A **Handbook** on Citizen's Charter has been developed by the Department and sent to all the State Governments/UT Administrations.

The Charters are expected to incorporate the following elements:

(i) Vision and Mission Statement;

(ii) Details of business transacted by the organisation;

(iii) Details of clients;

(iv) Details of services provided to each client group;

(v) Details of grievance redress mechanism and how to access it; and

(vi) Expectations from the clients.

Primarily an adaptation of the UK model, the Indian Citizens' Charter has an additional component of 'expectations from the clients' or in other words 'obligations of the users'. Involvement of consumer organisations, citizen groups, and other stakeholders in the formulation of the Citizens' Charter is emphasised to ensure that the Citizens' Charter meets the needs of the users. Regular monitoring, review and evaluation of the Charters, both internally and through external agencies, are enjoined.

Till April, 2006, 111 Citizens' Charters had been formulated by the Central Government Ministries/Departments/Organisations and 668 Charters by various agencies of State Governments & Administrations of Union Territories. Most of the national Charters are posted on the government's websites and are open to public scrutiny. The organisations with Citizens' Charters are advised to give publicity to their Charters through such means as print/ electronic media and awareness campaigns.

Comprehensive Website on Citizens' Charters

A comprehensive website of Citizens' Charters in Government of India ***(www.goicharters.nic.in)*** *has been developed and was launched by the Department of Administrative Reforms and Public Grievances on 31 May, 2002 This contains the Citizens' Charters issued by various Central Government Ministries/ Departments/ Organisations. The website provides useful information, data and links.*

(5) Exemplary implementation of the Citizens' Charter:

While the overall efforts and initiatives of the government on Citizens' Charter were continuing, it was realised that exemplary implementation of the Charter in a major public interface area of government would not only establish the new concept in the inertia-prone bureaucracy but also act as a role model for replication in other sectors/areas.

Model Citizen's Charter:

Role of banking sector:

The banking sector was identified for this purpo keeping in view the second phase of economic reforms. I because this sector was fairly advanced in terms of customer servi and was also taking advantage of information technology to spee up various processes.

Objective: The primary objective of this exercise was to build th Banking Sector as a model of excellence in the implementation of the Citizens' Charter.

Three major National level Banks, namely, Punjab National Bank Punjab and Sind Bank and Oriental Bank of Commerce, were selected for a Hand-Holding exercise by the DARPG in the year 2000.

The following key issues were highlighted for exemplary implementation of the Citizens' Charter:

(i) stakeholder involvement in the formulation of Citizens' Charters;

(ii) deployment of the Citizens' Charters in the Banks by full involvement of the staff, especially the employees at the cutting-edge level;

(iii) creation of awareness about the Charter amongst the customers of the Banks; and

(iv) special training for employees at all levels about the concept and implementation of Citizens' Charter.

After an evaluation of the current status of the Charters by the identified banks through independent agencies, Action Plans were chalked out to rectify shortcomings.

The Charters were, accordingly, revised and standardised on the basis of the model/mother Charter developed by the Indian Banks Association (IBA).

Training for employees of selected branches through master trainers, trained by the National Institute of Bank Management using a module developed in consultation with Department of ARPG were organised.

Several measures to give wide publicity to Citizens' Charter were also undertaken.

An external agency was engaged to once again assess and evaluate the implementation of Citizens' Charter of these banks at the end of this exercise and also to document the Hand-Holding Exercise.

National Institute of Bank Management was assigned this task which had since been executed and a documentation was brought out in the Year 2003.

(6) Evaluation of Citizens' Charters:

An evaluation of the Citizens' Charters of various government agencies was carried out by DARPG and Consumer Coordination Council, New Delhi, an NGO, in October 1998. The results were quite encouraging given the nascent stage of this initiative in India.

A brief questionnaire has been circulated to all Ministries Departments and State Governments/Union Territories to enable them to undertake an in-house evaluation of their Citizens' Charters. Organisations have also been advised to undertake external evaluations, preferably through NGOs.

During the Year 2002-03, DARPG engaged a professional agency to develop a standardised model for internal and external evaluation of Citizens' Charters in a more effective, quantifiable and objective manner.

This agency also carried out evaluation of implementation of Charters in 5 Central Government Organisations and 15 Departments/Organisations of States of Andhra Pradesh, Maharashtra and Uttar Pradesh.

This Agency was also required to suggest methods for increasing awareness, both within the organisation and among the users, and to suggest possible methods for orientation of management and the staff in the task of formulating and deploying Charters.

Key Recommendations:

(i) **Need for citizens and staff to be consulted at every stage of formulation of the Charter,**

(ii) **Orientation of staff about the salient features and goals/objectives of the Charter; vision and mission statement of the department; and skills such as team building, problem solving, handling of grievances and communication skills**

(iii) Need for creation of database on consumer grievances and redress,

(iv) Need for wider publicity of the Charter through print media, posters, banners, leaflets, handbills, brochures, local newspapers etc. and also through electronic media,

(v) Earmarking of specific budgets for awareness generation and orientation of staff, and

(vi) Replication of best practices in this field.

(7) Compendium on Citizens' Charters in Government of India:

With the objective of generating awareness among the citizens as well as government functionaries of the commitments of various organisations enshrined in their Citizens' Charter, the Department of Administrative Reforms and Public Grievances brought out a Compendium of abridged versions of all Citizens' Charters in Government of India in a book as well as in CD form on 14 May, 2003.

The Compendium contains the operative standards and quality of services proposed to be provided as also the public grievance redress mechanism as committed in the Citizens' Charters. The Compendium also contains the name, address, telephone number, e-mail address etc. of nodal officers for Citizens' Charters in Central Government Ministries/Departments/Organisations and also the list of website addresses of concerned Ministry/Department/Organisation.

The Compendium shall not only be useful to the citizens for rea reference, but will also enable them to critically review t functioning of these organisations. This would also help t organisations to compare the standards set by them, vis-à-vis, tho set by other organisations.

Regional Seminars:

Four Regional Seminars on Citizens' Charters were organise during the year 2001-02, with a view to bring national and state leve organisations along with other stakeholders including NGOs intelligentsia, media etc. on the same platform and to share experiences in formulation and implementation of Citizens' Charter.

These seminars were organised at Administrative Staff College o India, Hyderabad, Lal Bahadur Shastri National Academy o Administration, Mussoorie, R.C.V.P. Noronha Academy o Administration, Bhopal and Assam Administrative Staff College Guwahati. In all 24 State Governments/UT Administrations and 15 Central Government Departments/Organisations participated.

Capacity Building Workshops:

On the basis of the feedback received and experience gained in these seminars, it was decided to organise separate Capacity Building Workshops with specific focus on (i) formulation of Charter (ii) effective implementation of Charter and (iii) enhancing the capacity of trainers available at State Administrative Training Institutes/ Central Civil Services Staff Colleges.

Evaluation of Delivery of Services:

The Department of Administrative Reforms and Public Grievances has developed a model for conceptualizing and implementing a Scheme for recognizing excellence in service delivery by government organizations.

The Scheme has been tailor-made for government organizations with specific focus on citizen interface and expectations and is slated for implementation in the Ministries in a phased manner.

The model synthesizes the ground realities in India with International Best Practices and is based on proper implementation of citizen charters, effectiveness of public grievance redress mechanism and status of service delivery enablers from the citizen's perspective and efforts made by the departments in improving their own capability to deliver.

The model had been tested among several organizations and was presented before Workshops of NGOs, citizen groups and government departments. These discussions have eventually culminated in implementation of the certification requirements.

Using the tools provided by this model, government agencies can self-assess and improve quality of their service delivery, and over a period of time graduate to a level where an objective evaluation can be done and excellence can be publicly recognized.

Information and Facilitation Counters (IFCs):

Information and Facilitation Counter (IFC) is a facility set up by selected Central Government organisations to provide information to citizens about their programmes/schemes, rules and procedures etc.

as well as status of cases/applications. An IFC also acts as a noc point for redress of public grievances. The IFC, therefore, is physical manifestation of Citizens' Charter. Hence it has now bee decided to set up IFCs in all government ministries/departmen having Citizens' Charters. 105 Information and Facilitation Counte May I Help You/ Inquiry Counters have been set up so far.

Evaluation of the functioning of the IFCs was carried out by th DARPG and the Consumer Coordination Council. The organisation concerned have taken action on deficiencies pointed out in these evaluations. This Department also regularly monitors the working o the IFCs through a half-yearly return prescribed for all the organisations that have set up IFCs.

Future Vision: Development of Charter Mark:

In 1992, the UK Government introduced Charter Mark, a scheme for recognising and encouraging excellence in public service. To win a Charter Mark the organisation has to demonstrate excellence against the following nine Charter Mark criteria which correspond to the principles of public service delivery:

- **Performance Standards;**
- **Information and openness;**
- **Choice and Consultation;**
- **Courtesy and helpfulness;**
- **Putting things right;**
- **Value for money;**
- **Use satisfaction;**

- **Improvements in service quality; and**
- **Planned improvements and innovations.**

The Government of Malaysia also instituted a "Best Client's Charter Award" in 1993 based on the UK model.

In India, the DARPG has identified a professional agency to develop an appropriate Charter Mark scheme. This scheme will encourage and reward improvement in public service delivery with reference to the commitments and standards notified in the Charter. The 'Charter Mark' is proposed to be awarded after assessment by an independent panel of judges.

This would not only give a sense of achievement to the organisation awarded the Charter Mark but also promote a spirit of competitiveness amongst various organisations that have issued Citizens' Charter and generating awareness among citizens. A prototype has been developed by the professional agency and is in the process of validation in identified Departments/Organisations.

The implementation of Citizens' Charter is an on-going exercise because it has to reflect the extensive and continual changes taking place in the domain of public services. Indian Government continuously strives to serve the citizens in an effective and efficient way so as not only to meet but to exceed their expectations. The Citizens' Charter initiative is a major step in this direction.

(8) Right to Public Services legislation in India:

Right to Public Services legislation in India comprises statutory laws which guarantee time bound delivery of

services for various public services rendered by t Government to citizen and provides mechanism f punishing the errant public servant who is deficient in providing t service stipulated under the statute.

Features of the right to public Services legislation:

- **Right to Service legislation are meant to reduc corruption among the government officials and t increase transparency and public accountability.**
- Madhya Pradesh became the first state in India to enact Righ to Service Act on 18 August 2010 and Bihar was the second to enact this bill on 25 July 2011.
- Several other states like Bihar, Delhi, Punjab, Rajasthan, Himachal Pradesh, Kerala, Uttarakhand, Haryana, Uttar Pradesh, Odisha and Jharkhand have introduced similar legislation for effectuating the right to service to the citizen.
- The common framework of the legislations in various states includes, granting of "Right to Public Services", which are to be provided to the public by the designated official within the stipulated time frame. The public services which are to be granted as a right under the legislations are generally notified separately through Gazette notification.
- **Some of the common public services which are to be provided within the fixed time frame as a right under the Acts, includes issuing caste, birth, marriage and domicile certificates, electric connections, voter's card, ration cards, copies of land records, etc.**

- On failure to provide the service by the designated officer within the given time or rejected to provide the service, the distressed person can approach the First Appellate Authority.
- The First Appellate Authority, after making a hearing, can accept or reject the appeal by making a written order stating the reasons for the order and intimate the same to the applicant, and can order the public servant to provide the service to the applicant.
- An appeal can be made from the order of the First Appellate Authority to the Second Appellate Authority, who can either accept or reject the application, by making a written order stating the reasons for the order and intimate the same to the applicant, and can order the public servant to provide the service to the applicant or can impose penalty on the designated officer for deficiency of service without any reasonable cause, which can range from Rs. 500 to Rs. 5000 or may recommend disciplinary proceedings.
- The applicant may be compensated out of the penalty imposed on the officer. The appellate authorities has been granted certain powers of a Civil Court while trying a suit under Code of Civil Procedure, 1908, like production of documents and issuance of summon to the Designated officers and appellants.

Implementing States:

State	Act title	Status
Punjab	Right to Public Service Act, 2011	Notified

State	Act title	Stat
Uttarakhand	The Uttarakhand Right to Service Act, 2011	Notifie
Madhya Pradesh	Madhya Pradesh Lok Sewaon Ke Pradan Ki Guarantee Adhiniyam, 2010	Enacte
Bihar	Bihar Lok Sewaon ka Adhikar Adhiniyam, 2011	Enacte
Delhi	Delhi (Right of Citizen to Time Bound Delivery of Services) Act, 2011	Notified
Jharkhand	Right to Service Act, 2011	Notified
Himachal Pradesh	Himachal Pradesh Public Services Guarantee Act, 2011	Notified
Rajasthan	Rajasthan Public Service Guarantee Act, 2011	Notified
Uttar Pradesh	Janhit Guarantee Act, 2011	Enacted
Kerala	The Kerala State Right to Service Act, 2012	Enacted
Karnataka	The Karnataka (Right Of Citizens to Time Bound Delivery Of Services) Bill, 2011	Notified
Chhattisgarh	Chhattisgarh Lok Seva Guarantee Bill, 2011	Notified
Jammu and Kashmir	The Jammu and Kashmir Public Services Guarantee Act, 2011	Notified
Odisha	Odisha Right to Public Services Act, 2012	Notified
Assam	Assam Right to Public Services Act, 2012	Notified

State	Act title	Status
Central Government	Citizen's Charter and Grievance Redressal Bill 2011	Proposed
Gujarat	Gujarat (Right of Citizens to Public Services) Bill, 2013	Enacted
West Bengal	West Bengal Right to Public Services Bill, 2013	Notified
Goa	The Goa (Right to Time-Bound Delivery of Public Services) Act, 2013	Notified
Haryana	The Haryana Right to Service Act, 2014	Notified
Maharashtra	Maharashtra Right to Public Services Ordinance, 2015	Notified

Questions

(1) Explain importance and historical evolution of consumer rights.
(2) Explain different types of consumer rights.
(3) Explain the early developments in USA regarding consumer rights.
(4) Explain various types of violations of consumer rights.
(5) What are consumer responsibilities?
(6) Explain in detail various features of Consumer Protection Act, 1986. ***(April 19)***
(7) What are the reliefs available to the consumers?
(8) Explain consumer Movements.
(9) Explain the significance/benefits of Right to Information for common people.
(10) Discuss the evolution of RTI in India.
(11) What are the provisions of RTI Act, 2005?
(12) Discuss the features of RTI Act, 2005. ***(April 19)***
(13) Write success stories under the RTI Act.

(14) Explain meaning and give definition of PIL.

(15) What is the scope of PIL?

(16) Describe any significant PIL cases in India.

(17) Describe the objectives of citizen's Charter.

(18) Describe the features of Public Service legislation in India.

(19) Trace the origin of RTI Act, 2005 and critically evaluate its provisions. ***(April 18)***

(20) Explain the rationale and origin of Citizen's Charter in India. ***(April 18)***

(21) Discuss important provisions of Right to Information Act, 2005. ***(Oct. 18)***

(22) Discuss three successful cases of PIL. ***(Oct. 18)***

(23) Explain/Describe in brief the following:

(1) Consumerism. ***(April 18)***

(2) Green Consumerism.

(3) PIL. ***(April 18)***

(4) Consumer courts. ***(Oct. 18)***

(5) Consumer protection. ***(Oct. 18)***

(6) Locus standi. ***(April 19)***

(7) Product Liability. ***(April 19)***

MODULE - II

Chapter 2

Ecology

*(A) **Understanding approaches to ecology:** Anthropocentrism, Biocentrism and Eco centrism, Ecofeminism and Deep Ecology.*

*(B) **Environmental Principles-1:** The sustainability principle; the polluter pays principle; the precautionary principle.*

*(C) **Environmental Principles-2:** The equity principle; human rights principles; the participation principle.*

The word ecology was coined by the German zoologist Ernst Haeckel, who applied the term oekologie to the "relation of the animal both to its organic as well as its inorganic environment." The word comes from the Greek oikos, meaning "household," "home," or "place to live." Thus, ecology deals with the organism and its environment. The concept of environment includes both other organisms and physical surroundings. It involves relationships between individuals within a population and between individuals of different populations. These interactions between individuals, between populations, and between organisms and their environment form ecological systems, or ecosystems.

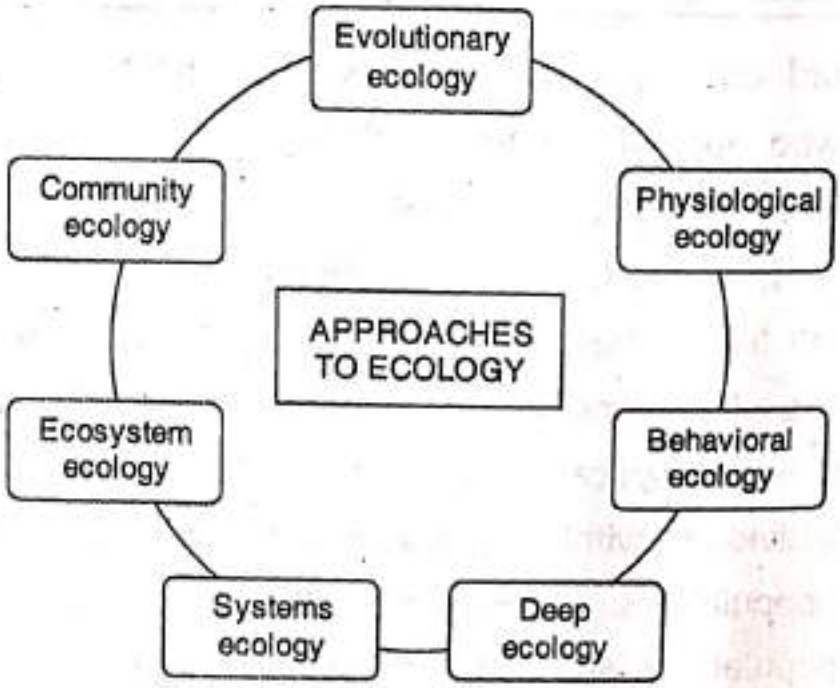
Ecology has been defined variously as "the study of the interrelationships of organisms with their environment and each

other," as "the economy of nature," and as "the biology of ecosystems."

Ecology is necessarily the union of many areas of study because its definition is so all-encompassing. There are many kinds of relationships between organisms and their environment. By organisms one might mean single individuals, groups of individuals, all the members of one species, the sum of many species, or the total mass of species (biomass) in an ecosystem. And the term environment includes not only physical and chemical features but also the biological environment, which involves yet more organisms.

In practice, ecology is composed of broadly overlapping approaches and further divided by the groups of species to be studied.

(A) APPROACHES TO ECOLOGY:



Evolutionary ecology:

Evolutionary ecology examines the environmental factors that drive species adaptation. Studies of the evolution of species might

seek to answer the question of how populations have changed genetically over several generations but might not necessarily attempt to learn what the underlying mechanisms might be. Evolutionary ecology seeks study of those mechanisms.

Physiological ecology:

Physiological ecology looks at the special mechanisms that the individuals of a species use to function and at the limits on species imposed by the environment. There is often an emphasis on extreme conditions, such as very cold or very hot environments or aquatic environments with unusually high salt concentrations. Physiological ecology asks how organisms survive in their environments.

Behavioural ecology:

Behavioural ecology examines the ecological factors that drive behavioural adaptations.

Population ecology:

Population ecology is study of the processes that affect the distribution and abundance of animal and plant populations. A population is a subset of individuals of one species that occupies a particular geographic area and, in sexually reproducing species, interbreeds. The geographic boundaries of a population are easy to establish for some species but more difficult for others.

Community ecology:

Community ecology, or synecology, considers the ecology of communities, the set of species found in a particular place. Because the complete set of species for a particular place is usually not known, community ecology often focuses on subsets of organisms, asking

seek to answer the question of how populations have changed genetically over several generations but might not necessarily attempt to learn what the underlying mechanisms might be. Evolutionary ecology seeks study of those mechanisms.

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questions, for example, about plant communities or insec communities.

Ecosystem ecology:

Ecological factors also cause the diversity of species to vary ove smaller scales. Ecosystem ecology examines large-scale ecological issues, ones that often are framed in terms not of species but rather of measures such as biomass, energy flow, and nutrient cycling.

Systems ecology:

Systems ecology is a branch of ecosystem ecology (the study of energy budgets, biogeochemical cycles, and feeding and behavioural aspects of ecological communities) that attempts to clarify the structure and function of ecosystems by means of applied mathematics, mathematical models, and computer programs. It concentrates on input and output analysis and has stimulated the development of applied ecology: the application of ecological principles to the management of natural resources, agricultural production, and problems of environmental pollution.

Deep ecology:

The term 'Deep Ecology' was first introduced by the Norwegian activist and philosopher Arne Naess in the early 1970s, when stressing the need to move beyond superficial responses to the social and ecological problems we face.

He proposed that we ask 'deeper questions', looking at the 'why and how' of the way we live and seeing how this fits with our deeper beliefs, needs and values. Asking questions like "How can I live in a way that is good for me, other people and our planet?" may lead us to make deep changes in the way we live.

Deep Ecology is a holistic approach to facing world problems that brings together thinking, feeling, spirituality and action. It involves moving beyond the individualism of Western culture towards also seeing ourselves as part of the earth. This leads to a deeper connection with life, where Ecology is not just seen as something 'out there', but something we are part of and have a role to play in.

Two Approaches to Ecology

(1) **Scientific Ecology:** The study of the inter-relationships between species and their environment.

In this approach, the relationship is of a detached observer separate from the object of study. The focus is on measurable data 'out there', collected by experts who know their 'facts and figures'.

(2) **Deep Ecology:** Experiencing ourselves as part of the living earth and finding our role in protecting the planet.

In this approach, the relationship is more of an involved participant, who feels connected with and part of the world around them. This is for everybody, not just experts, each being moved by our values, experiences and feelings to do our bit for the world around us.

The Four Directions of Deep Ecology:

(1) Ideas

(2) Feelings

(3) Spirituality

(4) Action

(1) Ideas:

The central idea of Deep Ecology is that we are part of the earth, rather than apart and separate from it.

This idea is in contrast to the dominant individualism of our culture, where seeing ourselves as separate from our world makes it easier not to be bothered by what's happening in it.

This century, two key ideas have emerged out of scientific thinking that support the view of ourselves as part of the earth. The first idea comes from Systems Theory and the second idea is called Gaia Theory.

Systems Theory sees our world in terms of 'systems', where each system is a 'whole' that is more than the sum of its parts, but also itself a 'part' of larger systems. For example, a cell is more than just a pile of molecules and itself is a part of larger systems e.g. an organ.

Gaia Theory takes this idea further and applies it to the whole planet. All of life on earth can be seen as whole that is more than the sum of its parts, this whole being like a huge super-organism that we call 'Gaia' (after the name for the ancient Greek goddess of the earth). Living systems have a tendency to keep themselves in balance

but also to adapt and evolve over time. Scientists have found that the earth also has these tendencies, with feedback mechanisms to 'keep in balance' the temperature and oxygen levels of the atmosphere, just as our bodies maintain the temperature and oxygen levels in our arteries.

Gaia Theory is simply stating that the earth is alive and that we are part of it.

(2) Feelings:

Facing the scale of social and ecological crisis in our world can leave us feeling numbed, overwhelmed and powerless. Yet there is often little place for such feelings in conventional politics or in our society at large. The dominant response is to deny or distract ourselves from any uncomfortable feelings about the state of the world, and to carry on with 'business as usual'.

(3) Spirituality:

Spirituality is to do with our inner sense of connection with something larger than ourselves and with our relationship with what we see as sacred.

This can give our lives a sense of meaning and purpose beyond material success and those special moments where we feel that connection more deeply can provide an important source of strength in difficult times.

If we see ourselves as part of the 'Tree of Life' - the interconnected web of beings we call Gaia, then a Deep Ecological approach to spirituality might emphasise our relationship with this larger whole. We may look at life itself as being sacred, and see the possibility of the larger force of life acting through us in our work for

earth recovery. This 'life-centred spirituality' can be an importa source of inspiration to face and respond to the problems of ou world.

(4) Action:

When we integrate our beliefs, ideas and values into ou behaviour, we bring them alive and give them the power to influence our world. If we see ourselves as separate from the world, it is easy to dismiss our actions as irrelevant or unlikely to make any difference. Yet from the Deep Ecology perspective, we are part of the world and every choice we make will have ripples that extend beyond us. What may seem tiny and insignificant by itself always adds to a larger context, so that every time we act for life, we put our weight behind the shift towards a life-sustaining culture.

Deep Ecology can also be seen as part of a much wider process of questioning of basic assumptions in our society that is leading to a new way of looking at science, politics, healthcare, education, spirituality and many other areas. Because this change in the way we see things is so wide ranging, it has been called a new 'worldview'. It tends to emphasise the relationships between different areas, bringing together personal and social change, science and spirituality, economics and ecology. Deep Ecology applies this new worldview to our relationship with the earth.

In doing this, it challenges deep-seated assumptions about the way we see ourselves, moving from just seeing ourselves as 'individuals' towards also seeing ourselves as part of the earth. This can increase both our sense of belonging in life and our tendency to act for life.

Environmental Thought:

Environmental thought and the various branches of the environmental movement are often classified into two intellectual camps: those that are considered anthropocentric, or "human-centred," in orientation and those considered biocentric, or "life-centred." This division has been described in other terminology as "shallow" ecology versus "deep" ecology and as "technocentrism" versus "ecocentrism."

Anthropocentrism:

It is a philosophical viewpoint arguing that human beings are the central or most significant entities in the world. This is a basic belief embedded in many Western religions and philosophies. Anthropocentrism regards humans as separate from and superior to nature and holds that human life has intrinsic value while other entities (including animals, plants, mineral resources, and so on) are resources that may justifiably be exploited for the benefit of humankind.

Anthropocentric approaches focus mainly on the negative effects that environmental degradation has on human beings and their interests, including their interests in health, recreation, and quality of life. It is often characterized by a mechanistic approach to nonhuman nature in which individual creatures and species have only an instrumental value for humans. The defining feature of anthropocentrism is that it considers the moral obligations humans have to the environment to derive from obligations that humans have to each other and, less crucially, to future generations of humans rather than from any obligation to other living things or to the

environment as a whole. Human obligations to the environment a thus indirect.

Critics of anthropocentrism have charged that it amounts to form of human "chauvinism." They argue that anthropocentr approaches presuppose the historically Western view of nature a merely a resource to be managed or exploited for human purposes a view that they claim is responsible for centuries of environmenta destruction.

Biocentrism:

Biocentrism is an ethical perspective holding that all life deserves equal moral consideration or has equal moral standing. Although elements of biocentrism can be found in several religious traditions, it was not until the late decades of the 20th century that philosophical ethics in the Western tradition addressed the topic in a systematic manner. In contrast to anthropocentrism, biocentrism claims that nature has an intrinsic moral worth that does not depend on its usefulness to human beings, and it is this intrinsic worth that gives rise directly to obligations to the environment. Humans are therefore morally bound to protect the environment, as well as individual creatures and species, for their own sake. In this sense, biocentrics view human beings and other elements of the natural environment, both living and often nonliving, as members of a single moral and ecological community.

Biocentric ethics argues that the only non-arbitrary ground for assigning moral standing is life itself and thus extends the boundary of moral standing about as far as it can go. All living beings, simply by virtue of being alive, have moral standing and deserve moral consideration.

Biocentrists observe that all species have inherent value, and that humans are not "superior" to other species in a moral or ethical sense.

The four main pillars of a biocentric outlook are:

(1) Humans and all other species are members of Earth's community.

(2) All species are part of a system of interdependence.

(3) All living organisms pursue their own "good" in their own ways.

(4) Human beings are not inherently superior to other living things

Roots of biocentric ethics can be found in a number of traditions and historical figures. The basic principle is to avoid killing or harming any living thing.

Albert Schweitzer was another early 20th-century thinker who argued that life itself is the decisive factor in determining moral value. Working in the most remote areas of Africa, Schweitzer experienced a diversity, complexity, and used the phrase "reverence for life" to convey what he took to be the most appropriate attitude toward all living beings.

As a normative theory, biocentrism has practical implications for human behaviour. The good of all living beings creates responsibilities on the part of human beings, summarized in the four basic duties of biocentric ethics: non-maleficence, noninterference, fidelity, and restitutive justice. The duty of non-maleficence requires that no harm be done to living beings, although it does not commit human beings to the positive duties of preventing harm from

happening or of aiding in attaining the good. The duty of noninterference requires not interfering with an organism's pursuit of its own goals. The duty of fidelity requires not manipulating, deceiving, or otherwise using living beings as mere means to human ends. The duty of restitutive justice requires that humans make restitution to living beings when they have been harmed by human activity.

Numerous challenges suggest that biocentrism is too demanding an ethics to be practical.

Ecocentrism:

Changing our worldview to ecocentrism however offers hope for solving the environmental crisis. Ecocentrism finds inherent (intrinsic) value in all of nature. It takes a much wider view of the world than does. Ecocentrism goes beyond biocentrism by including environmental systems as wholes, and their abiotic aspects.

The universal belief-system is Ecocentrism and is defined as a value-shift from Homo sapiens to planet earth. A scientific rationale backs the value-shift. All organisms are evolved from Earth, sustained by Earth. Thus Earth, not organism, is the metaphor for Life. Earth not humanity is the Life-centre, the creativity-centre. Earth is the whole of which we are subservient parts. Such a fundamental philosophy gives ecological awareness and sensitivity an enfolding, material focus.

Ecocentrism, through its recognition of humanity's duties towards nature, is central to solving our unprecedented environmental crisis. It expands the moral community (and ethics) from being just about ourselves. It means we are not concerned only with humanity; we

extend respect and care to all life, and indeed to terrestrial and aquatic ecosystems themselves.

It is based on the concept that all life is interdependent and that both humans and nonhumans are absolutely dependent on the ecosystem processes that nature provides.

Ecofeminism:

In 1974, the term "ecofeminism" was conceived by d'Eaubonne as a connection of the ecology and women. Ecofeminism is a joining of environmental, feminist; and women's spirituality concerns. As the environmental movement along with environmental crises raised the consciousness of women to the decay of the earth, they began to see a parallel between the devaluation earth and the devaluation of women. Women began to see the link as not a false construction of weakness, but as a strong unifying force that clarified the violation of women and the earth as part of the same drama of male control. Eco feminists claim to be part of a distinct social movement.

The "connection between the demise of the Goddess, the rise of patriarchy, and the rape of the environment" provides the basis for today's vision. Science and technology as tools of men and the dominator society are villainous agents in the exploitation of the Goddess Earth. Those who share this vision personify patriarchy as the embodiment of human science and technology which is inherently progressive, which systematically denigrates ancestral cultures, and which asserts that human beings are entitled to dominion over nature. Such fantasy types serve to arouse strong abhorrence of science and technology.

In fact, the rush to development has put more and more peoples and animals under its control and pushed the ever giving earth to the

point of crisis. There is some recognition of the crisis for people i developing nations, but overall concern is for the animals of th world. All life is connected. But more importantly is that all life i sacred. The destruction of any living being is a disaster. Ecofeminism calls for an endarkment a bonding with the Earth and the invisible that will re-establish our sense of interconnectedness with all things, phenomenal and spiritual, that make up the totality of life in our cosmos. Women must recognize the Earth as their mother and join in a communion with her. The goal is to develop a healthy relationship with nature built around the needs of all peoples.

(B) ENVIRONMENTAL PRINCIPLES-2:

Environmental vision:

By the 1960s and 1970s, as scientific knowledge of the causes and consequences of environmental degradation was becoming more extensive and sophisticated, there was increasing concern among some scientists, intellectuals, and activists about the Earth's ability to absorb the detritus of human economic activity and, indeed, to sustain human life. This concern contributed to the growth of grassroots environmental activism in a number of countries, the establishment of new environmental nongovernmental organizations, and the formation of environmental ("green") political parties in a number of Western democracies. As political leaders gradually came to appreciate the seriousness of environmental problems, governments entered into negotiations in the early 1970s that led to the adoption of a growing number of international environmental agreements.

The division between anthropocentric and biocentric approaches played a central role in the development of environmental thought in

the late 20th century. Whereas some earlier schools, such as apocalyptic (survivalist) environmentalism and emancipatory environmentalism as well as its offshoot, human-welfare ecology were animated primarily by a concern for human well-being, later movements, including social ecology, deep ecology, the animal-rights and animal-liberation movements, and ecofeminism, were centrally concerned with the moral worth of nonhuman nature.

The prominent value in this vision is living in balance or harmony with nature. Instead of exploiting the ecosystem of the earth for our needs, we need to change our lives to live within the system. This vision is a central point between the two previous ones, but it is distinct from both, in that it calls for personal action directly impacting the quality of life as well as political concern. The coming of development broke that link between environment and many of the earth's resources were exploited and wasted. The exploitation continues into the present, especially in our throw-away society. The focus of this vision is the future. Once it is all used up, there will nothing left for future generations. The action is living on the basis of the philosophy. It is truly adapting to the needs of nature.

Apocalyptic environmentalism:

The vision of the environmental movement of the 1960s and early 1970s was generally pessimistic, reflecting a pervasive sense of "civilization malaise" and a conviction that the Earth's long-term prospects were bleak. Works such as Rachel Carson's *Silent Spring* (1962), Garrett Hardin's "The Tragedy of the Commons" (1968), Paul Ehrlich's *The Population Bomb* (1968), Donella H. Meadows' *The Limits to Growth* (1972), and Edward Goldsmith's *Blueprint for Survival* (1972) suggested that the planetary ecosystem was reaching

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the limits of what it could sustain. This so-called apocalyptic, survivalist, literature encouraged reluctant calls from some environmentalists for increasing the powers of centralized governments over human activities deemed environmentally harmful, a viewpoint expressed most vividly in Robert Heilbroner's *An Inquiry into the Human Prospect* (1974), which argued that human survival ultimately required the sacrifice of human freedom. Counterarguments, such as those presented in Julian Simon and Herman Kahn's *The Resourceful Earth* (1984), emphasized humanity's ability to find or to invent substitutes for resources that were scarce and in danger of being exhausted.

Emancipatory environmentalism:

In contrast to apocalyptic environmentalism, so-called "emancipatory" environmentalism took a more positive and practical approach, one aspect of which was the effort to promote an ecological consciousness and an ethic of "stewardship" of the environment. One form of emancipatory environmentalism, human-welfare ecology which aims to enhance human life by creating a safe and clean environment was part of a broader concern with distributive justice and reflected the tendency, later characterized as "post materialist," of citizens in advanced industrial societies to place more importance on "quality-of-life" issues than on traditional economic concerns. Emancipatory environmentalism also was distinguished for some of its advocates by an emphasis on developing small-scale systems of economic production that would be more closely integrated with the natural processes of surrounding ecosystems. The emancipatory approach was evoked through the 1990s in the popular slogan, "think globally, act locally." Its small-

ale, decentralized planning and production has been criticized, owever, as unrealistic in highly urbanized and industrialized cieties.

nvironmental ethics:

Environmental ethics is the part of environmental philosophy hich considers extending the traditional boundaries of ethics from olely including humans to including the non-human world. It exerts fluence on a large range of disciplines including Environmental aw, Ecotheology, Environmental sociology, Ecological economics, cology and Environmental Geography.

Environmental ethics is a branch of ethics that studies the relation f human beings and the environment and how ethics play a role in is. Environmental ethics believe that humans are a part of society s well as other living creatures, which includes plants and animals. hese items are a very important part of the world and are onsidered to be a functional part of human life. Thus, it is essential hat every human being respect and honour this and use morals and thics when dealing with these creatures.

It is defined as "Environmental ethics is a branch of applied philosophy that studies the conceptual foundations of environmental values as well as more concrete issues surrounding societal attitudes, actions, and policies to protect and sustain biodiversity and ecological systems."

Environmental ethics is the philosophical discipline that considers the moral and ethical relationship of human beings to the environment. While ethical issues concerning the environment have been debated for centuries, environmental ethics did not emerge as a philosophical discipline until the 1970s. Its emergence was the result

of increased awareness of how the rapidly growing world populatio was impacting the environment as well as the environmenta consequences that came with the growing use of pesticides technology, and industry.

Environmental ethics helps define man's moral and ethica obligations toward the environment. But human values become a factor when looking at environmental ethics. Human values are the things that are important to individuals that they then use to evaluate actions or events. In other words, humans assign value to certain things and then use this assigned value to make decisions about whether something is right or wrong. Human values are unique to each individual because not everyone places the same importance on each element of life. For example, a person living in poverty in an undeveloped country may find it morally acceptable to cut down the forest to make room for a farm where he can grow food for his family. However, a person in a developed country may find this action morally unacceptable because the destruction of forests increases carbon dioxide emissions into the atmosphere, which can negatively impact the environment.

Environmental ethics, along with human values, make for challenging philosophical debates about man's interaction with the environment. Water and air pollution, the depletion of natural resources, loss of biodiversity, destruction of ecosystems, and global climate change are all part of the environmental ethics debate. And we see that within the discipline of environmental ethics there are tough ethical decisions humans must consider.

Sustainable Prosperity is a relatively new term for the concept of equitable, long-term economic activity which meets the needs of the

population fairly, and without the unviable use of natural resources. The meeting's specific remit was to consider the issues and questions, mainly in the social sciences and the humanities, which this approach raises.

There was almost universal agreement at the meeting that sustainability in the environmental sense cannot be attained without firm social and economic foundations built upon equity and justice. At the same time, sustainability involves a wide range of resources questions, including climate change, food, water, energy, population, and environmental conservation. bottom line for sustainable prosperity.

Sustainable prosperity is "a result of sustainable development that enables all human beings to live with their basic needs met, with their dignity acknowledged, and with abundant opportunity to pursue lives of satisfaction and happiness, all without risk of denying others in the present and the future the ability to do the same".. This definition puts human beings at the centre of sustainability. The licence to produce and distribute goods and services at a profit is based on human requirements to consume and experience goods and services for survival and identity.

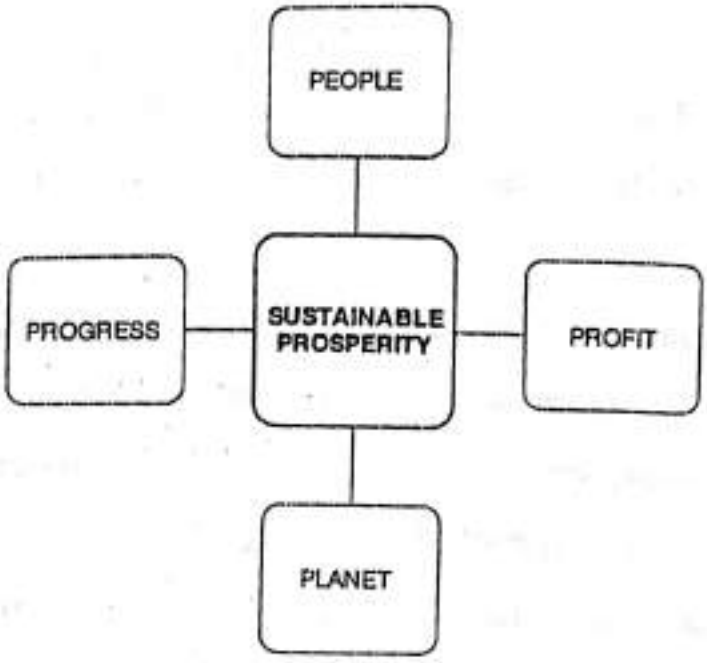
Sustainable Prosperity – 4Ps:

- **People – Quality of Life:**

Quality of life for people, e.g., health, vigour, wellbeing, flourishing.

- **Profit – Competitive Productivity:**

Competitive productivity in producing and distributing goods and services for consumption and profit with scarce resources.



- **Planet – Sustainable Ecosystems:**

Individual, community, and ecosystems survival across lifespans and generations.

- **Progress – Adaptive Innovation:**

Adaptive innovation e.g., adaptive learning and change; trial and error risk taking and discovery in all aspects of people, profit, and planet, and innovations in being innovative.

An interrelated quadruple bottom line of 4P's people, profit, planet, and progress provides the basis for a more comprehensive framework for developing measures of sustainable prosperity.

Environmental legislation:

Although much environmental legislation is drafted in response to catastrophes, preventing environmental harm is cheaper, easier, and less environmentally dangerous than reacting to environmental harm that already has taken place. The prevention principle is the fundamental notion behind laws regulating the generation, transportation, treatment, storage, and disposal of hazardous waste and laws regulating the use of pesticides. The principle was the

foundation of the Basel Convention on the Control of Trans boundary Movements of Hazardous Wastes and their Disposal (1989), which sought to minimize the production of hazardous waste and to combat illegal dumping. The prevention principle also was an important element of the EC's Third Environmental Action Programme, which was adopted in 1983.

The "Polluter Pays" Principle (PPP):

Since the early 1970s the "polluter pays" principle has been a dominant concept in environmental law. Many economists claim that much environmental harm is caused by producers who "externalize" the costs of their activities. For example, factories that emit unfiltered exhaust into the atmosphere or discharge untreated chemicals into a river pay little to dispose of their waste. Instead, the cost of waste disposal in the form of pollution is borne by the entire community. In environmental law, the polluter pays principle is enacted to make the party responsible for producing pollution responsible for paying for the damage done to the natural environment. It is regarded as a regional custom because of the strong support it has received in most Organisation for Economic Co-operation and Development (OECD) and European Union countries. It is a fundamental principle in US environmental law. Accordingly, the purpose of many environmental regulations is to force polluters to bear the real costs of their pollution, though such costs often are difficult to calculate precisely. In theory, such measures encourage producers of pollution to make cleaner products or to use cleaner technologies. The "polluter pays" principle also guides the policies of the European Union and other governments throughout the world. The polluter pays principle underpins environmental policy such as an ecotax, which, if enacted

by government, deters and essentially reduces greenhouse gas emissions. This principle is based on the fact that as much as pollution is unavoidable, the person or industry that is responsible for the pollution must pay some money for the rehabilitation of the polluted environment. The first major reference to the PPP appeared 1972 in the OECD Guiding Principles Concerning International Economic Aspects of Environmental Policies (henceforth called OECD Guiding Principles). The PPP as a guiding principle across countries became necessary because some countries faced complaints by national firms about rising costs and a loss of international competitiveness following a national implementation of the PPP within their borders. The OECD Guiding Principles define the PPP as an instrument for "... allocating costs of pollution prevention and control measures"

The polluter should bear these costs in order to achieve and maintain an "... acceptable state of environment" which is determined by the public authorities. The OECD Guiding Principles also state that the PPP should "... not be accompanied by subsidies that would create significant distortions in international trade and investment." This weak or standard definition of the PPP neither requires polluters to bear the costs of accidental damages, nor do they have to pay for pollution. The range of costs to be borne by the polluter has expanded over time.

Flaws in the PPP:

It is true that polluter pays principle has a positive effect to reduce pollution. The principle seems quite relevant for pollution that occurs during industrial activity, although it remains inefficient in the case of

storical pollution. Most developing countries, however, have not yet ıbscribed to the PPP as a main environmental policy guideline.

- Firstly, ambiguity still exists in determining 'who is a polluter'. In legal terminology, a 'polluter' is someone who directly or indirectly damages the environment or who creates conditions relating to such damage. Clearly, this definition is so broad as to be unsupportive in many situations.
- Second, a large number of poor households, informal sector firms, and subsistence farmers cannot bear any additional charges for energy or for waste disposal.
- Third, small and medium-size firms from the formal sector, which mainly serve the home market, find it difficult to pass on higher costs to the domestic end-users
- Fourth, exporters in developing countries usually cannot shift the burden of cost internalisation to foreign customers due to elastic demand.
- Lastly, many environmental problems in developing countries are caused by an overexploitation of common pool resources.

All of these problems make it difficult to implement the PPP as a ıuideline for environmental policy in developing countries.

The precautionary principle:

The environmental law regularly operates in areas complicated by ıigh levels of scientific uncertainty. In the case of many activities that :ntail some change to the environment, it is impossible to determine ›recisely what effects the activity will have on the quality of the :nvironment or on human health. It is generally impossible to know,

for example, whether a certain level of air pollution will result in a increase in mortality from respiratory disease, whether a certain leve of water pollution will reduce a healthy fish population, or whether oil development in an environmentally sensitive area will significantly disturb the native wildlife. The precautionary principle requires that, if there is a strong suspicion that a certain activity may have environmentally harmful consequences, it is better to control that activity now rather than to wait for incontrovertible scientific evidence. This principle is expressed in the Rio Declaration, which stipulates that, where there are "threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

(C) ENVIRONMENTAL PRINCIPLES-2:

Principles of equity:

The ethical principle of equity, is central to the concept of sustainable development

The central ethical principle behind sustainable development is equity and particularly intergenerational equity. The Brundtland Commission, which played such a prominent part in popularising the notion of sustainable development defined it in equity terms as: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Equity is about fairness. Equity derives from a concept of social justice. It represents a belief that there are some things which people should have, that there are basic needs that should be fulfilled, that burdens and rewards should not be spread too divergently across the

community, and that policy should be directed with impartiality, fairness and justice towards these ends.

Environmental inequities already exist in all societies. Poorer people tend to suffer the burden of environmental problems more than others do. This is because more affluent people have more choices about where they live: they can afford to pay more to live in areas that have not had their environment degraded. Also, more affluent people are better able to fight the imposition of a polluting facility in their neighbourhood because they have better access to financial resources, education, skills and the decision-making structures. Similarly workers in certain industries are often exposed to higher health risks than the rest of the community–as, for example, are workers in mining or mineral processing and the chemical industry. Often, the work-forces in very hazardous industries are made up of large numbers of migrants or ethnic minorities.

Equity means that there should be a minimum level of income and environmental quality below which nobody falls. Within a community it usually also means that everyone should have equal access to community resources and opportunities, and that no individuals or groups of people should be asked to carry a greater environmental burden than the rest of the community as a result of government actions. It is generally agreed that equity implies a need for fairness (not necessarily equality) in the distribution of gains and losses, and the entitlement of everyone to an acceptable quality and standard of living.

Human rights principle:

Human rights protect our most basic needs, and human rights principles, especially non-discrimination, insist that we are not treated

differently in accessing those needs. Since those needs have a natural basis, no-one can take more over a sustainable share of natural resources without threatening others' rights; and since these resources are linked through ecological processes globally, all natural resources can be seen as part of the commons. If one person or group takes more than their fair share of these common goods human rights globally are threatened. Human rights therefore demand that we protect these common resources..."

"Simply put, existing human rights obligations demand immediate action to address the ecological crisis while developing all human rights, whether we have specific international climate change or other ecological treaties or not. Defending, extending and deepening human rights is thus the best environmental policy.

Simply put, existing human rights obligations demand immediate action to address the ecological crisis while developing all human rights, whether we have specific international climate change or other environmental treaties or not.

This idea of fulfilling all rights within ecosystems' regenerative capacity effectively gives us a human rights-based definition of sustainable development – development that secures all human rights for the current generation within an amount of ecological space that does not compromise the human rights of future generations.

Based on this definition, practitioners should consider that all development activities must aim at securing human rights within sustainable amount of ecological space. The ecological dimensions of rights should be emphasized to ensure each and human rights sustainably.

Public participation principle:

Decisions about environmental protection often formally integrate the views of the public. Generally, government decisions to set environmental standards for specific types of pollution, to permit significant environmentally damaging activities, or to preserve significant resources are made only after the impending decision has been formally and publicly announced and the public has been given the opportunity to influence the decision through written comments or hearings. In many countries citizens may challenge in court or before administrative bodies government decisions affecting the environment. These citizen lawsuits have become an important component of environmental decision making at both the national and the international level.

Public participation in environmental decision making has been facilitated by laws that mandate extensive public access to government information on the environment. Similar measures at the international level include the Rio Declaration and the 1998 Århus Convention, which committed the 40 European signatory states to increase the environmental information available to the public and to enhance the public's ability to participate in government decisions that affect the environment. During the 1990s the Internet became a primary vehicle for disseminating environmental information to the public.

Fair share of carbon space:

Climate Change (also known as Global Warming) is the name given to long term changes to temperature on and around the Earth's surface, which causes long term shifts to weather patterns.

Over the 20th century, the atmospheric concentrations of key greenhouse gases increased due to human activities. The stated objective (Article 2) of the United Nations Framework Convention on Climate Change (UNFCCC) is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a low enough level to prevent "dangerous anthropogenic interference with the climate system." Many studies have focused on projections of possible 21st century dangers. However, the principles (Article 3) of the UNFCCC specifically emphasize "threats of serious or irreversible damage," underscoring the importance of the longer term. Future carbon dioxide emissions in the 21st century will hence lead to adverse climate changes on both short and long time scales that would be essentially irreversible. For the same reason, the physical climate changes that are due to anthropogenic carbon dioxide already in the atmosphere today are expected to be largely irreversible. Such climate changes will lead to a range of damaging impacts in different regions and sectors, some of which occur promptly in association with warming, while others build up under sustained warming because of the time lags of the processes involved. Here we illustrate 2 such aspects of the irreversibly altered world that should be expected. These aspects are among reasons for concern but are not comprehensive; other possible climate impacts include Arctic sea ice retreat, increases in heavy rainfall and flooding, permafrost melt, loss of glaciers and snowpack with attendant changes in water supply, increased intensity of hurricanes, etc.

The IPCC, in its 5th Assessment Report, has published a carbon dioxide emission budget, which tells us how much carbon dioxide can the world emit to stay below 2°C global warming. IPCC

estimates that to remain below 2°C the world can emit only about 2,900 billion tonne (giga-tonne or Gt) of carbon dioxide from all sources from the dawn of industrial revolution till 2100. Till 2011, the world has already emitted 1,900 Gt of carbon dioxide. This means that out of the budget of 2,900 Gt, only 1,000 Gt remains to be used between now and 2100. It is also called Carbon budget Or Carbon Space.

KYOTO protocol:

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets.

Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005. Under the Protocol, countries must meet their targets primarily through national measures.

The Kyoto Protocol is seen as an important first step towards a truly global emission reduction regime that will stabilize GHG emissions, and can provide the architecture for the future international agreement on climate change.

DOHA AMENDMENT

In Doha, Qatar, on 8 December 2012, the Doha Amendment to the Kyoto Protocol was adopted. The amendment includes amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

During the first commitment period, 37 industrialized countries and the European Community committed to reduce Green House Gas emissions to an average of five percent against 1990 levels. During the second commitment period, Parties committed to reduce Green House Gas emissions by at least 18 percent below 1990 levels.

Recent Developments:

Developing countries, including India, have asked rich nations to ratify the second commitment period of the Kyoto Protocol (2013-2020), which will guide their climate action for the next three years, by June 2018. The call on ratification deadline was made after the European Union and developed countries, including the United States (US), Canada, Australia and Japan, opposed the demand of developing countries to put pre-2020 commitments of rich nations in the agenda of the ongoing climate conference (COP23).

The move is seen as an attempt by developed countries not to discuss something that they had not fulfilled under their previous commitments. The US, which generally remained quiet during the negotiations, intervened on the issue in a separate meeting to take a call on the agenda of the Conference and opposed the demand of the developing countries. Though the US is not part of Kyoto

Protocol, its intervention is interpreted as a move to avoid any climate action on its part till 2020. Ratification of the protocol is a valuable part of the momentum for global climate action for the years leading up to 2020. So far, only 84 of the total 191 signatories have ratified it. India, too, had raised the demand of including pre-2020 actions of rich nations in the agenda of the Conference. The pre-2020 actions refer to existing obligations under the Kyoto Protocol where only rich nations are obliged to take mitigation (emission cut) actions. Though the developed countries had in 2012 agreed to undertake their aggregate emission cuts by at least 18% below the 1990 levels, most of them haven't even ratified the decision.

Sustainable Development:

Sustainable development is an approach to economic planning that attempts to foster economic growth while preserving the quality of the environment for future generations. Despite its enormous popularity in the last two decades of the 20th century, the concept of sustainable development proved difficult to apply in many cases, primarily because the results of long-term sustainability analyses depend on the particular resources focused upon.

International efforts along with efforts at grass root level are required to achieve sustainable development. Think Globally Act Locally Is The Need Of The Hour.

Questions

(1) What do mean by ecology? Write a note on various approaches of ecology.

(2) Examine Environmental thought and various types associated with it.

(3) Explain the concept of Environmental Ethics and Principles of Sustainability.

(4) What is the role of environmental legislation?

(5) Elaborate in brief the recent developments at the international leve in Sustainable Development.

(6) Discuss the various goals of sustainable development as adopted i the UN Sustainable Development Summit, 2015. ***(April 19)***

(7) Describe the three main principles of sustainability. ***(April 18)***

(8) Explain the viewpoints of bio-centrism and eco-centrism. ***(April 18)***

(9) Critically examine bio-centrism and eco-centrism as an approach t ecology. ***(Oct. 18)***

(10) Comment on the various approaches to understand ecology. ***(Apri 19)***

(11) Discuss the human rights principles of environment. ***(Oct. 18)***

(12) **Explain/Describe in brief the following:**

(a) Anthropocentrism. ***(April 18)***

(b) Biocentrism.

(c) Ecocentrism. ***(April 19)***

(d) Ecofeminism. ***(April 18)***

(e) Deep ecology. ***(Oct. 18)***

(f) Polluter Pays Principle. ***(April 19)***

(g) Millennium Development Goals. ***(Oct. 18)***

MODULE - III

Chapter 3

Science and Technology - II

*A) **Some significant modern technologies, features and applications – Laser echnology:** light amplification by stimulated emission of radiation, use of laser n remote sensing, GIS/GPS mapping, medical use – **Satellite Technology:** arious uses in satellite navigation systems, GPS and imprecise climate and veather analyses– **Information and Communication Technology:** convergence f various technologies like satellite, computer and digital in the information evolution of today's society – **Biotechnology and Genetic Engineering:** applied iology and uses in medicine, pharmaceuticals and agriculture, genetically nodified plant, animal and human life – **Nano Technology:** definition, the tudy, control and application of phenomena and materials at length, scales elow 100 nm, uses in medicine, military intelligence and consumer products – **B) Issues of control, access and misuse of technology** – Conclusion – Questions.*

World has witnessed a lot of technological advancements since he beginning of 20th century. All these advancements have helped o make human lives easier. Human lives are so much dependent on echnology that we can't think of a life without the various gadgets ve have. With the change in the lifestyle of people, there is a rise in lemand for enhancement of existing technology. Science and echnology has made world an easier place for us to live in. Advancements in telecommunication have brought people living in lifferent ends of the world together. Penetration of internet in rural

areas of even third world countries has made communication fast, cheaper and more effective. You don't have to wait for days for the postman to deliver you a letter. Gone are the days when you stopped at every junction and asked for directions. Google earth and other navigation apps enabled by satellite technology assists you in navigating to any place earth. You don't have to remember all the spellings. Your word processing app will correct all your spellings and grammar for you. Social media platforms have made sure your advertisements will be more effective, cheaper and will reach the targeted audience. Long queues at the banks are vanishing. Transactions can be done from anywhere in the world with a few clicks on your smart phone. Patients are now able to report data remotely to their doctor, and they can also keep a closer eye on medical conditions. The invention of apps and wearables help people monitor everything from their blood sugar levels to their pulse rate. You don't have to get out the comfort of your house to purchase household items. You can purchase almost everything online and get it delivered at your door step. And Google has answer to all your questions at your fingertips. The list is lengthy, but the important fact to be remembered is technology is constantly evolving and making your life easier every day.

Technological advancements have touched every walk of life. It has made a negative as well as positive impact on human life. On a positive side, it has made lives simpler, saves time, improves communication and health care whereas on a negative side, it has made us so lazy and dependent, thereby even causing health problems. Here in this unit we are going to discuss some of the major technological advancements that world had witnessed in this century

(A) Some significant modern technologies, features and applications:

Laser Technology:

Lasers are one of the significant inventions of the 20th Century. Laser technology is used in DVD players, medicine, such as eye surgery, space exploration, scientific research and communication.

The word "laser" stands for "Light Amplification by Stimulated Emission of Radiation". A laser is a source of coherent optical electromagnetic radiation (light). Light is amplified by repeatedly passing photons through a medium with specific properties. When the laser light is emitted in the form of a narrow beam it will have certain properties such as consistency (in the waves produced as a result of the same frequency, direction of oscillation and phase), and monochromaticity (electromagnetic radiation of the same wavelength).

Scientists consider laser as a combined quantum- mechanical and thermodynamical processes.

History of Lasers:

Einstein, in 1917 suggested a process called as stimulated emission which could be considered as a basic model of laser technology. He theorized that, besides absorbing and emitting light spontaneously, electrons could be stimulated to emit light of a particular wavelength. But it was put to application only in 1951, when Charles Hard Townes laid down the framework of maser

(microwave amplification by stimulated emission of radiation) an early form of laser. Scientists from various labs across the world simultaneously worked on modifying laser technology and now we have a well advanced laser technology.

A laser is a device that emits a beam of coherent light through an optical amplification process. Based on the medium used, type of lasers may be varied. There are different types of lasers such as solid state lasers (emits infrared light at 1.064 micrometers), gas lasers (helium and helium-neon, HeNe, are the most common gas lasers), fiber lasers, dye lasers, diode lasers and excimer lasers. The basic set of components is same for all these lasers.

Laser Components:

(1) Gain medium capable of sustaining stimulated emission.

(2) Energy source to pump the gain medium.

(3) Total reflector to reflect energy.

(4) Partial reflector.

(5) Laser beam output.

The gain medium and the reflector determine the wavelength of the laser beam and the power of the laser.

Working of a laser:

- A laser consists of a "gain medium" inside an optical cavity, with a means to supply energy to the gain medium.
- The gain medium is a material (gas, liquid, solid, or free electrons) with appropriate optical properties.

- The cavity consists of two mirrors arranged in such a way that the light bounces back and forth, each time passing through the gain medium.
- One of the two mirrors, the "output coupler," is partially transparent. The output laser beam is emitted through this mirror.
- Light of a specific wavelength that passes through the gain medium is amplified; the surrounding mirrors ensure that most of the light makes many passes through the gain medium.
- Part of the light that is between the mirrors (i.e., is in the cavity) passes through the partially transparent mirror and appears as a beam of light.
- The process of supplying the energy required for the amplification is called "pumping," and the energy is typically supplied as an electrical current or as light at a different wavelength.

The main characteristics of Lasers are high quality and accuracy, high speed, flexibility, precision, minimal environmental effects and long life cycle.

Applications of laser:

Laser technology has got various applications. Some of them are:

(1) **Medical applications:** Laser technology is used for therapeutic and surgical treatments.

- One type of lower laser power dose is used in stimulating skin treatments. This therapy is called as low level laser therapy (LLLT).

- Lasers are used to cut, coagulate and vaporize in surge
- Depending upon the absorption properties of the tar tissue various types of lasers are used.
- Laser technology is also used to correct abnormalities vision. One of the advances in laser eye technology is t introduction of the procedure LASIK or Laser in Si Keratomileusis. LASIK is a type of refractive surgery tha uses laser technology to help in reshaping the cornea of th eye. This significantly changes the optical power an subsequently corrects vision impairment.
- Researchers at the Max Planck Institute for the Science o Light developed a flying microlaser. According to researche Richard Zeltner " A fiber inserted into the skin, a microlaser precisely positioned light source with light-activated drugs. The devices to provide a light source for various bioanalysis techniques or for on-chip temperature measurements with high spatial resolution."
- Lasers have got application in dentistry as well. When used for surgical and dental procedures, the laser acts as a cutting instrument or a vaporizer of tissue that it comes in contact with.
- The laser is used for curing a filling; it helps to strengthen the bond between the filling and the tooth.

- Laser is also used in teeth whitening procedures, where it acts as a heat source and enhances the effect of tooth bleaching agents.

(2) Laser remote sensing: Lasers can be used to obtain information on systems from a large distance. This technology is called as laser remote sensing or LRS. The technique is also known to as LIDAR light detection and ranging.

- LIDAR is a remote sensing method that uses light in the form of a pulsed laser to measure distance to the Earth. These light pulses generate precise, three-dimensional information about the shape of the Earth and its surface characteristics.
- LIDAR instrument principally consists of a laser, a scanner, and a specialized GPS receiver.
- Airplanes and helicopters are the most commonly used platforms for acquiring LIDAR data over broad areas. There are two types of LIDAR namely topographic and bathymetric.
- Topographic LIDAR typically uses a near-infrared laser to map the land, while bathymetric LIDAR uses water-penetrating green light to measure seafloor and riverbed elevations.
- Most commonly LRS is used in atmospheric and environmental studies applied from an airplane, minivan or satellite, measuring concentrations of pollutants, mapping cloud formation and monitoring agricultural crops.

- LIDAR systems allow scientists and mapping professionals to inspect both natural and manmade environments with accuracy, precision, and flexibility.

(3) Welding and Cutting: The highly collimated (accurate and parallel) beam of a laser of extremely high energy density can be used for welding and cutting.

For example, the automobile industry makes extensive use of carbon dioxide lasers with powers up to several kilowatts for computer controlled welding on auto assembly lines. The attractions of laser welding are the ability to weld pre-machined precision components with restricted heat input and less distortion.

(4) Surveying: Helium-neon and semiconductor lasers have been widely used in field surveyor's equipment. A fast laser pulse is sent to a corner reflector at the point to be measured and the time of reflection is measured to get the distance.

(5) Garment industry: Laser technology is being largely used in apparel industry for cutting garment patterns, patterning designer neckties, cutting and engraving leather 3D body scanning and denim fading. Reduced cost, flexibility and anti-counterfeiting make laser technology attractive for garment industry.

(6) Laser nuclear fusion: During laser fusion, small pellets of deuterium-tritium isotopes (isotopes of hydrogen) are introduced into a blast chamber where the pellets are compressed to high densities using an intense laser. This technique makes use of a single laser beam that is divided into a number of beams which

are amplified and passed into the chamber. The combination of high density and heat due to compression induces the thermonuclear explosion ignition. Laser nuclear fusion is considered as the energy of tomorrow.

7) **Communication:** Optical communication is any form of telecommunication that makes use of light as the transmission medium. An optical communication system consists of a transmitter, which encodes a message into an optical signal, a channel, which carries the signal to its destination, and a receiver, which reproduces the message from the received optical signal.

(8) **Laser printing:** A laser printer is a popular type of personal computer printer that uses a non-impact, photocopier technology. Laser printers do not require constant refilling of cartridges and are very cost effective.

(9) **Heat treatment:** Lasers are used for selective heat treatments of metal parts, proving useful in metallurgy

(10) **Barcode scanners:** Helium neon lasers are used in super market scanners to scan the universal barcodes to identify the products. Supermarket scanners typically use helium-neon lasers to scan the universal barcodes to identify products. The laser beam bounces off a rotating mirror and scans the code, sending a modulated beam to a light detector and then to a computer which has the product information stored. Semiconductor lasers can also be used for this purpose.

Satellite Technology:

Satellite is an object that orbits a star or a planet. Usually the word "satellite" refers to a machine that is launched into space and moves around Earth or another body in space.

A satellite can be either natural or artificial.

Natural Satellites:

A natural satellite is an astronomical body that orbits a planet. An example for a natural satellite is moon.

Artificial Satellites:

An artificial satellites an artificial object which has been intentionally placed into orbit.

Examples are Aryabhatta, INSAT, IRNSS, Satyabhama, INS-1A (Indian satellites), Sputnik-1 (1st satellite in space launched by Soviet Union), Explorer, TIROS (US).

How do artificial Satellites help us?

We put satellites in space to overcome the various limitations of Earth's geography it helps us step outside our Earth-bound lives.

If someone wants to make a phone call from the North Pole, a signal can be fired into space and back down again, using a communications satellite as a mirror to bounce the signal back to Earth and its destination.

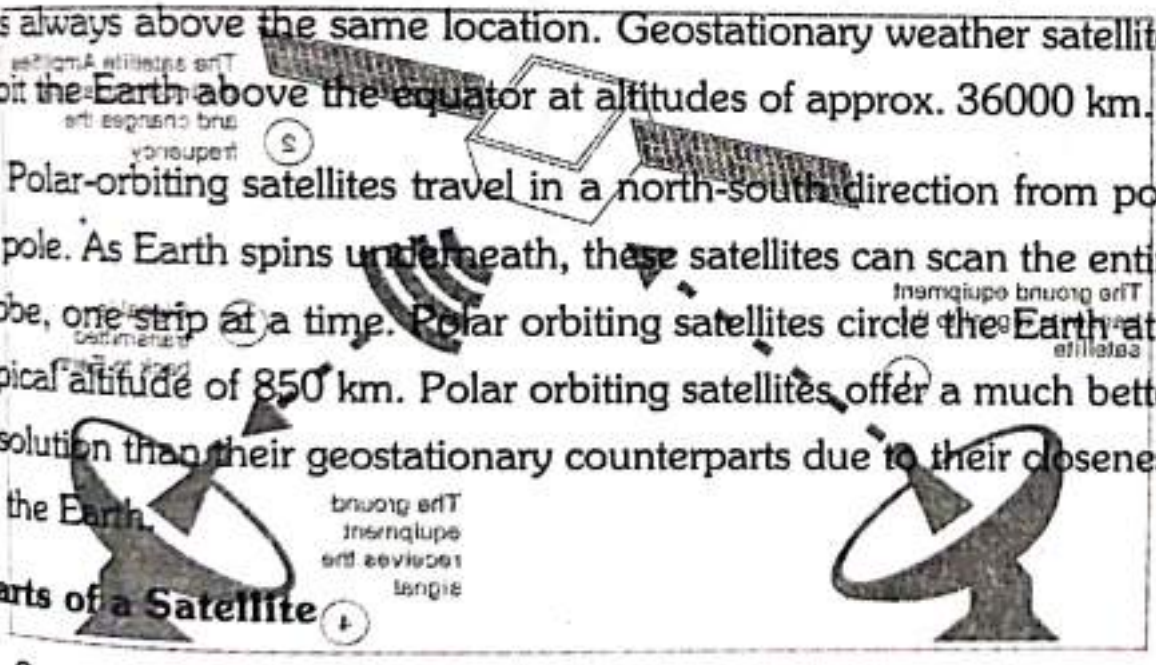
If you want to survey crops or ocean temperatures, you could do it from a plane, but a satellite can capture more data more quickly because it's higher up and further away.

Similarly, if you want to drive somewhere you've never been before you could study maps or ask random strangers for directions, or you could use signals from satellites to guide you instead.

Satellite Orbits:

Most satellites are launched into space on rockets. A satellite orbits Earth when its speed is balanced by the pull of Earth's gravity. Without this balance, the satellite would fly in a straight line off into space or fall back to Earth. Satellites orbit Earth at different heights, different speeds and along different paths. The two most common types of orbit are "geo-stationary" and "polar."

A geostationary satellite travels from west to east over the equator. It moves in the same direction and at the same rate Earth is spinning. From Earth, a geostationary satellite looks like it is standing still since it is always above the same location. Geostationary weather satellites orbit the Earth above the equator at altitudes of approx. 36000 km.



Polar-orbiting satellites travel in a north-south direction from pole to pole. As Earth spins underneath, these satellites can scan the entire globe, one strip at a time. Polar orbiting satellites circle the Earth at a typical altitude of 850 km. Polar orbiting satellites offer a much better resolution than their geostationary counterparts due to their closeness to the Earth.

Parts of a Satellite

Satellites come in many shapes and sizes. But most have at least two parts in common - an antenna and a power source. The antenna sends and receives information, often to and from Earth. The power source can be a solar panel or battery. Solar panels make power by turning sunlight into electricity.

Many satellites carry cameras and scientific sensors. Sometimes these instruments point toward Earth to gather information about its land, air and water. Other times they face toward space to collect data from the solar system and universe.

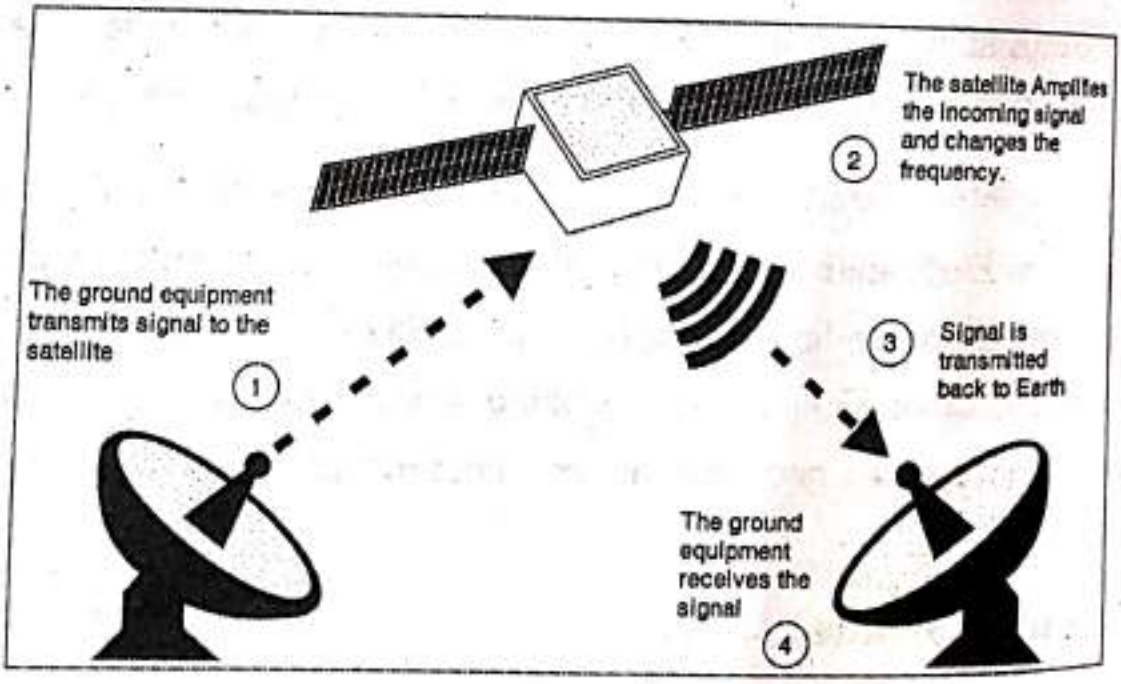
How do satellites communicate with earth?

Satellites communicate by using radio waves to send signals to the antennas on the Earth. The antennas then capture those signals and process the information coming from those signals. Information can include:

(1) scientific data (like the pictures the satellite took),

(2) the health of the satellite, and

(3) where the satellite is currently located in space.



The Growth of Satellite Technology in India:

The 1960's saw the initiation if space research activities in India. Dr. Vikram Sarabhai realised the benefits of having a space program for India.

As a first step, the Department of Atomic Energy formed the NCOSPAR (Indian National Committee for Space Research) under the leadership of Dr. Sarabhai and Dr. Ramanathan in 1962. The Indian Space Research Organisation (ISRO) was later formed on August 15, 1969. The prime goal of ISRO is to develop space technology and its application to various national needs. The Department of Space (DOS) and the Space Commission were set up in 1972 and ISRO was brought under DOS on June 1, 1972.

Indian space program has three distinct elements namely, satellites for communication and remote sensing, the space transportation system and application programmes. ISRO has developed two major operational systems – the Indian National Satellite (INSAT) for telecommunication, television broadcasting, and meteorological services and the Indian Remote Sensing Satellite (IRS) for monitoring and management of natural resources and Disaster Management Support.

Applications of satellites with examples:

(1) **Astronomical satellites:** These satellites are used for the observation of distant stars and other objects in space. Placing an observation point in space removes the unwanted effects of the atmosphere and enables far greater levels of detail to be seen. The most famous astronomical satellite is the Hubble Telescope.

(2) **Communications satellites:** These satellites possibly form the greatest number of satellites that are in orbit. They are used for communicating over large distances. The height of the satellite above the Earth enables the satellites to communicate over vast

distances, and thereby overcoming the curvature of the Earth's surface.

(3) Earth observation satellites: These satellites are used for observing the earth's surface and as a result they are often termed geographical satellites. Using these satellites it is possible to see many features that are not obvious from the earth's surface. They have even been used in mineral search and exploitation.

(4) Navigation satellites: In recent years satellites have been used for accurate navigation. The first system known as GPS (Global Positioning System) was set up by the USA and was primarily intended for use as a highly accurate military system. Since then it has been adopted by a huge number of commercial and private users. Small GPS systems are available at costs that are affordable by the individual and are used for car navigation, and they are even being incorporated into phones in a system known as A-GPS (Assisted GPS) to enable accurate location of the phone in case of emergency.

Further systems are planned for the future. The Russian system known as Glonass, and the European and Chinese system Galileo are planned for the future.

Indian Regional Navigation Satellite System (IRNSS) or NavIC is developed by India because access to foreign government controlled global navigation satellite systems is not guaranteed in hostile situations, as happened to the Indian military in 1999 during Kargil War.

(5) **Reconnaissance satellites:** These satellites are able to see objects on the ground and are accordingly used for military purposes. As such their performance and operation is kept secret and not publicized.

(6) **Weather satellites:** As the name implies these satellites are used to monitor the weather. They have helped considerably in the forecasting of the weather and have helped provide a much better understanding not only of the underlying phenomena, but also in enabling predictions to be made.

Climate and Weather Analyses:

The weather satellite is a type of satellite that is primarily used to monitor the weather and climate of the earth. Satellites can be either Polar-orbiting or Geo-stationary.

These satellites see more than clouds and cloud systems. City lights, fires, effects of pollution, auroras, sand and dust storms, snow cover, ice mapping, boundaries of ocean currents, energy flows, etc. They can detect changes in the Earth's vegetation, sea state, ocean colour, and ice fields.

El Niño and its effects on weather are monitored daily from satellite images. The Antarctic ozone hole is mapped from weather satellite data. Collectively, weather satellites flown by the U.S., Europe, India, China, Russia, and Japan provide nearly continuous observations for a global weather watch.

Observation is typically made via different channels of the electromagnetic spectrum, in particular, the visible and infrared portions.

Visible spectrum:

Visible-light images from weather satellites during local daylight hours are easy to interpret even by the average person; clouds, cloud systems such as fronts and tropical storms, lakes, forests, mountains, snow ice, fires, and pollution such as smoke, smog, dust and haze are readily apparent. Even wind can be determined by cloud patterns, alignments and movement from successive photos.

Infrared spectrum:

The thermal or infrared images recorded by sensors called scanning radiometers enable a trained analyst to determine cloud heights and types, to calculate land and surface water temperatures, and to locate ocean surface features.

Infrared satellite imagery can be used effectively for tropical cyclones.

Infrared pictures depict ocean eddies or vortices and map currents such as the Gulf Stream which are valuable to the shipping industry.

Farmers can know land and water temperatures to protect their crops against frost.

Fishermen can use the data to increase their catch from the sea.

Navigation Systems using satellite:

Satellite navigation systems use a series of satellites placed in specific orbits around the Earth to figure out where the receiver is located. The satellites transmit orbital and timing information. The receiver uses this information from several satellites to calculate its position. Commercial systems are accurate to a few meters, but high-end systems are accurate to a few centimetres.

GPS (Global Positioning system):

GPS is a common term used these days for satellite navigation systems. But GPS is associated with the US owned NAVSTAR system.

TWO global operational global satellite navigation systems in existence in the world today: GPS (Global Positioning system-US owned) and GLONASS (Russian).

TWO global satellite navigation systems in development are **Compass (China) and Galileo (European Union).**

Three regional satellite navigation systems exist today **(IRNSS (India), BeiDou (China), QZSS (Japan and Australia))**

GPS – working:

GPS is a system.

- GPS is made up of three parts: satellites, ground stations, and receivers.
- Satellites act like the stars in constellations where they are supposed to be at any given time.
- It is a network of about 30 satellites orbiting the Earth at an altitude of 20,000 km.
- The ground stations use radar to make sure they are placed where they are supposed to be.
- A receiver, (like you might find in your smart phones), is constantly listening for a signal from these satellites.
- The receiver figures out how far away they are from some of them.

- Once the receiver calculates its distance from four satellites, it knows exactly where you are.
- From miles up in space your location on the ground can be determined with incredible precision.
- They can usually determine where you are within a few meters of your actual location.
- More high-tech receivers, though, can figure out where you are to within a few inches.

Wherever you are on the planet, at least four GPS satellites are visible at any time. Each one transmits information about its position (and the current time) at regular intervals. These signals, travelling at the speed of light, are intercepted by your GPS receiver which calculates how far away each satellite is based on how long it took for the messages to arrive.

- Once it has information on how far away at least three satellites are, your GPS receiver can pinpoint your location using a process called trilateration.

Information and Communication Technology:

Information and communication technology is commonly known as IT or information technology. Information technology is the study or use of systems (specifically computers and telecommunications) for storing, retrieving or sending information. ICT as forms of technology that are used to transmit, process, store, create, display, share or exchange information by electronic means. ICTs have evolved over a period of time. The size of ICTs has evolved starting from room sized computers to small tools like handheld devices. The

eed has evolved from dial up connections to data packets through gh speed broad bands. The media used in ICT has evolved from ono-medium to multimedia.

IT is an inseparable part of modern life. From the smart phones e use to our lap tops, everything in the line has become an integral art of modern man.

pplications of ICT:

pplications are:

1) **Business:** Today a lot of business transactions happen through internet and hence called e-commerce.

   - ICT has made its impact on marketing, customer visit, product browsing, online shopping, reviews on products, receipt and process order.
   - In short terms, e commerce has changed the way world has done business before. Information technology has led to tremendous change and innovation in the field of business.

Innovation led to smarter apps, better data storage, and faster processing and wider information distribution. Application of ICT has also helped to enhance the quality and boosts productivity. In short terms, businesses have adopted technology have certain advantages over the others, such as:

- Accurate business planning.
- More effective marketing.
- Higher global sales.

- More systematic management.
- Real time monitoring.
- Instant customer support.

In this world of tough competition, only ICT can gi momentum to any business.

(2) Financial Services: Every bank provides online services nov Banking is in our finger tips. Opening a new accou transferring money, payments etc. could be done through onlin banking.

- Net banking has saved a lot of time of the customers b making banking a very easy and accessible process.
- E-banking came into existence in Europe and USA in the beginning of 1980.
- E-banking concept is relatively new in India. In 1990s the then new private sector banks that lacked strong branch network unlike public sector banks had to come up with innovative ideas such as home banking with the help of ICT.
- E-banking provides flexibility in banking operations. Some of the e banking services includes credit/debit cards, ATM, E-cheques, electronic fund transfers, mobile banking, telephone banking, internet banking etc.
- E-banking offers several benefits to the customers such as anytime-anywhere banking, brings down cost of banking, online payment at the time of purchases, cash withdrawal from any ATM etc.

- Application of ICT helps the bank to thrive in the competitive field, it reduces customer visits to the branch, on-line banking can also act as a marketing tool for the promotion of various schemes of the bank.

(3) **Entertainment:** Internet is a major hub of entertainment. From movies to games, internet has a lot to offer. Online platforms like amazons prime and Netflix offer a variety of options to the customers. There are numerous online platforms for music as well such as Wynk, Saavn, Amazon music etc.

Internet has a good collection of books and other online resources. It also provides platform for social networking. Missing a television program is not a problem now, as it can be recorded for watching later. Digital cameras, printers and scanners have enabled more people to experiment with image production.

(4) **Public Service:** Government agencies, both at the central and state level are trying to bring in e governance practices. Digital India initiative by govt. of India is an example for this. Government services are moving online now. Payment of electricity bills, booking of gas cylinders, booking of railway tickets, payment of phone bills etc. can be done through the respective portals. Over the years, a large number of initiatives were taken by governments at the centre and state for the smooth conduct of e-governance. Efforts have been made to improve the delivery of public services. Some of the major steps taken towards e-governance include computerization of government departments, large scale digitization of records etc. Govt. of India has come up with the national e-governance plan

(NeGP) in 2006 to bring public service closer to the citizens of India.

(5) Education: Education is one major sector which has undergone the influence of innovations in ICT. Starting from providing online content service, platform for organizing learning experiences to managing learning and assessment has been changed greatly by ICT developments.

Every stakeholder in education have benefitted from the implementation of ICT. ICTs have the potential to be used in various practices of education, including teaching and learning, assessment, administration and teacher professional development. Acquiring knowledge is a never ending process. ICT has made any time-anywhere education a reality. Learners can enrol themselves for online programmes and learn at their pace. ICT has provided access to a variety of learning resources through online libraries and other portals. Online learning has helped children with disabilities to learn at their own pace thereby helping to mainstream them. Govt of India has come up with an online portal for learners called as SWAYAM. It aims at providing the best teaching learning resources to all including the most disadvantaged.

Features of ICT:

(a) Speed: The innovations in internet and broadband have made the communication immediate. Modern mobile applications have allowed people to communicate with each other in real time. Time and distance disappears in this era of ICT.

(b) **Precision:** The information that is communicated through ICT is very precise. Since there is no time lag in the communication, there is less chances of miscommunications.

(c) **Versatile:** ICT can help in doing simultaneous tasks. Data can be gathered, verified, processed and managed. Information can be communicated. ICT provides a multi-media platform for such communication.

(d) **Cost:** ICT tools seem to be very expensive. But when we account for their reach, they come out to be very cheap. For example, the cost involved in printing text books is very high both economically as well as environmentally, whereas to make the digital format of the book only the initial investment is required.

Technological Convergence:

Parallel developments in the field of technology lead to convergence of technology and telecommunications. Digital revolution made data processing very easy to handle.

In general, convergence is a coming together of two or more distinct entities or phenomena. Technological convergence is increasingly prevalent in the information technology world; in this context, the term refers to the combination of two or more different technologies in a single device.

One example of convergence is taking pictures with a cell phone-combining the functionalities of a camera and a telephone. Another example is a smart TV where internet browsing can be done. Technological convergence may influence consumers to accept new technologies.

A convergence is when two or more distinct things come together. Technology convergence is when different forms of technologies reside in a single device, sharing resources and working together, creating new technology with ease.

Technological convergence has both a technical and a functional side. The technical side refers to the ability of any infrastructure to transport any type of data, while functional side means the consumers may be able to integrate in a seamless way the functions of computation, entertainment, and voice in a unique device able to execute a multiplicity of tasks.

The Types of Convergence:

There are mainly three types of convergence. They are:

(1) **Digital convergence:** Digital convergence is when you can have the same multimedia content available to view on different types of devices, because it is digitized. Digitized content is information organized into units called bits or bytes. These are in the form of binary numbers (1s and 0s), and when information is binary it can be intermingled, sent, published, and stored with the same efficiency. The best example for digital convergence is smart phone. In a smart phone, ICT, computer networks and media come together in one platform.

(2) **Internet of transport:** This is the transportation industry shifting to using digital technologies and being constantly connected to the network. This includes everything from the cars specifically designed to accommodate the smart and internet activities to public transportation options that allow mobile

payment options, real-time updates, and support Wi-Fi so there are no more coverage dead spots.

(3) **Media convergence:** Media convergence is the joining together of different mass communication formats and the Internet. This is especially apparent in the creative media sector. Print media many a times give specific links for the readers to collect more information about the story.

To conclude, it could be said that technology convergence is expanding services in what were once traditionally separate industries. The industries of information technology, telecommunication, consumer electronics, and entertainment (ITTCE) are coming together into one industry because digitized content is making them more similar by blurring the lines between them.

Biotechnology and Genetic Engineering:

Biotechnology is technology based on biology to develop products and methods that help to improve human lives. The earliest biotechnologists were farmers who developed improved species of plants and animals by cross pollination or cross breeding. Man has used biotechnology from times immemorial to make food products such as bread and cheese. In recent years, biotechnology has expanded in sophistication, scope, and applicability. Modern biotechnology has come up with products and technologies to combat devastating and rare diseases, to increase food production and longevity of crops and to have safer, cleaner and more efficient industrial manufacturing processes.

The science of biotechnology can be divided into sub disciplin called red, white, green, and blue. Red biotechnology involv application of biotechnology to the field of medicine such a developing new drugs, stem cell therapy etc. White (also called gra biotechnology is associated with industrial processes such as th production of new chemicals or the development of new fuels fo vehicles. Green biotechnology is related to agriculture and consists o developing pest-resistant grains or disease-resistant animals. Blu biotechnology, mainly focuses on marine and aquatic environment.

Genetic Engineering:

Genetic engineering is the controlled manipulation of the genes in an organism to make it better in some terms. In other words, it is the direct manipulation of an organism's genome using biotechnology.

A gene contains information that will give the organism a trait. Genetic engineering is also called as genetic modification. It makes use of certain technologies to change the genetic makeup of organisms, through the transfer of genes to produce improved organisms or new organisms.

Genetic engineering physically removes the DNA from one organism and transfers the gene(s) for one or a few traits into another. This results in a genetically modified organism (GMO). The first GMOs were bacteria generated in 1973 and the first GM animals were mice in 1974.

The main focus of genetic engineering has been on agriculture.

Steps in genetic engineering:

The main four steps in genetic engineering are:

(1) **DNA Extraction:** DNA extraction is the first step in the genetic engineering process. This step includes the extraction of the desired gene. In order to work with DNA, scientists must extract it from the desired organism. A sample of an organism containing the gene of interest is taken through a series of steps to remove the DNA.

(2) **Gene Cloning:** In this step, from the extracted DNA, the single gene of interest is separated and several thousands of copies are made.

(3) **Gene Design:** Once a gene has been cloned, certain modifications are made to the gene so that it works once inside a different organism. This is done in a test tube by cutting the gene apart with enzymes and replacing gene regions that have been separated.

(4) **Transformation:** In this step, the new gene is inserted into some of the cells using various techniques. Some of the more common methods include the gene gun, agro bacterium pump or microfibers. The main goal of each of these methods is to transport the new gene(s) and deliver them into the nucleus of a cell without killing it. Transformed plant/animal cells are then regenerated into transgenic plants/animals. They are grown to maturity in greenhouses/labs.

Genetic engineering has several advantages such as production of food bearing plants that are resistant to extreme weather and adverse climates, insect infestations, fungal and bacterial infections. As

Malthus has said, human populations grow exponentially (i.e., doubling with each cycle) while food production grows at an arithmetic rate (i.e. by the repeated addition of a uniform increment in each uniform interval of time). So the only way to meet the increasing food demand is genetic engineering, through which crops with better disease resistance and yield could be developed.

But genetic engineering is not devoid of dangers, it may lead to the creation of new allergens and toxins, may lead to the development of new plants that may disturb the delicate balance of the ecosystem. GMO use in the food chain may lead to increased antibiotic resistance as well. The darkest aspect of genetic engineering is the possibility that a government or institution might undertake to enhance human beings by means of genetic engineering. Genetic engineering may also be used to make biological weapons in the future.

Application of biotechnology:

Biotechnology is a very huge field and its applications are used in a variety of fields of science such as agriculture and medicine. Genetic engineering techniques have been applied in numerous fields including research, agriculture, industrial biotechnology, and medicine.

The fields of biotechnology and genetic engineering have introduced techniques like gene therapy and recombinant DNA technology which make use of genes and DNA molecules for diagnosis of diseases as well as to replace weak and injured cells. Some of the main applications of biotechnology are listed below:

(1) **In medicine:**

(a) **Biopharmaceutical:** Making use of the techniques of biotechnology, the drugs biopharmaceuticals were developed. These drugs are not manufactured with chemicals but micro-organisms. The source of biopharmaceuticals is large molecules of proteins. These molecules help to attack the hidden mechanisms of the disease and destroy them. In the near future, scientists may develop drugs which can be used against the diseases like hepatitis, cancer and heart diseases.

There are different ways of developing these drugs and one method is bioreactor. It is a container that grows microorganisms under specific conditions. These microbes are then used to make biopharmaceuticals.

(b) **Gene therapy:** Gene therapy is another application of biotechnology. It can be used in the treatment and diagnosis of diseases such as cancer and Parkinson's disease. In this, the unhealthy genes are replaced by the healthy ones. These healthy genes may make corrections in the genetic information and thus the genes start working in the favour of the body.

(c) **Pharmacogenomics:** Pharmacogenomics is a new field and application of biotechnology. It studies the genetic information of a person. The word has its origins from pharmacy and genomics. Pharmacogenomics study the body's response to drugs. Not every drug has the same effect on all. The effectiveness of the drug depends upon

the body. Using this technique, scientists can develop drugs which are very effective to individual patients.

(d) **Genetic testing:** Genetic testing is a type of medical test that identifies changes in chromosomes, genes, or proteins. The results of a genetic test can confirm or rule out a suspected genetic condition or to determine the probability of contracting hereditary diseases and to screen carriers.

There are different methods to do genetic testing such as molecular genetic tests (or gene tests) that study single genes or short lengths of DNA to identify variations or mutations that lead to a genetic disorder, chromosomal genetic tests to analyse whole chromosomes or long lengths of DNA to see if there are large genetic changes, such as an extra copy of a chromosome, that cause a genetic condition and biochemical genetic test that study the amount or activity level of proteins; both of them are indicators of the underlying genetic disorder.

Genetic testing is also used by legal systems to identify criminals as well as to test the paternity of the child.

Apart from this, advancement in the field of biotechnology had contributed to the field of medicine in many ways such as quicker diagnosis of infectious diseases, production of vaccines, enzymes, vitamins, hormones and antibiotics.

(2) **In agriculture:** Biotechnological advances have helped scientists in developing disease resistant, high yield producing plant varieties.

Biotechnology has immense applications in the field of agriculture as well. Some of them are:

(a) **Plant and Animal Reproduction:** Traditional methods of improving the quality of plants and animals such as cross pollination and cross breeding are time consuming. Advances in biotechnology had made it possible to remove undesired genes and introduction of desired foreign genes, thereby creating high quality breeds without much waiting time.

(b) **Pesticide-Resistant Crops:** Many a times, farmers are not able to apply herbicides in their farms to kill the weeds because they destroy the crops as well. Pesticide resistant crops are not destroyed by herbicides. Hence it becomes easier for the farmers to control the weeds. Genetically modified crops are used as pesticide resistant crops.

(c) **Nutrient Supplementation:** In order to supplement the nutrition needs of people, especially from under developed countries, scientists have developed grains fortified with vitamins and minerals. An example is golden rice which contains beta caroteine that helps to create vitamin A.

(d) **Developing crops that can with stand extreme conditions:** Scientists have developed crops that can withstand salinity, cold and drought. This enables the survival of the plants even in extreme conditions.

(e) **Aesthetic application:** Bio technology is also used in improving the colour, smell, size and other features of

flowers. For example, scientists have developed blue roses through genetic modification.

Genetically Modified Organism:

A GMO or a genetically modified organism is created in a laboratory where genes from the DNA of one species are extracted and artificially forced into the genes of an unrelated plant or animals. The foreign genes may come from bacteria, viruses, insects, animals or even humans. Because this involves the transfer of genes, GMOs are also known as "transgenic" organisms. This process may be called either Genetic Engineering (GE) or Genetic Modification (GM); they are one and the same.

Genetically Modified Plants:

GM is a technology that involves inserting DNA into the genome of an organism. To produce a GM plant, new DNA is transferred into plant cells. Usually, the cells are then grown in tissue culture where they develop into plants. The seeds produced by these plants will inherit the new DNA. The characteristics of all living organisms are determined by their genetic makeup and its interaction with the environment. The genetic makeup of an organism is its genome, which in all plants and animals is made of DNA. The genome contains genes, regions of DNA that usually carry the instructions for making proteins. It is these proteins that give any organism its characteristics. Genetic modification of plants involves adding a specific stretch of DNA into the plant genome, giving it new or different characteristics. This could include changing the way the plant grows, or making it resistant to a particular disease. The new

DNA becomes part of the genetically modified plant's genome which is passed on to the next generation.

GMOs receive substantial restrictions from many countries. Still genetically modified products are widely available in the markets. Some of them are corn, soy, zucchini, canola, and sugar beets

Genetically Modified Crops in India:

India is yet to approve commercial cultivation of a GM food crop. The only genetically modified cash crop under commercial cultivation in India is cotton.

Bt Cotton:

For the time being, the only genetically modified crop that is under cultivation in India is Bt cotton which is grown over 10.8 million hectares. Bt cotton was first used in India in 2002.

Bt Brinjal:

The GEAC in 2007 recommended the commercial release of Bt Brinjal, which was developed by Mahyco (Maharashtra Hybrid Seeds Company) in collaboration with the Dharward University of Agricultural sciences and the Tamil Nadu Agricultural University. But it was not taken forward.

GM-mustard:

Dhara Mustard Hybrid-11 or DMH-11 is a genetically modified variety of mustard developed by the Delhi University's Centre for Genetic Manipulation of Crop Plants. If approved by the Centre, this will be the second GM crop, after Bt Cotton, and the first transgenic food crop to be allowed for cultivation in the country. Field trials for 21 GM food crops, including GM vegetables and cereals have been

approved by the government though commercial cultivation of GM food has not been permitted by any State government in India till now.

Genetically Modified Animals:

A genetically modified animal is one whose genetic material has been altered by adding, changing or removing certain DNA sequences in a way that does not occur naturally. This process is carried out to introduce a new trait or change a characteristic such as the disease resistance of an animal. DNA is the genetic material of an organism and carries the instructions for all the characteristics that an organism inherits. Changes introduced in an animal's genetic make-up can therefore be transmitted to the next generation. Some of the examples of genetically modified animals are Dolly the sheep, the first cloned sheep, Glow-in-the-dark mice etc. Scientists at Caltech created glow-in-the-dark mice by injecting single-celled mouse embryos with a virus that contained a jellyfish gene for green fluorescence. Researchers have since created glow-in-the-dark fish, cats, and other animals, silk spinning goats. In 2012, scientists at the University of Wyoming engineered goats to produce a protein in spider silk in their milk. Silk is useful for a variety of applications in materials science and medicine, and it's hard to get spiders to make enough of it.

Nanotechnology:

Nanotechnology is the study and application of exceptionally small things across the different fields of science such as chemistry, biology, physics, material science and engineering. One nano metre is 10^{-9} metres.

Richard Feynman, the famous physicist is considered as the father of nano technology. The term nanotechnology was coined by Taniguchi for the first time.

Nanoscience and nanotechnology involve the ability to see and to control individual atoms and molecules. With the invention of powerful microscopes such as scanning tunnelling microscope (STM) and the atomic force microscope (AFM), the field of nanotechnology flourished.

Though the branch of nanotechnology is new, nanoscale materials were used from olden days. Alternate-sized gold and silver particles created colours in the stained glass windows of medieval churches hundreds of years ago. The artists back then just didn't know that the process they used to create these beautiful works of art actually led to changes in the composition of the materials they were working with.

Scientists of today are trying to make materials at the nano level as it enhances the strength and durability of the products.

Manufacturing Approaches:

The two major approaches to get nano materials are -one is the bottom up and the other is top down approach. Bottom up produces components which are made of single molecules, and molecular forces hold them together that are far stronger than the forces that hold together macro-scale components.

Enormous amount of information could be stored in devices build from the bottom up. For example, use of AFM, liquid phase techniques based on inverse micelles, sol gel processing, and chemical vapour deposition (CVD).

Top manufacturing involves the construction of parts through methods such as cutting, carving and moulding and hence these methods are not flawless, it is not a suitable way to manufacture highly advanced nano devices. Laser ablation, milling, nanolithography, hydrothermal technique, physical vapour deposition and electrochemical method (electroplating) uses top down approach for nano-scale material manufacturing.

Nanotechnology provides us the chance to synthesize nano-scale building blocks with control on size, composition etc. Materials manufacturing will be revolutionized by further assembling into larger structures with designed properties. Without machining, metals, polymers, ceramics etc. can be manufactured at exact shape.

Applications of Nanotechnology:

(1) Medicine: Even today there are a lot of illnesses that create trouble for mankind such as diabetes, cancer, Parkinson's disease etc. Nanotechnology can bring a solution for these problems.

- Nano medicine is an application of nanotechnology which works in the field of health and medicine. Researchers are aiming to develop highly customized nano particles that can deliver drugs directly to diseased cells in the body. This technique can be effectively used in chemotherapy where the healthy cells are damaged during the treatment.
- With the help of nano medicine early detection and prevention, improved diagnosis, proper treatment and follow-up of disease is possible.

- Gene sequencing has become more efficient with the invention of nano devices like gold nano particles, these gold particles when tagged with short segments of DNA can be used for detection of genetic sequence in a sample.
- With the help of nanotechnology, damaged tissue can be reproduced or repaired. This can revolutionize organ transplants in the future.
- Researchers have developed 'nanosponges' (polymer nano particles coated with a red cell membrane) that can absorb and remove toxins from the blood stream.
- Researchers are trying to develop special carbon nano tubes that can create focused sound waves which can be used in non-invasive surgery especially in tumour removal surgeries without damaging healthy tissue.
- Specialized bismuth nanoparticles have been developed to concentrate radiation used in radiation therapy to treat cancers.
- Nanotechnology has made excellent contribution in the field of stem cell research. For example, magnetic nanoparticles (MNPs) have been successfully used to isolate and group stem cells. These advances speed up the development of stem cells toward the application in regenerative medicine.

(2) **Electronics:** Nanotechnology has greatly contributed to major advances in computing and electronics, leading to faster, smaller, and more portable systems that can manage and store larger and larger amounts of information.

The field of nanoelectronics is developing at a rapid rate. Nano electronics encompasses a diverse set of devices and materials that are so small that the physical effects alter the materials' properties on a nanoscale.

Transistors, the basic switches of modern computing became smaller through nanotechnology. Computers having magnetic random access memory (MRAM) enabled by nanotechnology, will be able to "boot" almost instantly and can save data quickly while shutting down. Electronic products are changing form and shape with the help of nanotechnology. Now we have flexible, bendable, foldable and stretchable electronic products.

Nanotechnology is used in the manufacture of ultra-responsive hearing aids, antimicrobial/antibacterial coatings on keyboards and cell phone casings and flexible displays for electronic readers.

(3) Food: Nano particles can enhance flavours, enhance nutrient contents and it can also be used to remove the pathogen contents from the food. Food wrappers made of nano particles can even increase the life of the food packed inside.

Clay nano composites are being used to provide an impermeable barrier to gasses such as oxygen or carbon dioxide in lightweight bottles, cartons and packaging films.

Storage bins are being produced with **silver nano particles** embedded in the plastic. The silver nano particles kill bacteria from any material that was previously stored in the bins, minimizing health risks from harmful bacteria.

Research is also being conducted to develop nano capsules containing nutrients that would be released when nano sensors detect a vitamin deficiency in the body.

(4) **Fuels:** Nanotechnology can help in meeting the energy needs of the future through the production of fuels from low grade and normal raw materials and also by making improved engines with increased mileage.

(5) **Consumer goods:** Nanotechnology has got various applications in consumer goods as well.

- Aero gel- a nano porous material can act as an excellent insulator is used for insulating the walls as it can considerably reduce the thickness of conventional insulation.
- Nano particle based solar cells attached in briefcases help in charging electronic devices on the go.
- Nano particles contained in the skin care products help to deliver vitamins deeper into the skin and also give a smooth finish to the makeup.
- Sunscreens that use nano particles help to block UV rays without leaving white residue on the skin.
- Toothpastes containing nano scopic crystals of hydroxyl apatite, which is the main ingredient in natural dentin, act to seal the dentin tubuli, stopping the pain due to sensitivity.
- Many cleaning products for glass, tiles and shoes, contain nano particles. Non-stick frying pans are making

use of nano composites for heavy duty non sticking surface finishes.

(6) **Sports:** Nanotechnology applications have helped in increasing the strength of tennis racquets, reducing the rate at which air leaks from tennis balls and filling the imperfections in club shaft materials. Nano composite is used in the manufacturing of golf clubs, making them lighter and stronger.

Nano technology is used in base ball bats, badminton racquets and hockey sticks as well. Nano particles are also used in the manufacture of ultra-light weight swim wear, sport shoes and antimicrobial sports socks containing silver nano particles.

(7) **Fabrics:** Nanotechnology is used in textile industry for producing fabrics with durability and nicer colours. Nanotechnology has helped to create clothes which are made of wrinkle resistant and stain repellent threads. Socks containing silver nano particles help in fighting infection and odour. Silver-containing fabrics have been successfully investigated for treating neurodermatitis. Nano fibers allow improvement of fabric properties without a significant increase in weight, thickness or stiffness.

(8) **Space:** With the help of carbon nanotubes scientists are trying to reduce the weight of spaceships. Special space suits are developed with bio nano robots. These bio nano robots are present in the outer and inner layers. These robots in the outer layer would repair the space suit in case of any damage and the inner layer robot caters to the medical needs of the astronaut.

(9) **Environment:** Nanotechnology will play a critical role in coming 50 years by protecting the environment and providing sufficient energy for a growing world. The advanced techniques of nanotechnology can help storage of energy, its conversion into other forms, eco-friendly manufacturing of materials and by better enhanced renewable energy sources.

Nanotechnology can be used for less expensive energy production and for renewal energies, in solar technology, nano-catalysis, fuel cells and hydrogen technology. Carbon nano tube fuel cells are used for storage of hydrogen, thus finds application in power cars.

Nano porous filters in automobiles can clean the exhaust mechanically. Nano technology can also be used in removing the pollutants from water thereby cleaning it. Nanotechnology can help in developing new eco-friendly and green technologies that can minimize undesirable pollution.

Nanotechnology is a blooming field. The applications of nanotechnology are also immense. Apart from the applications listed above, nanotechnology is widely used in military and research. Provide that it is properly used; nanotechnology has the solutions for many problems of today.

(B) Issues of Access, Control and Misuse of Technology:

Mankind has to thank technology for the standard of living we enjoy now. Technology has become a synonym of progress and development. But it is a double edged sword. If not used carefully, technological advancement can cause disasters. This section

discusses some of the important issues of access, control and misuse of technology.

Issues of Access of Technology:

Any form of technology or knowledge becomes useful when it cater to the needs of a huge group. Technology should be accessible to all. But in reality, the accessibility is limited to a privilege few.

The major factors restricting the accessibility of technology include:

(1) **Restrictions imposed by governments:** Due to political reasons or citing security issues, governments of different countries ban certain technologies. For example, some countries have very strict internet censoring that many contents are blocked and not accessible.

(2) **Intellectual property right:** Any technological advancement is the creation of a person. If it is patented or protected under intellectual property rights, nobody can access or create copies of the resource without the consent of the creator, thereby limiting the access.

(3) **Poverty:** Poverty and low socio economic status of people restrict the access to technology. Basic infrastructure and some amount of initial investment are required to access any technology. Some basic level of knowledge is required to use and apply technology. People from lower socio economic back grounds are mostly illiterates or with little education. This lack of education is also a hindrance in their access of technology. With the limited resources they have people from lower socio economic back ground are deprived of technology

How to reduce the accessibility problem?

Resources with patents are often expensive to purchase. It is difficult for individuals to purchase it. So organisations can purchase the resources and make it available for the people. Efforts may be made to improve the infrastructure so that more people could access technology.

Issues of control of technology:

Every technological innovation has got a direct relationship to society. Once a new technology comes out of the lab it is no longer the property of the developer or the funding organisation, but it belongs to the society, the individual. Also, people are getting addicted to technological advancement and today mobile phones have become an integral part of the person, without which they feel incomplete. If the technology reaches the wrong hands, it can create havoc. Many recent experiences assert that a check or control is required in using technology. Some of the important areas where a control is required are listed below:

(1) **Parental monitoring:** Children are often victims of technological abuse. Even toddlers are able to use mobile phones and tablets with ease. They spent hours together with the phone. Many a times, children who use internet for their project related work, start searching for other unwanted things, because in many computers an autosuggestion option is active. They may become victims of cyber-crimes and bullying. So parental monitoring is very much required to save the children from the dangers of cyber world. Nowadays special softwares

are available in the market to ensure parental control. Such safety measures have to be followed to prevent danger.

(2) **Advances in biotechnology:** The field of biotechnology is advancing at a rapid rate. The technological advancement if it goes to the wrong hands can lead to major issues. Many new and transgenic plants and animals are being produced, and seeds, embryos, sperms are preserved. It may so happen that one day may come when only genetically engineered seeds are available pointing to the complete unavailability of rare seed varieties. Multinational companies with profit motive may become the sole distributors of seeds. Moreover, the genetically modified organisms (GMOs) should be carefully researched and monitored to ensure that the hazards to users and environment will not occur. In addition, concerted action should be undertaken to ensure that necessary consideration is given to the ethical and social effects of such studies. People should be known about the impacts of GMOs and genetically engineered products. Government and concerned agencies should pay attention to this issue.

(3) **Cyber safety:** Cyber world is not safe anymore. Cyber-crimes have no geographical boundaries. Someone who sits in Nigeria can attack someone in India. Cyber world gives a lot of anonymity and it can lead to more serious crimes. Police department has a special wing to handle cyber related crimes. We need more powerful laws and an expert team to handle the safety threats posed by the cyber world.

(4) **Environmental problems:** One of the major by-products of technological advancement is environmental issues. With

electronic gadget comes electronic waste; with industrial advancement comes pollution. There should be a strict check on the amount of waste generated by various industries. Organisations should monitor their waste production. Government agencies should strictly follow up the pollution control measures taken by the industries.

(5) **Other health hazards:** Nuclear technology is considered as the power of future. But there are many doubts in the minds of people about nuclear plants and energy. The recent Koodankulam protest is an example for that. Prolonged radiation may lead to other health issues. Government may take necessary check on these problems as well.

From the above problems, it is clear that some kind of control is required on technology. Control can be exercised by the organisations, governments, national and international agencies depending upon the nature and extent of the issue.

Issue of misuse of technology:

As discussed earlier technology is like a double edged sword. Though it provides lot of benefits, it can be really dangerous when misused. Some of the ways in which technology is misused are

(1) **Misuse of information technology:** Information technology has opened the gateways of knowledge and possibilities to everyone. But today, it has become the fertile field for organised crimes and bullying. Some of the ways in which IT is misused are:

(a) **Hacking:** Hacking is the process of trying to get access of someone's computer through illegitimate means. Hacking

destroys the data stored in a computer. Hacking includes using computers to commit fraudulent acts such as fraud, privacy invasion, stealing corporate/personal data etc.

(b) **Cyber bullying:** Cyber bullying is bullying that takes place over digital platform. It can occur through SMS, Text, and apps, or online in social media, forums, or gaming where people can view, participate in, or share content. Cyber bullying includes online shaming of a person through posting or sharing malicious/defaming contents. Many-a-times it crosses the limits and end up into criminal acts.

(c) **Cyber financial frauds:** In the year 2015-16 alone, more than 16000 cases of cyber financial frauds were reported in India. This shows an alarming rate of increase in cyber finance crimes. It also indicates that digital platforms for financial transactions are not as safe as assumed.

(2) **Misuse of medical technology:** Many modern medical technologies are used for the wrong reasons. For example, sonography which is actually used for detecting foetal anomalies is widely used to detect the sex of foetus. This has led to wide spread female foeticide. In the rural areas many unauthorized ultrasound scan centres operate and they misuse the technology for determining the sex of the foetus. Many of these centres perform illegal foeticides. Misuse of sonography is one of the major reasons for the declining gender ratio in India. Though we have prenatal diagnostic techniques act, 1994 to prevent the misuse of sonography, it is often unsuccessful in preventing the crime because of the lack of resources to carry out inspection and monitoring, lack of corresponding qualified staff, poor

performance of advisory committees at various levels and insufficient understanding of the law and procedural errors.

(3) **Misuse of media:** Media act as powerful sources of information. It can create an impact in no time. But now media is behind TAM (Television audience measurement) rating and just focus upon sensationalising unwanted issues. There is no room for positive news, but negativity is given prominence. This can have a negative impact on the public and younger generation. Social media is often misused for spreading hatred. Morphed images and fake messages become viral in no time creating hatred and disharmony among people. Users do not check the authenticity of these messages and forward it to their circles. Online body shaming, misogyny and internet trolling are very common. Nobody is spared from the online media attacks. We have to exercise caution before forwarding messages on social media.

(4) **Misuse of biotechnology:** Biotechnology is a boon in many ways, but the knowledge is often misused for wrong things. For example, biotechnology is used for making genetic modifications in the organism. The long term effects of this modification and the impact it can have on the food cycle is not known. Similarly, latest techniques are used in the manufacture of bio weapons which is a real threat to humanity as the intensity and reach of the attack is so vast. For example, in 1967, the World Health Organization (WHO) spearheaded an effort to eradicate smallpox through mass vaccinations. As a result, 1977 marked the last naturally occurring case of smallpox. The disease was effectively eliminated from the natural world, but laboratory

copies of smallpox still exist. Both Russia and the United States possess WHO-approved stores, but as smallpox played a role in several nations' bio weapon programs, it's still not known how many secret stockpiles exist in the world.

(5) **Misuse of nuclear technology:** Nuclear technology is the source of tomorrow's energy. But many-a-times it is used for the wrong reasons such as to make powerful weapons. World had witnessed the intensity of a nuclear attack in Japan's Hiroshima and Nagasaki. Though nuclear energy could be used for lot of productive purposes, now countries are accumulating nuclear weapons just to claim their superiority before other nations. One more nuclear attack could be devastating to the world. Nine countries in the world have nuclear weapons. USA and Russia together have enough nuclear weapons to destroy the entire world several times. The after effects of a nuclear attack, especially the radiation continue for generations, thereby making its impact manifold. More caution has to be exercised when nuclear energy is used for power production as the slightest of error can lead to major accidents.

Conclusion:

To conclude, it could be said that, technology is very much required for the world and its people. But as we have seen there are various issues concerning the use of technology. If proper caution is not exercised, technological advancement can have a devastating effect on the people. Hence, it is very much important to create awareness about the safe and careful handling of technology for the betterment of humanity.

Questions

(1) What is laser technology? Discuss its applications.

(2) What is satellite technology? What are its uses?

(3) What is ICT? Describe its uses.

(4) What is bio technology? Explain the applications of biotechnology and genetic engineering.

(5) Comment on the various applications of biotechnology in agriculture. ***(April 19)***

(6) What is nanotechnology? Discuss its applications.

(7) Describe nanotechnology and its applications. ***(April 18)***

(8) Discuss applications of nanotechnology in the field of medical science and consumer products. ***(Oct. 18)***

(9) Discuss in detail the various issues of access, control and misuse of technology.

(10) With regard to the contemporary technology, explain: ***(April 18)***

- (a) Issues of control and misuse.
- (b) Lack of access.

(11) Write a note on misuse of science and technology. ***(Oct. 18)***

(12) Discuss India's achievements in the field of satellite technology. ***(April 19)***

(13) Explain/Describe in brief the following:

- (a) Laser technology.
- (b) GIS. ***(April 18)***
- (c) Remote sensing. ***(April 19)***
- (d) ICT. ***(April 18)***
- (e) Biotechnology.
- (f) Genetic engineering.
- (g) Video conferencing. ***(Oct. 18)***
- (h) Virus/Worm attack. ***(Oct. 18)***

Project topics

(1) Interview a scientist and make a report.

(2) How can nanotechnology help us clean up toxic waste?

(3) Make a report on any 10 dreadful diseases of this century.

(4) Do cell phones or microwaves cause cancer?

(5) How can we solve the problem of "space junk"?

(6) Should humans really make the effort to find a way to live in space or on other planets?

(7) Make a report on the increasing cyber-crime rate in India.

MODULE - IV

Chapter 4

Introduction to Competitive Examination

*PART A: **Basic Information on competitive Examinations the patterns, eligibility criteria and local centres: (i) Examinations conducted for entry into professional courses:** Graduate Record Examinations (GRE), Graduate Management Admission Test (GMAT), Common Admission Test (CAT) and Scholastic Aptitude Test (SAT) – **(ii) Examination conducted for entry into jobs by Union Public Service Commission,** Banking and Insurance Sectors and National and State Eligibility Tests (NET/SET) for entry into teaching profession - **PART B: Soft Skills required for competitive examinations: (i) Information on areas tested:** Quantitative Ability, Data Interpretation, Verbal Ability and Logical Reasoning, Creativity and Lateral Thinking – **(ii) Motivation:** Concept, Theories and Types of Motivation – **(iii) Goal Setting:** Types of Goals, SMART Goals, Stephen Covey's concept of human endowment – **(iv) Time Management:** Effective Strategies for Time Management – **(v) Writing Skills:** Paragraph Writing, Report Writing, Filling an application under the RTI Act, Consumer Grievance Letter – Questions.*

Introduction:

A competitive examination is an examination where candidates are ranked according to their grades or marks. Examinations are conducted to evaluate a person of his knowledge or ability. If the examination is open for positions, then the candidates are ranked, according to the marks obtained. Competitive exams are considered

as an integral part to get admission into institutions. They are also called as entrance examinations.

Competitive examinations are considered a way of choosing worthy applicants without bias or other concerns. After completing a particular course or during the course these exams are conducted. Here the number of students is limited. Competitive examinations are conducted either to qualify a candidate for a particular course or to give entry into the institution. Competitive examinations are also conducted for selecting a person for a job. Clearing a competitive examination will help a person to enter into one's dream institution or to pursue their dream job. To clear these examinations, dedicated efforts along with certain soft skills are required. One should have clear knowledge of one's goals and should know how to use time effectively for getting success in competitive examinations.

These examinations select the best talented candidates, mainly evaluated on quantitative aptitude, verbal reasoning, logical reasoning, aptitude test, intelligent quotient, lateral thinking etc. Rigorous training, systematic planning and hard work are the keys to face the entrance examinations. In some of the institutions entrance examination are followed by group discussion and interview. Entrance examinations in India are more common to professional courses like MBA, Engineering, Law, UPSC, Banking, Railways etc.

The first step towards your preparation for any competitive examination is to understand the pre-requisites for the examination. Scanning through a few previous years' questions papers helps to get an idea about the exam pattern.

The first step towards your preparation for any competitive examination is to understand the pre-requisites for the examination.

You must thoroughly scan through the syllabus of the exam. Besides the syllabus, you must make a note of the weightage of various subjects, so that you can plan your preparation accordingly. Scanning through a few previous years question papers helps to get an idea about the exam pattern. To crack through a competitive exam one must follow these rules:

(1) **Make and follow a time table:** Once you understand 'What to prepare' it's your turn to plan 'How to prepare' Make a time-table with both short-term and long-term goals that would help you in timely preparation for the exam. A time table makes you more disciplined. Few points that you can consider while making a time table are:

- Set realistic goals that you can achieve (neither too low nor too high targets),
- Block your study hours during those times of the day when you think you are the most productive & can concentrate better,
- Block more time for the more difficult subject,
- Do not block study hours at a stretch, block some time for short breaks in between,

Making a time table is easy, but following the same is a more challenging part. Do not procrastinate; the tasks assigned for today must not be pushed to tomorrow.

(2) **Focus on concepts-No rote learning:** Focus on understanding the concepts throughout your preparation. Do not adopt rote learning technique. Understanding helps you to remember the concepts for a very long period of time.

Moreover, with a clear understanding of the concepts, you can comfortably handle questions related to those concepts. You should always make your own short notes in your own way, as they help you to revise a few days before the exam.

(3) **Self-evaluation is very critical:** Studying alone doesn't make your preparation complete. You must evaluate yourself time-to-time for an effective preparation. You must write sample papers for the competitive exam. If your exam is going to be of three hours, you must attempt the sample paper also in three hours. Evaluate and analyse your answer sheet well. Check your speed and accuracy while writing sample papers. Avoid guesswork if there is negative marking in the competitive exam you are preparing for.

(4) **Stay positive and confident:** 'Belief' is a very powerful tool. You must believe in yourself and your preparation. Ensure that you study the same way throughout the year, to avoid last minute stress. Spend 10-15 minutes before going off to sleep to quickly recap all that you learnt throughout the day. A bit of physical activity and meditation helps to improve concentration. Each and every moment you must tell yourself "I Can, I Will" and trust me you will do it.

PART - A:

Basic Information on Competitive Examinations the patterns, eligibility criteria and local centres:

(1) Graduate Record Examinations (GRE):

The **Graduate Record Examination (GRE)** is a standardized test that is required to be taken by students seeking admission to graduate schools in USA and other English speaking countries The

exam has been developed to evaluate the verbal, analytical and mathematical skills of the candidates. GRE is a computer-based test and has a user-friendly design. Individuals applying to graduate schools in order to pursue a Master's of Science (MS) or MBA are required to take the exam. The test scores are valid for five years from the date of the test.

The registration fee to take the GRE is $205 . This is cheaper than the $250 fee that you have to pay for GMAT.

Anyone can register for this exam, irrespective of age or qualifications. The only thing you need to keep in mind is the fact that you will be required to produce your original passport as proof of identity at the exam centre, so make sure that you have a valid passport before you register for the GRE exam.

GRE exam pattern consists of three sections, namely, Analytical Writing, Verbal Reasoning and Quantitative Reasoning. The Analytical Writing section will always be the first, whereas, the Verbal Reasoning, Quantitative Reasoning, and un-score sections may appear in any order. The writing section has two tasks and you have 30 minutes to complete each task, making the total time for this section to be one hour. Verbal section has to be completed within one hour as well as both the two sections require 30 minutes each. Same goes for quantitative section, where you get 35 minutes for the two sections as given below:

Section	No. of Questions	Duration
(1) Analytical Writing (One section with two separately timed tasks)	One "Analyse an Issue" task and one "Analyse an Argument" task	30 minutes per task
(2) Verbal Reasoning (Two sections)	20 questions per section	30 minutes per section

Section	No. of Questions	Duration
(3) Quantitative Reasoning (Two sections)	20 questions per section	35 minutes per section

GRE scores includes, (1) Verbal Reasoning score: On a 130 – 170 score scale, (2) Quantitative Reasoning score: On a 130 – 170 score scale. (3) Analytical Writing score: On a 0 – 6 score scale. GRE total score: On a 260 – 340 score scale. Your official test scores will be available in your account on the GRE website. They will be sent to the universities of your choice within six weeks of your test date. You will receive an email from ETS that your official GRE result is available in your account.

Like other international standardized exams, there are no fixed official GRE dates and you can choose any date according to your convenience and availability. The exam date that you choose should be at least two months before your first application deadline. So if the deadline for your application is November, you should choose a test date for September. If you feel the need to retake GRE exam, you can take it in October again. So you need to make a judicious decision about when you need to start preparing for GRE.

(2) Graduate Management Admission Test (GMAT):

The Graduate Management Admissions Test (GMAT) is the test required for admissions to nearly all MBA programs, as well as a growing number of other business-related graduate education programs. GMAT or the Graduate Management Admission Test is an online test. It intends to assess a candidate's analytical, writing, quantitative, verbal, and reading skills in written English for use in admission to a graduate management program, such as an MBA. There are the following four sections tested, thereby the syllabus:

(1) **Analytical Writing Assessment:** The first section of the GMAT is the Analytical Writing Assessment (AWA) which consists of one essay, timed at 30 minutes. One is required to write a type of essay that's known as an Analysis of an Argument. This section is graded on a scale of 0.0 to 6.0, but this score does not count towards your final GMAT score and is reported separately.

(2) **Integrated Reasoning:** The second section on the GMAT is Integrated Reasoning (IR). This section has replaced the second essay of the AWA since June 2012, since the test makers' own research showed that the types of questions on IR are more relevant for business school. You'll see four types of questions requiring you to process multiple data sources, much as you would in real life business interaction. This section is scored on a scale of 1 to 8, in 1-point increments.

(3) **Mathematics:** The next section of the GMAT tests your math skills, where you will have 75 minutes to answer 37 multiple choice questions. You'll see two types of math problems on the GMAT:

(a) Problem Solving: Multiple choice math questions that you're already familiar with

(b) Data Sufficiency: Special type of math problems where you're given two pieces of information and are asked whether you have sufficient data to answer a given question

(4) **Verbal:** The final section of the GMAT tests your verbal skills. You will have 75 minutes to answer 41 questions. There three types of questions tested on the GMAT verbal section:

(a) **Sentence Correction:** Grammar questions where you w be asked whether the underlined portion of a sentence correct, and if not to select the best answer.

(b) **Critical Reasoning:** Questions asking you to evaluate th structure of an argument.

(c) **Reading Comprehension:** Questions testing you understanding of a passage.

Your Analytical Writing Assessment (AWA) score will be scored separately, from 0.0 to 6.0. A score of 4.0 or above is generally considered strong. Your Integrated Reasoning (IR) is also scored separately from 1 to 8.

The quantitative and the verbal sections are individually scored on a raw-score scale of 0 to 60, with each raw score assigned a percentile. For example, if you scored a 43 raw score in your math section, that will earn you a 61st percentile, meaning that 61% of all GMAT test takers scored less than you. The two raw scores combined create your overall score on a scale of 200 to 800. Your final overall score will also have a percentile ranking. This final score is extremely important, because the admissions committees compare candidates on that basis.

GMAT Exam will consist of 4 main sections viz. Verbal Ability, Integrated Reasoning, Quantitative Aptitude and Analytical Writing. The details are represented below:

GMAT Test Section	No. of Questions	Duration
Analytical Writing Assessment	1 Topic	30 Minutes
Integrated Reasoning	12 Questions	30 Minutes
Quantitative (Maths)	37 Questions	75 Minutes
Verbal	41 Questions	75 Minutes

Globally, the cost to take GMAT is US $250 or approximately INR 17,000.

GMAT Registration is available throughout the year. Candidates can apply for GMAT at any time of the year as per their convenience. The **GMAT Score Report** valid for five years.

However, candidates are allowed to take GMAT Exam only 5 times a year.

There are certain eligibility criteria to follow to apply for GMAT. A candidate must satisfy certain age criteria and other norms regarding the number of attempts. They are stated below:

- **Nationality:** Applicants belonging to all countries of the world can apply for the test. There is no restriction regarding the nationality of the applicant.
- **Academic Qualification:** The minimum academic qualification for admission is a graduate degree from a recognized institute. All participating institutes will have different academic qualifications.
- **Age Limit:** A candidates applying for GMAT Exam must be 18 years old.
- **Number of Attempts:** Candidates can appear for GMAT Exam only 5 times in a year.
- **Retaking GMAT:** Candidates have to wait for minimum 16 days before taking the test again.
- Candidates have to wait at least five years to take the GMAT Exam again if the previously obtained GMAT score is a perfect score of 800.

Candidates aspiring to take the GMAT Test can register themselves at any time of the year.

The GMAT **Registration** process is accessible in both online and offline modes.

- **The first step is to create an account with GMAC in the official website of GMAT:** Once the account is created the candidates can opt for any of the below mentioned GMAT Registration Processes. The same modes are available for rescheduling or cancelling the GMAT Test:
- **Online on the official website of GMAT:** The candidate can directly go to the official website of GMAT and get themselves registered.
- **Through Phone:** This can be done by calling the GMAT Customer Service in your region. In this case, the candidate might be charged an additional fee of US$10.
- **Through Postal Mail:** If the candidate pays via cheque or money order, this is the only option to register and schedule the GMAT Exam.

To Register:

- Visit the official website of GMAT.
- Click on 'Register' option mentioned in the drop down menu under 'The GMAT Exam'.
- Click on 'Schedule a GMAT Exam'.
- Enter your Registration details and Create GMAT User Account.
- Create GMAT Profile. Provide personal details and academic qualification.

- Next step is choosing "test date and test location".
- Last step is fee Payment. Candidates need to pay (US $ 250).

(3) Common Admission Test (CAT):

Common Admission Test or CAT is a Computer-based entrance exam for admissions into management courses in Indian Institutes of Management (IIMs) and other top B-schools of the country. The regulating body/exam authority is the IIM and every year different IIMs conduct the CAT exam on a rotational basis. Though CAT is considered to be a tough entrance exam, the key to succeeding it is with time management and learning the tricks.

Bachelor's degree or an equivalent qualification (recognized by HRD Ministry, Government Of India) with a minimum of 50% marks or equivalent CGPA. Candidates belonging to SC/ST/PWD categories must have minimum 45% marks or equivalent CGPA.

CAT registration form will be available on the official website. Follow the below steps to register for the CAT exam successfully.

- Register yourself on the official website of CAT.
- On successful registration, candidates will receive an email and SMS containing user ID and Password.
- Use your credentials to log in, and fill the application form.
- Upload your signature, photograph and other necessary documents once you complete the application form.
- You can pay your application fee via various modes of payments – Net Banking/ Credit Card/ Debit Card.
- Application **Fees**
  - General/OBC INR 1800
  - SC/ST/PWD INR 900

CAT exam is a computer-based test with total 100 questions to be completed within 180 minutes. The candidates can view the CAT Exam Pattern for detailed marks distribution and timings. Here is an overview of the exam pattern. Common Admission Test will have 3 sections. The no. of questions has not been mentioned in CAT notification.

Subject Questions Marks Duration

Data Interpretation & Logical Reasoning	32	96	60 minutes
Quantitative Ability	34	102	60 minutes
Verbal Ability & Reading Comprehension	34	102	60 minutes
Total	100	300	180 minutes
Correct Answer: +3 **Marking Scheme** **Incorrect Answer: -1**			

CAT is a 180-minute online exam with no breaks in between. There are two sections: (1) Quantitative Ability & Data Interpretation. (2) Verbal Ability & Logical Reasoning. Each section consists of 50 questions. Each correct answer is awarded 3 marks and each wrong answer carries a penalty of – 1 marks. No marks are awarded for un-attempted questions. The candidates can switch between the two sections and there is no time limit for any section. However, candidates are expected to perform well in both the sections and most of the institutes accepting CAT score for admission have sectional cut-offs in addition to overall cut-off.

PRE FINAL YEAR STUDENTS: If you are in your pre-final year of graduation, this happens to be the first time you are eligible to attempt CAT. You have the least amount of stress on your head and more than ample of time to prepare for the examination.

FINAL YEAR: You are young, less experienced and in turn hungry to learn more. A lot of recruiters may prefer you because of these factors after you have completed your MBA. It is easier to mould you to learn the tricks of the trade. Also, your next best chance at attempting CAT will have to be with about 2 years of working experience.

EXPERIENCED PROFESSIONAL: If you have been stuck at the same level for a while now, with a decent couple of years in your pocket, as mid-level professional you are probably looking to forward your career and are vying for that guaranteed hike in pay check.

(4) Scholastic Aptitude Test (SAT):

SAT is a globally recognized standardized test that is taken for admission at US colleges. SAT provides a yardstick for colleges to compare students for admission to their various programs. Basically, SAT is of two types. They are: (i) SAT Reasoning Test and b) SAT subjects test. Both the SAT test patterns follow different formats to evaluate a candidate's knowledge and hence have different SAT syllabus., the SAT syllabus is also based at the high school level. According to the SAT syllabus, the total duration of the test is 3 hours. However, candidates will be given another 50 minutes for the Essay, which is optional. Students typically take the test during their junior year of high school and may retake it in senior year.

SAT Reasoning Test consists of three sub-sections which are as follows:

(1) **Writing:** This section involves an essay and multiple choice questions to test a candidate's hold over grammar and usage.. The grammar section also involves usage of pronouns, incorrect comparisons, conjunctions, misplaced

modifiers and punctuation. This section is allotted 35 minutes and will have 44 questions.

(2) **Evidence Based Reading and Writing:** The questions asked in this section are based on either short passage reading or long passage reading. It essentially tests a candidate's vocabulary. According to the SAT syllabus 2017, the time allotted to this section is 65 minutes for attempting 52 questions.

(3) **Mathematics:** This section includes questions on arithmetic operations, algebra, geometry, statistics, and probability. Besides, the syllabus includes mean, median and mode, ratios, direct and indirect variation. The candidate can also expect to be asked questions on probability, combination and permutation and patterns and sequences. As per the SAT test pattern, test takers will be given 80 minutes to solve 57 questions.

New SAT Syllabus:

Comparison of the Major Features: Old SAT vs. Redesigned SAT

Category	Old SAT	Redesigned SAT
Total Testing Time* *Redesigned SAT testing time subject to research	3 hours and 45 minutes.	3 hours (plus 50 minutes for the Essay [optional])
Components	Critical Reading Writing Mathematics Essay	Evidence-Based Reading and Writing Reading Test Writing and Language Test Math Essay (optional)

Important Features	Emphasis on general reasoning skills. Emphasis on vocabulary, often in limited contexts. Complex scoring (a point for a correct answer and a deduction for an incorrect answer; blank responses have no impact on scores).	Continued emphasis on reasoning alongside a clearer, stronger focus on the knowledge, skills and understandings most important for college and career readiness and success. Greater emphasis on the meaning of words in extended contexts and on how word choice shapes meaning, tone and impact. Rights-only scoring (a point for a correct answer but no deduction for an incorrect answer; blank responses have no impact on scores)
Essay	Required and given at the beginning of the SAT. 25 minutes to write the essay. Tests writing skill; students take a position on a presented issue.	Optional and given at the end of the SAT; postsecondary institutions determine whether they will require the Essay for admission. 50 minutes to write the essay. Tests reading, analysis and writing skills; students produce a written analysis of a provided source text.
Score Reporting* *Redesigned SAT scores subject to research	Scale ranging from 600 to 2400. Scale ranging from 200 to 800 for Critical Reading; 200 to 800 for Mathematics; 200 to 800 for Writing. Essay results scaled to multiple-choice Writing.	Scale ranging from 400 to 1600. Scale ranging from 200 to 800 for Evidence-Based Reading and Writing; 200 to 800 for Math; 2 to 8 on each of three traits for Essay. Essay results reported separately.
Sub-score Reporting	None	Sub-scores for every test, providing added insights for students, parents, admission officers, educators and counsellors

SAT Subjects Test: This test is based on specific subjects. The candidate may choose his subject of interest from the list given below:

Subjects	Subjects	Subjects	Subjects
Literature	Biology/EM	German	Italian
U.S. History	Chemistry	German with Listening	Latin
World History	Physics	Spanish	Chinese with Listening
Math Level 1	French	Spanish with Listening	Japanese with Listening
Math Level 2	French with Listening	Modern Hebrew	Korean with Listening

SAT Fee:

$52.5 (approx.) plus $42 (Non-U.S. Regional Fee).

For subject tests, an additional $26 as basic subject test fee.

For SAT subject tests, some additional fee might be charged.

SAT can be taken seven times in a year in the US and six times internationally. Candidates can sit for the test in October, November, December, January, March, May and June. The SAT registration can be completed both online and by mail.

(5) Union Public Service Commission, (UPSC):

The Union Public Service Commission (UPSC) is India's central agency authorized to conduct the Civil Services Examination and many other central services.

The Civil Services Examination (CSE) is a nationwide competitive examination in India conducted by the Union Public Service Commission for recruitment to various Civil Services of the

Government of India, including Indian Administrative Service (IAS), Indian Foreign Service (IFS), Indian Police Service (IPS), and Indian Revenue Service (IRS) among others. It is conducted in two phases the Preliminary examination, consisting of two objective-type papers (General Studies and Aptitude Test), and the Main examination, consisting of nine papers of conventional (essay) type followed by the Personality Test (Interview). The entire process from the notification of the Preliminary examination to declaration of the final results takes roughly one year.

Preliminary exam consists of two paper of objective type:

Paper	Subjects	Questions	Total marks	Duration
I	General studies	100	200	2 hours
II	Aptitude skills	80	200	2 hours

SYLLABUS FOR PAPER I:

- Current events of national and international importance.
- History of India and Indian National Movement.
- Indian and World Geography: Physical, Social, Economic Geography of India and the World.
- Indian Polity and Governance: Constitution, Political System, Panchayati Raj, Public Policy, Rights Issues, etc.
- Economic and Social Development: Sustainable Development, Poverty, Inclusion, Demographics, Social Sector initiatives, etc.
- General issues on Environmental Ecology, Bio-diversity and Climate Change – that do not require subject specialization General Science

SYLLABUS FOR PAPER II:

- Comprehension
- Interpersonal skills including communication skills;
- Logical reasoning and analytical ability
- Decision-making and problem solving
- General mental ability
- Basic numeracy (numbers and their relations, orders of magnitude, etc.) (Class X level), Data interpretation (charts, graphs, tables, data sufficiency etc. – Class X level)

UPSC Syllabus for Main Examination:

The IAS main exam consists of 9 papers out of which 2 papers of 300 marks are qualifying in nature and marks of these both paper is not counted in final total:

- Any Indian language
- English

Rest of seven papers can be written in any of the languages mentioned as in the Eighth Schedule of the Constitution or in English.

Below given the remaining seven papers:

- **Paper – I:** Essay – 250 Marks.
- **Paper – II:** General Studies-I 250 Marks

  (Indian Heritage and Culture, History and Geography of the World and Society)
- **Paper – III:** General Studies -II: 250 Marks.

  (Governance, Constitution, Polity, Social Justice and International relations).

- **Paper – IV:** General Studies -III 250 Marks.
  (Technology, Economic Development, Bio-diversity, Environment, Security and Disaster Management).
- **Paper – V:** General Studies -IV 250 Marks.
  (Ethics, Integrity and Aptitude).
- **Optional Subject-Paper – VI** – Paper 1 -250 Marks.
- **Optional Subject- Paper – VII** – Paper II -250 Marks.

Civil Services Examination comprises two successive stages namely,

(i) Civil Services **(Preliminary)** Examinations (Objective Type) for the selection of candidates for Main Examination; and

(ii) Civil Services **(Main)** Examination (Written and Interview) for the selection of candidates for the various services and posts.

(a) The Preliminary Examination will consist of two papers of objective type (multiple choice questions) and carry a maximum of 400 marks. This examination is meant to serve as a screening test only and the marks obtained in the Preliminary Examination by the candidates who are declared qualified for admission to the Main Examination will not be counted for determining their final order of merit.

(b) The number of candidates to be admitted to the Main Examination will be about twelve to thirteen times the total approximate number of vacancies to be filled in the year. Only those candidates who are declared by the Commission to have qualified in the Preliminary Examination in a year will be eligible for admission to the Main Examination of that year provided

they are otherwise eligible for admission to the Main Examination. The Main Examination will consist of a written examination and an interview test. The written examination will consist of 9 papers of conventional essay type in the subjects. (Language [both vernacular and English], General studies and Two Optional subjects).

(c) Candidates, who obtain such minimum qualifying marks in the written part of the Main Examination as may be fixed by the Commission at their discretion, shall be summoned by them for an interview for a Personality Test.

(d) However, the papers on Indian Languages and English will be of qualifying nature. The marks obtained in these papers will not be counted for ranking. The number of candidates to be summoned for interview will be about twice the number of vacancies to be filled. The interview will carry 300 marks (with no minimum qualifying marks).

(e) Marks thus obtained by the candidates in the Main Examination (written part as well as interview) would determine their final ranking. Candidates will be allotted to the various Services keeping in view their ranks in the examination and the preferences expressed by them for the various Services and posts.

To be **eligible,** a candidate must attain the age of 21 years and must not be above the age of 30 years on 1st August, of the year in which he write the prelims exam and the upper age limit prescribed above will be relaxable,

(a) Up to a maximum of five years if a candidate belongs to a Scheduled Caste or a Scheduled Tribe.

they are otherwise eligible for admission to the Ma Examination. The Main Examination will consist of a writte examination and an interview test. The written examination wi consist of 9 papers of conventional essay type in the subjects (Language [both vernacular and English], General studies an Two Optional subjects).

(c) Candidates, who obtain such minimum qualifying marks in the written part of the Main Examination as may be fixed by the Commission at their discretion, shall be summoned by them for an interview for a Personality Test.

(d) However, the papers on Indian Languages and English will be of qualifying nature. The marks obtained in these papers will not be counted for ranking. The number of candidates to be summoned for interview will be about twice the number of vacancies to be filled. The interview will carry 300 marks (with no minimum qualifying marks).

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To be **eligible,** a candidate must attain the age of 21 years and must not be above the age of 30 years on 1st August, of the year in which he write the prelims exam and the upper age limit prescribed above will be relaxable,

(a) Up to a maximum of five years if a candidate belongs to a Scheduled Caste or a Scheduled Tribe.

(b) Up to a maximum of three years in the case of candidates belonging to Other Backward Classes who are eligible to avail of reservation applicable to such candidates

(c) Up to a maximum of five years if a candidate had ordinarily been domiciled in the State of Jammu & Kashmir during the period from the 1st January, 1980 to the 31st day of December, 1989.

(d) Up to a maximum of three years in the case of Defence Services personnel disabled in operations during hostilities with any foreign country or in a disturbed area and released as a consequence thereof

(e) Up to a maximum of five years in the case of ex-servicemen including Commissioned Officers and ECOs/SSCOs who have rendered at least five years Military Service.

(f) Up to a maximum of five years in the case of ECOs/SSCOs who have completed an initial period of assignment of five years Military Service as on 1st August, of the year in which you write the prelims exam and whose assignment has been extended beyond five years and in whose case the Ministry of Defence issues a certificate that they can apply for civil employment and that they will be released on three months' notice on selection from the date of receipt of offer of appointment.

(g) Up to a maximum of 10 years in the case of blind, deaf-mute and orthopedically handicapped persons.

FEE structure for the UPSC EXAMINATION is as follows:

- Candidates applying offline (through common application form) are required to pay a fee of Rs. 100/- through a single Central Recruitment Fee Stamp.

- All Female Candidates and candidates belonging to Scheduled Castes/Scheduled Tribes are not required to pay any fee.
- Physically handicapped persons are exempted from the payment of fee provided they are otherwise eligible for appointment to the Posts to be filled on the results of this examination on the basis of the standards of medical fitness for these posts.
- Candidates applying on-line (excepting female/SC/ST/ physically handicapped candidates who are exempted from payment of fees) are required to pay a reduce fee of Rs. 50/. (Rupees fifty only) either by remitting the money in any branch of SBI by cash, or by using net banking facility of SBI or by using visa/master credit/debit card.

UPSC Online **Application Procedure Part 1:**

The step-by-step procedure for UPSC Online Application.

❖ **PAGE ONE:**

Here the system asks for Candidate's Personal Information including 'Name', 'DOB', 'Father's name', 'Mother's name', 'Address' and category, 'Community the candidate belongs to (General, OBC, SC, ST), whether 'Fee Remission' is claimed etc. Instructions are given below each field, which may be read carefully and followed strictly.

Click on "Continue" button at bottom of the page to go to the second page.

❖ **PAGE TWO:**

On this page Information about preferences for "IMA" NA" "AFA" and "OTA "is to be given. The preferences are to be

given using numbers 0/1/2/3/4. You have to enter at least one preference.

Since Female candidates are eligible for OTA only, they should indicate OTA as the only preference. Candidates, who desire to join Air Force Academy, must indicate AFA as first choice. If a candidate does not want to indicate AFA as his preference then he must indicate "o" against it. On this page you are also required to indicate, whether you have or are likely to have NCC "C" certificate and whether you are serving in the armed forces. On this page you are also required to indicate whether you belong to a Sainik School. The response is to be furnished by using "Yes" or "No".

Click on "Continue" button at bottom of the page to go to the fourth page.

- **PAGE THREE:**

Here the system displays all the information provided by the candidate in the application form for verification. 'Update' button is also provided therein at the bottom of the Online Application details to move back and make any correction in the information filled in. The candidates are advised to check the filled in details and satisfy themselves that all information is correctly filled up. No change in information filled in by the candidates would be allowed at any subsequent stage of the examination process.

- **PAGE FOUR:**

Here the system Displays the unique 'Registration ID' along with the essential identification information about the candidate viz. 'Name', 'Father's Name', 'Mother's name', 'DOB',

'Address', E-mail ID etc. opted by the candidate. The candidate is also intimated that he has completed PART-I of the Registration of Online Application procedure. The candidates may however note that Application would be treated as incomplete and rejected unless accompanied with Part-II Registration.

The **Process of UPSC Exam** Registration Comprises Three Steps:

- ✓ Fee Payment
- ✓ Choosing the Examination Centre
- ✓ Uploading Photograph of the candidate
- ✓ Uploading Signature

Candidate has the option to either agree or disagree with the contents of Declaration by clicking on 'I have read Declaration & Agree' or 'I Do Not Agree' buttons. Accepting to agree only will submit the candidate's Online Application.

(6) Staff Selection Commission:

- Staff Selection Commission conducts recruitment to Group C (non-technical) & Group B (non-gazette both technical & non-technical) posts in various departments of the Government of India..

SSC conducts open examinations regularly for the following levels which covers the following posts:

- Graduate Level: Assistants, Auditors/Jr. Accountants/ Upper Division Clerks,
- Divisional Accountants,

- Inspectors of Income Tax/ Central Excise, Sub-Inspectors in Central Police Organizations (CRPF, BSF, CISF, ITBP and SSB),
- CBI, Section Officer (Commercial) and Section Officer (Audit).
- 10 + 2 Level: Stenographer Grade 'C', Stenographer Grade 'D' and Lower Division Clerks.
- Direct interviews are held for some posts which are known as Selection Posts such as Statistical Assistant, Store Keeper, Jr./Sr. Computer Assistant, Information Assistant, etc. Applications for such post are invited through advertisements, as and when such vacancies are reported to the Commission.

SSC Exam Eligibility:

Graduate level:

- Bachelor's degree in any discipline from a recognized university.
- Age Limit- Applicants aged between 18 and 27 years of age are eligible to apply.

10 + 2 level:

- Should have passed 10 + 2 or equivalent or higher examination from a recognized board or university.
- Age Limit Candidates aged between 18 and 27 years of age are eligible to apply.

Age Relaxation is common for both levels:

- SC/ST- 05 years

- OBC-03 years
- PH- 10 years
- PH+OBC- 13 years
- PH+ SC/ST- 15 years

SSC Tier I Exam Pattern:

Subject	Questions	Marks	Time
General Intelligence Reasoning	25	50	60 minutes (Total)
General Awareness	25	50	For VH & Candidates suffering from Cerebral Palsy: **80 minutes**
Quantitative Aptitude	25	50	
English Language	25	50	
TOTAL	**100**	**200**	

Negative Marking: There will be negative marking of 0.5 marks for each wrong answer in the Tier I exam.

SSC Syllabus for Tier II Exam Pattern:

S. No.	Subject	No. of Qs.	Marks	Negative Marking per Qs	Difficulty Level
Paper 1	Quantitative Aptitude	100	200	0.50 marks	10th +12th standard level
Paper 2	English Language	200	200	0.25 marks	10 + 2 level
Paper 3	Statistics	100	200	0.50 marks	Graduation level
Paper 4	Finance & Accounting	40	80	0.50 marks	Graduation level
	Economics & Governance	60 (Total = 100 Qs.)	120 (Total = 200 Marks)		

Some important things that you should know about the SSC CGL Exam:

Paper I & II are compulsory for all the categories of posts while paper III & IV are for some specific post.

- The marks obtained by the candidates in Tier I & Tier II, together, would determine the eligibility of the candidates to appear in Tier III & Tier IV of the CGL exam.
- The final merit of the successful candidates will depend on the total score obtained by them in Tier I, Tier II and Tier III exams.
- **Tier III** paper will comprise questions based on Essay/Passage and Letter/Application writing.
- **Tier IV** exam will be of qualifying nature only.
- Tier-II of the examination consists of 4 papers in total.
- Duration of each paper is 2 hours.

On line application for SSC Exam:

- Online submission of the application may be made at website **www.ssc.nic.in.**
- Instructions are available at the site. Candidate should read the instructions carefully before making any entry or selecting options.
- A page with Registration No. will now be generated. Note down the registration number or take out the print out of the page. Candidates may note that the Registration number given by the Commission and Transaction ID of the Bank should be properly entered in the relevant space. On-line application will be complete only if scanned signature and photo are uploaded as per instructions. Incomplete online application will be rejected summarily.

- The candidates submitting their applications on-Line should pay the requisite fee only through State Bank of India either in the form of challan or through SBI Net Banking/any Credit or Debit Card. Challan form will be generated on-line.
- To pay fee in cash, candidate should take print out of challan generated online after submission of his/her online application form and deposit the requisite fee in any branch of State Bank of India.
- Those who are exempted from payment of fee can skip step 4. Then upload a recently taken scanned photograph in JPG format. Copy of email may be retained to produce before the Regional Office in the event of any discrepancy.
- Request for change/correction in any particulars in the Application Form shall not be entertained under any circumstances.
- Copy of challan through which fee is paid or details of online payment must retained and produced.

Fee Structure:

Candidate may note that only online applications will be accepted at www.ssconline.nic.in. All Women candidates and candidates belonging to Scheduled Caste, Scheduled Tribe, Physically Handicapped, and Ex-Servicemen eligible for reservation are exempted from paying application fee, as per extant government orders.

The candidates who are not exempted from paying examination fee may submit the requisite fee through State Bank of India only either in the form of challan, generated on line, or through SBI Net

anking. Payment can also be made through any Credit or Debit ard. Fee once paid will not be refunded under any circumstance.

7) State Public Service Commission's:

State Public Service Commission like (MPSC) is a Constitutional Body established Under Article 315 of Constitution of India which provides a smooth and efficient functioning of the Government of all states by providing suitable candidates for various Government posts.

Every year, SPSC conducts various types of exams yearly in order to recruit capable candidates for various vacant SPSC Recruitments in different departments. Applicants, who want to apply for group A/B/C posts they can get detailed information about PSC. Aspirants, who've decided to build their career in government sector should acquire more information's.

Eligibility for applying candidates should have a Graduate/Post Graduate Degree or diploma in relevant disciplines from any reputed university or educational board according to the post which one wants to apply for.

Age Limitations for State PSC Exam:

- The common age limit of appliers as per the organization norms should not be below than 18 years and upper age limitation is 33 years as on that date given in official notification.
- Upper age limit will be relaxable for reserved categories (SC/ST/OBC/PH) usually as per PSC's rules and regulations.

SPSC Selection Procedure:

- Selection of the candidates will be decided after their performance in Entrance Exam and then Interview

- SPSCs organize written Test for every state of the country. A the candidates who will be declared qualified for this exam will be called for the interview.

SPSC Exam Application Form Procedure:

- To apply for any post job finders will have to download application form format from the official website of their respective Commissions.
- Dully filled form may be submitted online latest by last date. Offline process to apply is also in circulation.

SPCS Examination is divided into three categories:

- Prelims
- Mains
- Interview.
  - The SPCS Preliminary examination constitute of two question papers.
  - The question paper will be of the objective in nature.
  - There will be negative marking i.e. 1/4th marks will be deducted for every wrong response.

Preliminary Examination:

Name of the Question Paper	Number of questions	Total marks	Total time
CSAT (Civil Services Aptitude Test)	80	200 (2.5 marks for each question)	2 Hours
General Study	100	200 (2 marks for each question)	Hour

SPCS Mains will constitute of 8 question papers.

- The 1st and the 2nd question paper will be of General studies.
- There will be 4 question papers of the two optional subjects which candidates have to choose from the list of subjects given in the official notification.
- Candidates will have to write 3 essays in the question paper of the essay writing.
- There will be the question paper of Hindi language too.
- Candidates need to qualify the question paper of the English language as well.
- All the mains question paper will be descriptive in nature.

Interview:

There is no as such specific pattern and syllabus of the interview. Candidates must be aware of their surroundings, state and should have a good knowledge about contemporary issues. Candidate should be communicative during interview and must keep their views openly before the interview board.

SPCS Admit Card:

- The admit card will be available on the official portal of the commission via online mode.
- Candidates can download the Admit card from the official portal. The admit card will contain all the details about the examination, date, and venue of the examination, the reporting time etc.
- It will be necessary for the applicants to take admit card at the examination venue otherwise you will not be permitted to give the examination.

Result:

- Result of preliminary examination will get disclosed after the commencement of the examination.
- After qualifying the preliminary examination, candidates will be eligible to apply and appear in the SPCS Main examination.
- Candidates will get the final result of the Main examination (written) and interview.
- The result will publish on the official portal of SPSC of the respective states.

For e.g. Maharashtra Public Service Commission (MPSC) Pre Exam candidate's age must be below 19 to 33 years as on 01-04. Relaxations will be extended as per the rules for reserved Category. Application Fee: General Candidates need to pay Rs. 315/- & Rs. 165/- for Reserved Category, Rs. 15/- for Ex- Serviceman, as Application Fee in the form of SBI Challan/Debit card/ Credit card/ Net Banking/ Cash Card. Each state has their own fees structure.

(8) Banking and Insurance Sector Examinations:

The insurance sector is one of the fastest growing economies of our country which brings the dynamic career advancement opportunities. The job profile in this sector involves purchasing and maintaining various financial, administrative and personal services, carrying out work and purchase inquiries, and preparing and scrutinizing the bills for payment, etc.

Bank Exams Syllabus:

Written tests in bank exams generally ask questions to test the General Aptitude of the candidates. In Prelims, 100 questions are asked from three different sections:

- ✓ Quantitative Aptitude (35 Questions),
- ✓ Reasoning Ability (35 Questions),
- ✓ English Language (30).
- ✓ In the Mains exams, 200 questions are asked covering Quantitative Aptitude, Reasoning Ability, English Language, General Awareness and Basic Computer Knowledge.

Syllabus of all above sections is given below:

Quantitative Aptitude:

Number Systems, Ratio & Proportion, Percentage & Averages, Profit & Loss, Mixtures & Alligations, Simple Interest & Compound Interest, Surds & Indices, Time & Distance, Mensuration – Cylinder, Cone, Sphere, Sequence & Series, Permutation Combination & Probability, Quadratic Equations, Data Interpretation.

Reasoning Ability:

Sitting Arrangements, Tabulation, Logical Reasoning, Syllogism, Input Output, Coding Decoding, Alphanumeric Series, Ranking/Direction/Alphabet Test, Data Sufficiency, Coded Inequalities, Non-Verbal Reasoning.

English Language:

Reading Comprehension, Close Test, Error Spotting, Sentence Correction, Para Jumbles, Vocabulary, Multiple Meaning Words, Paragraph Completion and New Pattern Questions of various types.

Computers:

Number System, History of computers, Hardware, Software, Database (Introduction), Communication (Basic Introduction), Networking (Lan, Wan), Internet (Concept, History, Working

Environment, Application), Security Tools, Virus, Hacker, MS Windows & MS Office, Logic Gates.

Current Affairs:

Banks in NEWS, Economy based current affairs, Business NEWS, Agreements, New Appointments, Visits, Government Schemes, Awards and Honors, Summits, Committees, National and International, Obituaries, Reports and Indexes, Books and Authors, Defense, Sports.

Minimum Criteria for Bank Jobs:

Candidate must be either a:

- citizen of India or
- subject of Nepal or
- subject of Bhutan or
- Tibetan Refugee who came over to India before 1st January 1962 with intention of permanently settling in India or
- person of Indian origin who migrate from Uganda, Pakistan, Burma, Sri Lanka, East African countries of Kenya, United Republic of Tanzania (formerly Tanganyika and Zanzibar), Zambia, Malawi, Zaire, Ethiopia and Vietnam with intention of permanently settling in India.
- Candidate belonging to categories (II), (III), (IV) & (V) above shall be a person in whose favour a certificate of eligibility has been issued by Government of India.

Eligibility criteria for Bank posts:

All banks have their own eligibility criteria so; Candidates should ensure that they fulfil the specified eligibility criteria before applying for the Written Examination.

Candidates, who have desire to apply for Clerk posts, should have Degree in any relevant discipline from a repudiated University.

Proficiency in local language is compulsory for the Applicants who ant to apply for Office Assistants Post.

rocedure for applying online:

1) Candidates are first required to go to the IBPS's website **www.ibps.in** and click on the Home Page to open the link and then click on the option.

2) Candidates will have to click on "CLICK HERE FOR NEW REGISTRATION" to register their application by entering their basic information in the online application form. After that a provisional registration number and password will be generated by the system and displayed on the screen.

(3) Candidates are required to upload their photograph and signature as per the specifications given in the Guidelines for Scanning and Upload of Photograph and Signature.

(4) Candidates are advised to carefully fill in the online application themselves as no change in any of the data filled in the online application will be possible/entertained. Prior to submission of the online application candidates are advised to use the "SAVE AND NEXT" facility to verify the details in the online application form and modify the same if required. No change is permitted after clicking on FINAL.

(5) Visually Impaired candidates are responsible for carefully verifying/ getting the details filled in, in the online application form properly verified and ensuring that the same are correct prior to submission as no change is possible after submission.

(6) The candidate should indicate in the online application the state to which he/she opts for provisional allotment on selection. The option once exercised will be irrevocable.

Fees Structure:

Application Fees/Intimation Charges Payable (Online payment), on selected dates, as follows:

(1) Rs. 100/- for SC/ST/PWD candidate

(2) Rs. 600 /- for all others.

(9) National and State Eligibility Tests (NET/SET):

NET is National Eligibility Test, whereas SET is State Eligibility Test. The main difference between these two are; **NET** is conducted for lectureship posts in any university or college in the country. Also candidates wishing to take up research field need to appear for this exam.

Conducted by the University Grants Commission (UGC), National Eligibility Test (NET) is the national level entrance examination for postgraduate candidates. The Examination is conducted in Humanities (including languages), Social Sciences, Forensic Science, Environmental Sciences, Computer Science and Applications and Electronic Science.

Candidates who qualify for the award of Junior Research Fellowship are eligible to pursue research in the subject of their post-graduation or in a related subject. The universities, institutions, IITs and other national organizations may select the JRF awardees for whole time research work in accordance with the procedure prescribed by them. The award of JRF will depend on the performance of the candidate in NET. The qualified candidates will

also be eligible for Lectureship. However, the candidates qualifying exclusively for Lectureship will not be considered for award of JRF.

(1) Mode of Exam:

- UGC NET is conducted through Online mode.
- Each candidate will be allocated a desktop with a pre-installed software especially created for the examination.
- Make sure to check that the system and the mouse is working properly before the exam commences.

(2) Nature of Questions:

- The questions in both the papers will be objective in nature.
- This means, all the questions in UGC NET will be of Multiple Choice type (MCQs).
- The question will have 4 options, candidates must select the most appropriate answer.

(3) Total Number of Questions:

- UGC NET have a total of 150 multiple choice questions.
- Paper 1 will have 50 questions and Paper 2 will have 100 questions. Total duration is 3 hours.
- There is no restriction to move to and fro among the papers.
- All the questions are compulsory to attempt.

(4) UGC NET Marking Scheme:

- A uniform marking scheme is followed in the exam i.e. for both Paper 1 and 2, each correct answer will fetch you 2 marks.

- As per the revised exam pattern of UGC NET exam, there is no negative marking for incorrect answer.
- Hence, instead of skipping a question, one can use their calculated guess and mark the answer.

(5) UGC NET eligibility criteria, candidates should have the required qualifications:

- ❖ For General Category Candidates – 55% aggregate in Master's Degree or Equivalent Degree.
- ❖ For ST/SC/OBC/PWD Candidates – 50% aggregate in Master's Degree.
- ❖ The Ph.D. degree holders whose Master's level examination had been completed by 19th September, 1991 (irrespective of the date of declaration of result) shall be eligible for a relaxation of 5% in aggregate marks (i.e., from 55% to 50%) for appearing in NET.

A final year student of Master's Degree or passed out student whose result is still awaited is also eligible for UGC NET Exam.

(6) UGC NET 2019 Syllabus (Updated)

Syllabus for UGC NET 2019 Paper 1 and Paper 2 varies and are designed to test different skills of the candidates. A brief about both the papers are:

- UGC NET Paper 1 Syllabus tests teaching and reasoning ability, research aptitude, comprehension, divergent thinking and general awareness of the candidate.
- UGC NET Paper 2 Syllabus is based on the subject chosen by the candidate. It tests candidate's indepth knowledge and expertise in the respective subject.

SLET Examination:

In accordance with the guidelines of the U.G.C., the Government of Maharashtra, Higher & Technical Education & Employment Department by their Resolution No. UGC-1391/2066/VS-4 , dt: July, 14, 1994 have nominated the University of Pune as the State Agency for conducting the State Eligibility Test (SET) . The U.G.C. has accredited the SET examinations being held by the University of Pune as the State Agency of the Government of Maharashtra and at the Government of Goa.

SET (General) consists of four sections with a total of 150 questions. The duration of the test is 150 minutes. There is no negative marking.

Section	No. of Questions	Total Marks
General English	40	40
Quantitative Ability	40	40
General Awareness	40	40
Analytical and Logical Reasoning	30	30
Total	**150**	**150**

There are 150 questions divided among these 4 sections in SET. While reasoning section has 30 questions, the other 3 sections have 40 questions each.

1 mark is allotted for each correct answer. There is no Negative marking in SET exam.

SECTION - 1: General English:

This section includes questions on Verbal Ability and Reading comprehension passages. Vocabulary and Grammar based questions are an important part of General English sections like:

Reading Comprehension,

Para-jumble,

Idioms and Phrases,

Fill in the Blanks,

Para Completion,

Antonym, Synonym, Confusing Words.

SECTION - 2: Quantitative:

Number System,

Percentage,

Simple Interest and Compound Interest,

Profit, Loss and Distance,

Average,

Time and Work,

Ratio, Proportion and Variation,

Time, Speed and Distance,

Probability,

Equations,

Logarithm,

Geometry.

SECTION - 3: General Awareness:

General Awareness with 40 questions, is an equally important section in SET which includes:

Current national Affairs,

Current International Affairs,

Static GK questions like Currencies, capitals, Geography, Books & Authors, based questions,

Appointments, Agreements, questions based on constitution,

Questions based on Economics, finance,

SECTION - 4: Analytical & Logical Reasoning:

Reasoning section has 30 questions but is considered as very important section in SET exam. Following are the major topics to be prepared for SET:

Sequencing and Arrangement,

Team Selection,

Fact Inference Judgment,

Passage Conclusion,

Analogy,

Statement Argument,

Assertions reasons.

Educational qualification:

- Post-Graduation/Master's Degree with minimum 55% marks for General and 50% for SC/ST are Eligible.
- Students who have appeared or will be appearing at the qualifying PG (final year) Examination or whose result is still awaited or candidates whose qualifying exams have been delayed, may also apply for this SLET Entrance Exam.

Age limit:

Candidate must not be more than 28 years of age.

Examination fees for SET Examination is 1500/.

The website to log in is http://www.set-test.org/

The duration of the Examination is 2 hours and 30 minutes.

PART B:

Soft Skills required for Competitive Examinations:

Information on areas tested: Quantitative Ability, Data Interpretation, Verbal Ability and Logical Reasoning, Creativity and Lateral Thinking:

(i) **Quantitative Aptitude For Competitive Examination:** The quantitative aptitude test measures the numerical ability and accuracy in mathematical calculations. The questions range from purely numeric calculations to problems of arithmetic reasoning, Compound and simple Interests, Percentage, Logarithms, Volumes and Areas, Discounts and quantitative analysis. Quantitative aptitude must be prepared if you are aiming for a job through a competitive Examination. Candidates preparing for following competitive exams can utilize this section to improve their skills.

- Bank Competitive Exam
- MPSC Competitive Exams
- SSC Competitive Exams
- L.I.C/G.I.C Competitive Exams
- Railway Competitive Exam
- University Grants Commission (UGC)
- NET/SET Competitive Exam
- Common Aptitude Test (CAT)
- Career Aptitude Test (IT Companies)

Q. 1: Mr. Amit Roy, the renowned author, recently got his new novel released. To his utter dismay he found that for the 850

pages on an average there were 3 mistakes every page. While, in the first 350 pages there were only 550 mistakes, they seemed to increase for the latter pages. Find the average number of mistakes per page for the remaining pages.

(a) 6

(b) 4

(c) 2

(d) Can't be determined

(e) None of these

Q.2: A and B have some guavas divided between themselves. A says to B "If I give you 20% of the guavas I have, I will still have 20 more guavas than you have." To this, B says "If you give me guavas equal to 75% of what I have now, I will have 30 more guavas than you have." What is the total number of guavas that they have?

(a) 180

(b) 236

(c) 336

(d) 288

(e) None of these

Q.3: Find the wrong number which does not follow the specific pattern in each of the given number series?

(i) 6, 7, 9, 13, 26, 37, 69

(a) 7

(b) 26

(c) 69

(d) 37

(e) 9

(ii) 1, 3, 10, 36, 152, 760, 4632

(a) 3

(b) 36

(c) 4632

(d) 760

(e) 152

(ii) **Data Interpretation:** The objective of data interpretation is to assess whether a student can understand tables and charts and answer some questions based on them. This act of organizing and interpreting data to get meaningful information under a given set of conditions is Data Interpretation. All business consists of processing data and making decisions. It checks the ability of a person to calculate fast and comprehend relevant information which is essential for potential managers.

Normally D.I. combined with Logical Reasoning forms a separate section. The number of questions vary from 25-40. It has an overall weightage of 20% and is given in combination with Logical Reasoning or Data Sufficiency.

Data Interpretation problems judge the person's ability to analyse data quickly. Graphs, charts and tables are given and a

person has to find out the relevant data which is required in a question and then do a calculation on it. It becomes imperative to read the problem along with the options. The approach to DI problems lies in understanding:

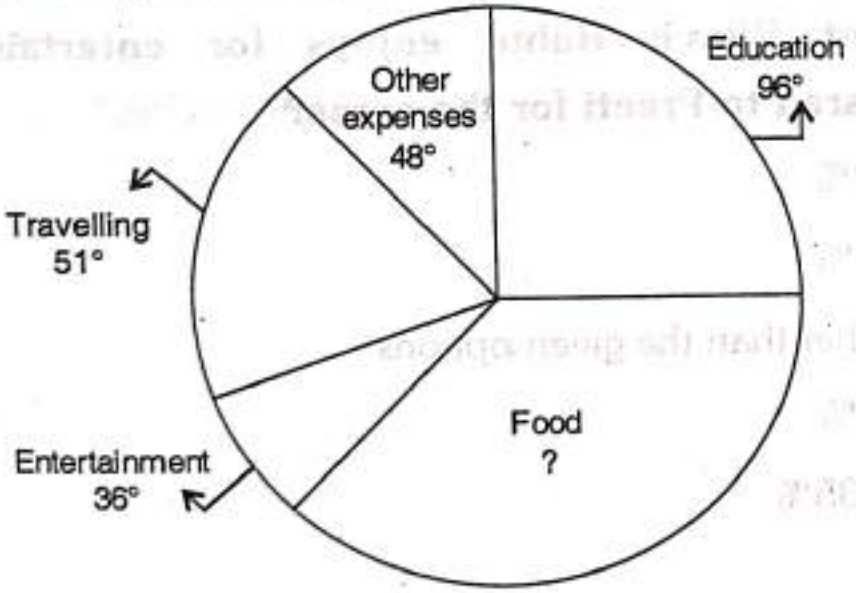
(1) "What is given" – See the given data carefully to see the time period, the units and the trend. Each data tells a story. See whether it is a rising or declining trend.

(2) "What is asked" – Look at the questions and locate which is the relevant data that is required for the question.

(3) "What are the approximations and calculations required" – Sometimes an increase between two years may be asked, or the percentage growth, or a ratio. Look at the desired values and do quick calculations to get the answer. Choices are a big help in selecting answers.

Q.1: Study the following the pie-chart and table carefully to answer the questions given below:

The following pie-chart shows the distribution of the monthly family budget of a person.



The following table shows the further distribution (in percent) of the above-mentioned items among the five family members' i.e. P (the person himself), W (his wife), Rahul (son), Rohit (son), and Preeti (his daughter). His monthly family budget is Rs. 1,20,000.

	Education	Food	Entertainment	Travelling	Other expenses
P	10	30	10	40	20
W	15	25	30	10	25
Rahul	40	20	20	25	20
Rohit	25	15	25	10	10
Preeti	10	10	15	15	25

(1) What is the average expenses of P?

(1) Rs. 5620

(2) Other than the given options

(3) Rs. 5640

(4) Rs. 5460

(5) Rs. 5480

(2) What is the approximate percentage increase in the amount Which Rahul enjoys for entertainment as compared to Preeti for the same?

(1) 33%

(2) 31%

(3) Other than the given options

(4) 37%

(5) 5. 35%

(3) **The average expenses of Rohit is approximately what percent of the average expenses of W (Wife)?**

(1) 76.4%

(2) 81.5%

(3) 79.5%

(4) 83.5%

(5) Other than the given options

(4) **Find the difference (in percentage of the budget) between the average expenses of Education and the average expenses on Entertainment of the couple?**

(1) 1.3%

(2) 0.9%

(3) 2%

(4) Other than the given options

(5) 2.5%

(5) **The total amount spent by Rahul on Travelling and Food is approximately what percent of the total amount spent by Preeti on Education and Food?**

(1) Other than the given options

(2) 168%

(3) 171%

(4) 175%

(5) 174%

(iii) **Verbal Ability:** Verbal ability is a skill to understand and correspond with words. It is the ability to analyse the information we have and solve the problem with the help of reasoning. We

use this skill in day to day life without our knowledge. It is one of the most essential skills required in this corporate world. Most of the interviews and competitive exams consider this subject a priority. In basic terms it is comprehension skills. In this course, we address the topics which will help you master verbal ability required for the competitive exams.

Q.1: Find the correctly spelt words:

- Efficient
- Treatmeant
- Beterment
- Employd

Q.2: In the following the questions choose the word which best expresses the meaning of the given word.

BRIEF:

(A) Limited

(B) Small

(C) Little

(D) Short

VENT:

(A) Opening

(B) Stodge

(C) End

(D) Past tense of go

(iv) Logical Reasoning: The logical reasoning, also known as critical thinking or analytic reasoning, involves one's ability to isolate and identify the various components of any given

argument. A person with a higher logical reasoning ability is better equipped to work in positions that require quick decision making.

Logical Reasoning consists of question types which test both your mathematical and logical abilities. These questions are there is most of the examinations, and present an interesting challenge to students. Imagine a case or situation, A group of people are sitting around a table, you are given a few clues with respect to what these people are wearing, what is their age and what is their height. Some of the data is missing, and some of the names are missing too. Now you need to figure out the puzzle, identify everyone and possibly their seat, all with the help of the clues provided.

Logical Reasoning Ability Test:

Q.1: Choose the correct options

(1) Konark: Madurai: Khajuraho

- They are famous for their temples
- They were totally destroyed by invaders
- They have some of the very famous forts
- They were capitals of Hindu Kings in ancient times

(2) Scale: Fish

- Lady: Dress
- Tree: Leaves
- Bird: Feather
- Skin: Man
- Bear: Fur

(3) Arc: Circle: Line: ?

- Point
- Rectangle
- Ellipse
- Sphere
- Geometry

(v) Creativity and Lateral Thinking: Lateral Thinking is a deliberate, systematic creative-thinking process that deliberately looks at challenges from completely different angles. By introducing specific, unconventional thinking techniques, lateral thinking enables thinkers to find novel solutions that would otherwise remain uncovered. Lateral thinking focuses on what could be rather than what is possible and centres around four directives:

- Recognize the dominant ideas that polarize the perception of a problem.
- Search for different ways of looking at things.
- Relax rigid control of thinking.
- Use chance to encourage other ideas

Seven techniques or mental tools help carry out these directives with the goal of unpredictable ideas, which may turn out to be novel and useful solutions to the problem being addressed.

- **Alternatives:** Use concepts to breed new ideas.
- **Focus:** Sharpen or change your focus to improve your creative efforts.

- **Challenge:** Break free from the limits of accepted ways of operating.
- **Random Entry:** Use unconnected input to open new lines of thinking.
- **Provocation:** Move from a provocative statement to useful ideas.
- **Harvesting:** Select the best of early ideas and shape them into useable approaches.
- **Treatment of Ideas:** Develop ideas and shape them to fit an organization or situation.

(1) A woman steps to the edge of a very high building, & as people look on, she leaps off, & falls several stories. The woman is not injured. Why?

Hint: The woman did not fall on cushions or any other type of softened surface, & was not wearing a parachute.

(2) A man leaves home one night & drives over a mile to meet a friend for a drink. When the man arrives home, the clock shows a time only five minutes later than when he left. How is this possible?

Hint: There is nothing wrong with the clock, & it consistently shows the correct time.

(3) A boy enters a room that is filled with adults. He is told by a man that the court has found that his parents have neglected & abused him, & he will be placed in foster care. However, the boy sleeps in the same house with his parents that night & several nights after that. No further mention is made of his move to foster care. Why?

(4) Three men enter a room filled with gas wearing gas masks. The men voluntarily remove their masks, & begin coughing heavily because of the gas. They do not put their masks back on. The men are not suicidal, so why did they do this?

Motivation: Concept, Theories and Types of Motivation:

Motivation is defined as the processes that account for an individual's intensity, direction, and persistence of effort toward achieving a goal. Motivation there are 3 components of motivation:

- **Intensity** = how hard an employee tries
- **Direction** = should benefit the organization (i.e. quality of effort counts!)
- **Persistence** = how long can an employee maintain his/her effort?

Motivation is not directly observable, it is personal. However the process is common and it is goal directed. Direction might point the way, but intensity is what establishes momentum, and persistence determines how far the change is carried. This concept does not give any reasons for motivation.

Furthermore, there are 2 **types of factors that influence motivation:**

- **Intrinsic:** self-generated factors (responsibility, freedom to act, scope to use and develop skills and abilities, interesting and challenging work, opportunities for advancement) they have a deeper and longer-term effect.
- **Extrinsic:** what is done for people to motivate them (rewards, promotion, punishment) they have an immediate and powerful effect, but won't necessarily last long.

Intrinsic motivation comes from a person's internal desire to do something. Reasons may be that a particular activity gives him or her pleasure, helps to develop a particular skill of seems to be the right thing to do in moral/ethical terms. Extrinsic motivation is generated by external factors that are less related to the particular task.

Early Theories of Motivation:

(a) Most influential is the **Needs (content) Theory:**

- All Needs theories focus on specific needs people want to satisfy. There are several theories that explain motivation as a result of these needs.
- The underlying concept is the belief that an unsatisfied need creates tension and a state of disequilibrium. To restore balance, a goal is identified that will satisfy the need and a behaviour pathway to this goal is selected.
- All behaviour is motivated by unsatisfied needs.
- People will be better motivated if their work experience satisfies their needs and wants.
- Needs theories distinguish between primary needs, such as food, sleep and other biological needs, and secondary psychological needs that are learned and vary by culture and by individual.

Maslow's hierarchy of needs:

- If a lower need is satisfied, it no longer motivates behaviour; the next higher one becomes dominant. (Deficit principle)
- The five needs exist in a hierarchy. Higher needs only become important when lower needs are satisfied
- Higher-order needs provide greater motivation.

- Different people may have different priorities.

The theory helps managers to identify which particular needs are relevant for employees and thus to determine appropriate motivators.

Maslow's Hierarchy of Needs

(b) Alderfer's ERG Theory:

Is based on Maslow's Hierarchy of needs; recategorizes Maslow's categories of needs into three simpler and broader groups:

- **Existence needs:** need for material and energy exchange; basic physiological and safety needs
- **Relatedness needs**: transactions with human environment, process of sharing or mutuality; need for interpersonal relationships and attention; is about equivalent to Maslow's social needs and part of the esteem needs
- **Growth needs**: people make creative or productive efforts for themselves; need for personal growth and self-development; part of Maslow's esteem needs and self-fulfilment needs

On contrast to Maslow, here more than one level of needs can be relevant at the same time. There is no hierarchy; people may for instance work to fulfil their personal growth needs, whereas not all relatedness needs are fulfilled.

c) **Theory X and Theory Y:**

Douglas McGregor proposed two distinct views of human beings: one basically negative, labelled Theory X, and the other basically positive, labelled Theory Y.

Theory X:

The assumption that employees dislike work, are lazy, dislike responsibility, and must be coerced to perform. (Lower order needs dominate).

Theory Y:

The assumption that employees like work, are creative, seek responsibility, and can exercise self-direction.

McGregor believed Theory Y assumptions were more valid than Theory X and proposed such ideas as participative decision making, responsible and challenging jobs, and good group relations as approaches that would maximize an employee's motivation.

(d) **Two-Factor Theory:**

- Intrinsic factors are related to job satisfaction, while extrinsic factors are related to job dissatisfaction.
- Hygiene factors = when these are adequate, workers "feel OK" (i.e. they are NOT dissatisfied). Examples include quality of supervision, company policies and administration.

- Motivators = examines factors contributing to job satisfaction. Thus there are factors which lead to job satisfaction and things that don't (i.e. notice there is a difference between "non-satisfying" and "dissatisfying factors").

Contemporary Theories of Motivation:

(a) McClelland's needs:

Based on studies of managers. 3 most important needs have been identified:

- **achievement:** need for competitive success measured against a personal standard of excellence.
- **affiliation:** need for warm, friendly relationships with others, interpersonal relationships.
- **power:** need to control and influence others.

The hierarchy of these three groups of needs may differ from individual to individual. Hence, there are different motivators depending on a person's high-priority needs.

(b) Herzberg's two-factor model:

There are some factors that result in satisfaction and some factors that just prevent dissatisfaction. According to Herzberg, the opposite of Satisfaction is No Satisfaction and the opposite of Dissatisfaction is No Dissatisfaction.

- **Motivators:** factors that really motivate people, also called satisfiers, provide intrinsic motivation.

  Examples for Motivators: recognition, growth and career development opportunities, responsibility, autonomy, self-fulfilment.

- **Hygiene factors:** dissatisfiers; their absence would demotivate people, but their presence not necessarily improves motivation; essentially describe the environment, little effect on positive job attitudes.

  Examples for Hygiene factors: salary, work conditions, relationships with superiors and peers, company policy.

c) **Process cognitive theory:**

- Emphasis on psychological processes that effect motivation and on basic needs
- Concerned with people's perceptions and the way they interpret and understand it
- People will be highly motivated if they can control the means to attain their goals.

(d) **Vroom's Expectancy theory:**

Value, instrumentality (belief that if we do one thing it will lead to another), expectancy (probability that action or effort will lead to an outcome).

Strength of expectations may be based on past experiences.

Motivation is only likely when a clearly perceived relationship exists between performance and an outcome that is seen as a means of satisfying needs.

Porter and Lawler developed this theory into a model suggesting that there are two factors determining the effort people put into their jobs:

- Value of rewards to individuals in so far as they satisfy their needs

- Probability that rewards depend on effort, as perceived by individuals, their expectation about relationships between effort and reward

Two additional variables:

- Ability individual characteristics and skills
- Role perceptions what he wants to do or thinks he is required to do, good if they correspond with the viewpoint of the organisation

(e) Latham & Locke's Goal theory:

Motivation and performance are higher when individuals are set specific goals.

Goals have to be difficult but accepted.

Feedback on performance allows the individual to track how well he or she is doing in relation to the goal.

Participation in goal setting is important goals need to be agreed.

As long as they are accepted demanding goals lead to better performance than easy goals.

(f) Brehm's Reactance theory:

Individuals are not passive receivers but responders.

They seek to reduce uncertainty by seeking control about factors influencing rewards.

Management initiatives about motivation will only work if they make sense to the people in terms of their own values and orientation.

There are **four important elements** to reactance theory: perceived freedom, threat to freedom, reactance, and restoration

of freedom. Freedom is not an abstract consideration, but rather a feeling associated with real behaviours, including actions, emotions, and attitudes.

(g) **Adams Equity theory:**

- Perceptions people have about how they are being treated as compared with others
- Involves feelings and perceptions, is always a comparative process
- People will work better if they are treated equitably
- Two forms of equity:

  Distributive: fairness people feel they are rewarded in accordance with their contribution and in comparison with others

  Procedural: perceptions of employees about fairness of company procedures
- We hope/expect that the inputs we give into our job equal the outputs we get

(h) **Other theories:**

Behavioural theory (Skinner): behaviour is learnt from experience, learning takes place mainly through reinforcement.

Social learning theory (Bandura) significance of reinforcement as a determinant of future behaviour, importance of internal psychological factors, esp. Expectancies.

Attribution theory (Guest) explanation of performance after we have invested considerable effort and motivation in a task; 4 types of explanations: ability, effort, task difficulty, luck; motivation depends on the factor used to explain success or failure.

Role Modeling: (Dagmar Recklies) people can be motivated if they have the chance to model their own behaviour on a 'role model', i.e. someone who's working or leadership style serves as an inspiration and a positive example.

To conclude the basic motivation theories that have been developed to explain motivated behaviour. Several theories view motivated behaviour as attempts to satisfy needs. Based on this approach, managers would benefit from understanding what people need so that the actions of employees can be understood and managed. Other theories explain motivated behaviour using the cognitive processes of employees. Employees respond to unfairness in their environment, they learn from the consequences of their actions and repeat the behaviours that lead to positive results, and they are motivated to exert effort if they see their actions will lead to outcomes that would get them desired rewards. None of these theories are complete on their own, but each theory provides us with a framework we can use to analyse, interpret, and manage employee behaviours in the workplace.

(iii) Goal Setting: Types of Goals, SMART Goals, Stephen Covey's concept of human endowment.

Goal setting is defined as the act of selecting a target or objective you wish to achieve. Goal setting is not only about choosing the rewards you want to enjoy, but also the costs you are willing to pay. For example, Imagine a small row boat. Your goals are like the rudder on the boat. They set the direction and determine where you go. If you commit to one goal, then the rudder stays put and you continue moving forward. If you flip-

flop between goals, then the rudder moves all around and it is easy to find yourself rowing in circles.

Setting goals is how you grow and achieve success. The process of creating goals is influenced by many internal and external factors. To understand the basics of developing effective, you need to be familiar with the key factors that shape effective goal setting. This will help you address the limitations and challenges that can occur during goal development:

- **Feasibility:** A goal that is too easy to reach can give you a premature sense of accomplishment, while a goal that is too difficult to attain can cause an unnecessary drain on resources. The feasibility of a goal has a significant effect on its benefit to your organization.
- **Time Frame:** The methods you will use to attain a specific goal will depend on the time you give yourself to complete it. A goal with a more extended time frame may be more costly but may ultimately yield greater returns than one with an immediate deadline.
- **Resources:** Your resources are a significant factor in the goals you set. If you lack the effort to accomplish a goal, then you may have to change your methods to achieve. Balancing resources is a critical part of creating business plans and setting and prioritizing goals.
- **Results:** The results of previous plans are instrumental in setting goals. Develop a performance-measurement system that will help you determine the success or failure of your plan. Learn from the failures and catalogue the successes to help develop more effective approaches in the future.

Types of Goals:

Goals that can happen quickly are called short-term goals. Goals that take a long time to achieve are called long-term goals. A short-term goal is something you want to do in the near future. The near future can mean today, this week, this month, or even this year. A short-term goal is something you want to accomplish soon.

A short term goal is a goal you can achieve in 12 months or less. Examples include:

- Take a class
- Buy a new television
- Write my resume

A long-term goal is something you want to do further in the future. Long-term goals require time and planning. They are not something you can do this week or even this year. Long-term goals usually take 12 months or more to achieve.

Here are examples of goals that can take several years to achieve:

- Graduate from college
- Save for retirement
- Have my own business

Tips for Setting Long-Term Goals:

- Work backwards. Think about what you want to achieve then plan steps going back to what you can do right now.
- Create a picture of where you want to be in life 10 years from now.
- Think about what you need to do in five years, in one year, and in six months to get to your long-term goal.

- Write down what you need to do each month to achieve your goals.
- After each monthly goal is achieved, look at your goals and adjust them as needed.

SMART Goals:

First consider what you want to achieve, and then commit to it. Set SMART (specific, measureable, attainable, relevant and time-bound) goals that motivate you and write them down to make them feel tangible. Then plan the steps you must take to realize your goal, and cross off each one as you work through them.

SMART usually stands for:

S – Specific (or Significant).

M – Measurable (or Meaningful).

A – Attainable (or Action-Oriented).

R – Relevant (or Rewarding).

T – Time-bound (or Trackable).

- ✓ **Specific:** What is the specific goal you're trying to accomplish? And be specific!
- ✓ **Measurable:** How can you measure your success? Think about how you will know when you've accomplished the goal.
- ✓ **Actionable:** What are the actionable steps (aka objectives) needed to achieve the goal? Break the goal into smaller steps. List every step.
- ✓ **Responsible:** Who are the people that must support this goal? If you need the support of your manager, co-workers, friends, or family, make note of it here.

✓ **Time-bound:** When do you want to achieve the goal?

The following broad guidelines will help you to set effective, achievable goals:

- State each goal as a positive statement – Express your goals positively "Execute this technique well" is a much better goal than "Don't make this stupid mistake."
- Be precise: Set precise goals, putting in dates, times and amounts so that you can measure achievement. If you do this, you'll know exactly when you have achieved the goal, and can take complete satisfaction from having achieved it.
- Set priorities: When you have several goals, give each a priority. This helps you to avoid feeling overwhelmed by having too many goals, and helps to direct your attention to the most important ones.
- Write goals down: This crystallizes them and gives them more force.
- Keep operational goals small: Keep the low-level goals that you're working towards small and achievable. If a goal is too large, then it can seem that you are not making progress towards it. Keeping goals small and incremental gives more opportunities for reward.
- Set performance goals, not outcome goals: You should take care to set goals over which you have as much control as possible. It can be quite dispiriting to fail to achieve a personal goal for reasons beyond your control.

If you base your goals on personal performance, then you can keep control over the achievement of your goals, and draw satisfaction from them.

Set realistic goals: It's important to set goals that you can achieve. All sorts of people (for example, employers, parents, media, or society) can set unrealistic goals for you. They will often do this in ignorance of your own desires and ambitions.

It's also possible to set goals that are too difficult because you might not appreciate either the obstacles in the way, or understand quite how much skill you need to develop to achieve a particular level of performance.

Achieving Goals:

- When you've achieved a goal, take the time to enjoy the satisfaction of having done so. Absorb the implications of the goal achievement, and observe the progress that you've made towards other goals.
- If the goal was a significant one, reward yourself appropriately. All of this helps you build the self-confidence you deserve.
- With the experience of having achieved this goal, review the rest of your goal plans:
  - **(a)** If you achieved the goal too easily, make your next goal harder.
  - **(b)** If the goal took a dispiriting length of time to achieve, make the next goal a little easier.
  - **(c)** If you learned something that would lead you to change other goals, do so.

Stephen Covey's concept of human endowment:

Stephen Covey considered **primary human endowments** as important aspect of life like (1) self-awareness or self-knowledge; (2)

imagination, (3) conscience; and (4) will power which has to be developed to reach various goals in life fruitfully. These endowments are as follows:

- **Self-Awareness:** Associated with **Habit 1:** Be Proactive. This is the endowment of self-knowledge or self-awareness - an ability to choose your responsibility. Ineffective people who transfer responsibility by blaming themselves or others or their environment are not responsible for results. "Quality begins with me." And I need to make my own decisions based on carefully selected principles and values. Proactivity cultivates this freedom. It subordinates your feelings to your values. You accept your feelings.
- **Conscience:** Associated with **Habit 2:** Begin with the End in Mind is the endowment of imagination and conscience. If you are the programmer, write the program. Decide what you're going to do with the time, talent, and tools you have to work with.

  Only people have the capability to imagine a new course of action and pursue it conscientiously. Why conscience? Because to be highly effective, your conscience must monitor all that you imagine, envision, and engineer.
- **Imagination:** Now, imagine, yourself responding to that reality in a mature, wise, self-controlled manner. See the effect that has on someone else. You just used two unique human capacities: imagination and conscience. You didn't rely on memory; if you had relied on memory or history, you might have lost your cool, made judgments of other people's condition.

- **Willpower:** Associated with **Habit 3:** Put First Things First is the endowment of willpower. Avoiding responsibility and taking the easy way out, exercising little initiative or willpower is not what is expected. These are unique human endowments that animals don't possess. The emphasis here is on preparation, relationships, and results, rather than reacting to crises with a focus on "things" and "time.

The **secondary endowments** are: (4) an abundance mentality; (5) courage and consideration; and (6) creativity; (7) self-renewal etc. The exercise of primary human endowments empowers you to use the secondary endowments more effectively. They are as follows:

- **Abundance Mentality:** Associated with **Habit 4:** Think Win-Win is the endowment of an abundance mentality because your security comes from principles. Everything is seen through principles. If your son, your husband, your friend, or your boss makes a mistake, you don't become accusatory, you look with compassion. Your security does not come from them. It comes from within you. You're principle-centred.
- **Courage/Consideration:** Associated with **Habit 5:** Seek First to Understand, Then to Be Understood is the endowment of courage balanced with consideration. What happens when you truly listen to another person. The ability to make yourself understood requires courage and consideration.
- **Creativity:** Associated with **Habit 6:** Synergize is the endowment of creativity - the creation of something by yourself. Through two respectful minds communicating, producing solutions that are far better than what either originally proposed. Always be loyal to those who are absent if you want to retain

those who are present. And if you have problems, you go directly to the person to resolve them.

For example, during times of death, divorce, and remarriages, there are typically many strained feelings in families over the settlements. Family members who feel slighted or cheated often say nasty things about other family members. Think how much pain and anguish might be spared if members of the family would adhere to two basic principles: (1) People and relationships in our family are more important than things and (2) When we have any difficulty or difference, we will go directly to the person. We are responsible for our own attitudes and behaviours, and we can choose our responses to this circumstance. With courage and consideration, we will communicate openly with each other and try to create win-win solutions.

- **Self-Renewal:** Associated with **Habit 7:** Sharpen the Saw is the unique endowment of continuous improvement or self-renewal. Continuous renewal, improvement, innovation, and refinement create an upward spiral of continuous improvement. Organizations that sharpen the saw are always looking for ways to improve.

Time Management: Effective Strategies for Time Management:

"Time management" is the process of organizing and planning how to divide your time between specific activities. Good time management enables you to work smarter – not harder – so that you get things done in less time, even when time is tight and pressures are

igh. Failing to manage your time damages your effectiveness and auses stress.

It seems that there is never enough time in the day. But, since we all get the same 24 hours, why is it that some people achieve so much more with their time than others? The answer lies in good time management.

Benefits of Time management" is enormous.

- Greater productivity and efficiency.
- A better professional reputation.
- Less stress.
- Increased opportunities for advancement.
- Greater opportunities to achieve important life and career goals.

Failing to manage your time effectively can have some very **undesirable consequences:**

- Missed deadlines.
- Inefficient work flow.
- Poor work quality.
- A poor professional reputation and a stalled career.
- Higher stress levels.

Spending a little time learning about time-management techniques will have huge benefits now and throughout your career.

The following **strategies** will help you get the right things done in less time.

(1) **Start your day with a clear focus:** The first work-related activity of your day should be to determine what you want to

achieve that day and what you absolutely must accomplish. Come clear on this purpose before you check your email and start responding to queries and resolve issues. Setting a clear focus for your day might require as little as five minutes, but can save you several hours of wasted time and effort.

(2) **Have a dynamic task list.** Capture the tasks and activities you must do on a list and update it regularly during the day. Revisit this list frequently and add new items as soon as they appear. Make sure your list gives you a quick overview of everything that's urgent and important, and remember to include strategic and relationship-building activities as well as operational tasks.

(3) **Focus on high-value activities:** Before you start something new, identify the activity that would have the most positive effect on your project, your team and your client if you were to deal with it right now. Resist the temptation to clear smaller, unimportant items first. Start with what is most important.

(4) **Minimize interruptions:** The more uninterrupted time you get during the day to work on important tasks, the more effective you'll be. Identify the activities that tend to disrupt your work, and find a solution. For example, avoid checking emails and answering the phone when you're in the middle of something important. Once you have broken your flow, it can be difficult to re-establish it. Instead, discipline yourself to work on a task single-mindedly until it's complete.

(5) **Stop procrastinating:** If you have difficulties staying focused or tend to procrastinate, you may benefit from creating an external commitment for (deadline) yourself. For instance,

schedule a meeting in two days' time where you'll be presenting your work and by which time your actions will have to be completed. It's also very effective to complete the most unpleasant tasks early in the day, and to allow yourself small rewards once you've completed them.

(6) **Limit multi-tasking:** Many of us multi-task and believe we're effective when we do so; but evidence suggests that we can't effectively focus on more than one thing at a time. In order to stop multi-tasking, try these tips: Plan your day in blocks and set specific time aside for meetings, returning calls and for doing detailed planning and analysis work at your desk. Whenever you find yourself multi-tasking, stop and sit quietly for a minute.

(7) **Review your day:** Spend 5-10 minutes reviewing your task list every day before you leave the office. Give yourself a pat on the back if you achieved what you wanted. If you think your day's effort fell short, decide what you'll do differently tomorrow in order to accomplish what you need to. Leave the office in high spirits determined to pick up the thread the next day.

Here are some time management tips **for students:**

(1) **Eliminate distractions:** Get rid of anything that distracts you and allows you to procrastinate from your work. While you are studying or writing, turn off your phone's ringtones and vibrations and put it in a drawer where you won't be tempted to answer calls and messages. Allow yourself to check your phone only once per hour. Get off Facebook, Messenger, YouTube and other distractions. Save them for when you are relaxing.

(2) **Be focused at the task at hand:** Have you ever been so focused and devoted to what you are doing that time seems to

have flown by? This mental state is called 'flow' when you are completely immersed and involved in an activity. Flow actually makes you feel energized and motivated and increases enjoyment of the activity (not to mention being super-productive). To achieve flow, find a challenge, develop your skills, eliminate distractions, set aside enough time, set clear goals and focus completely on the task at hand.

(3) **Use a calendar:** A calendar is a great way to plan your day. It'll be an easier way to schedule your appointments and remember your obligations. It can also help you to study in blocks and devote time to different subjects. Set up a calendar on your phone or computer and ensure you stick to it. Factor in extra time in case an activity takes longer than expected.

(4) **Use a checklist:** A checklist is a great way to ensure you stay on task, by listing your tasks and checking them off one by one once completed. It also gives you a sense of accomplishment to tick off tasks when completed.

(5) **Get organized:** Once you have your calendar and checklist set up, you should be well on your way to being better organized. Being organized will save you a lot of time and allow you to allocate and manage your time better. Set up simple systems, such as document filing.

(6) **Schedule rewards:** You need to treat yourself when you do the right thing. Take a few minutes out of every hour to take a break and do something you enjoy, like go for a walk or watch some TV. The break will also allow your brain to relax and be more productive when you return. However, whatever you do,

make sure you don't overindulge until you have completed your tasks.

(7) **Get a good night's sleep:** A good night's sleep is essential to make sure your body and mind is rested and fresh for the next day. It can be hard to concentrate if you didn't get 7 to 8 hours of sleep in the night before. Pulling an all-nighter studying is less productive then consistent study. Manage your time better by including sleep in the schedule.

Writing Skills: Paragraph Writing, Report Writing, Filing an application under the RTI Act, Consumer Grievance Letter:

(A) **Paragraph Writing:** A paragraph is a group of sentences organized around a central topic. In fact, the main rule of paragraph writing is to focus on one idea. A solid written paragraph takes its readers on a clear path, without detours. A basic paragraph structure usually consists of five sentences: the topic sentence, three supporting sentences, and a concluding sentence. But the secrets to paragraph writing lay in four essential elements, which when used correctly, can make a paragraph into a great paragraph.

- **Element 1:** Unity: Unity in a paragraph begins with the topic sentence. Every paragraph has one single, controlling idea that is expressed in its topic sentence, which is typically the first sentence of the paragraph. A paragraph is unified around this main idea, with the supporting sentences providing detail and discussion. In order to write a good

topic sentence, think about your theme and all the points you want to make.

- **Element 2:** Order: Order refers to the way you organize your supporting sentences. Whether you choose chronological order, order of importance, or another logical presentation of detail. In a well-ordered paragraph, the reader follows along easily, aided by the pattern you've established. Order helps the reader grasp your meaning and avoid confusion.
- **Element 3:** Coherence: Coherence is the quality that makes your writing understandable. Sentences within a paragraph need to connect to each other and work together as a whole.
- **Element 4:** Completeness: Completeness means a paragraph is well-developed. If all sentences clearly and sufficiently support the main idea, then your paragraph is complete. If there are not enough sentences or enough information to prove your idea, then the paragraph is incomplete. The concluding sentence or last sentence of the paragraph should summarize your main idea by reinforcing your topic sentence.

Sample Literary Paragraph:

Susan Sanders did not like the rain. Whenever it rained, dark clouds would cover the sky and block out the sun, making the entire day seem dreary and gray. If it rained on a chilly day, then the day seemed even colder and more miserable than before. Moreover,

regardless of the temperature, rain meant that Susan's hair would get frizzy and messed up no matter how much time she spent on it. Even a few raindrops were enough to undo an entire morning's worth of styling. As far as Susan was concerned, rain was certainly not her friend.

(B) **Report Writing:** Unlike an essay, a report discusses a topic in a structured, easy-to-follow format. Reports are divided into sections with headings and subheadings. Reports can be academic, technical or business related, and feature recommendations for specific actions. Reports are written to present facts about a situation, project or process and will define and analyse the issue.

Preparation and Planning:

- ✓ First, you should take some time to prepare and plan for your report.
- ✓ Before you start writing, identify the audience.
- ✓ Your report should be written and tailored to the readers' needs and expectations.
- ✓ When planning, ask yourself several questions to better understand the goal of the report.
- ✓ Some questions to consider include:-
  - Who are the readers?
  - What is the purpose of the report and why is it needed?
  - What important information has to be in the report?

Once you identify the basics of your report, you can begin to collect supporting information, then sort and evaluate that information. The next step is to organize your information and begin putting it together in an outline. With proper planning, it will be easier to write your report and stay organized.

Formatting the Report:

- **Title Section:** If the report is short, the front cover can include any information that you feel is necessary including the author(s) and the date prepared. In a longer report, you may want to include a table of contents and a definition of terms.
- **Summary:** The summary consists of the major points, conclusions, and recommendations. It needs to be short as it is a general overview of the report. Some people will read the summary and only skim the report, so make sure you include all of the relevant information. It would be best to write this when the report is finished so you will include everything, even points that might be added at the last minute.
- **Introduction:** The first page of the report needs to have an introduction. Here you will explain the problem and inform the reader why the report is being made. You need to give a definition of terms if you did not include these in the title section, and explain how the details of the report are arranged.

- **Body:** This is the main section of the report. The previous sections needed to be written in plain English, but this section can include technical terms or jargon from your industry. There should be several sections, each clearly labelled with a subtitle. Information in a report is usually arranged in order of importance with the most important information coming first. If you wish, a "Discussion" section can be included at the end of the main body to go over your findings and their significance.
- **Conclusion:** This is where everything comes together. Keep this section free of jargon as many people will just read the summary and conclusion.
- Recommendations: This is where you discuss any actions that need to be taken. In plain English, explain your recommendations, putting them in order of priority.
- **Appendices:** This includes information that the experts in the field will read. It has all the technical details that support your conclusions.

Presentation and Style:

- You will want to present your report in a simple and concise style that is easy to read and navigate.
- Readers want to be able to look through a report and get to the information they need as quickly as possible.
- There are simple formatting styles that can be used throughout your report that will make it easy to read and look organized and presentable. For example:

(a) **Font:** Use just one font in your report. An easy-to-read font such as Arial or Times New Roman is best for reports.

(b) **Lists:** Use lists whenever possible to break information into easy-to-understand points. Lists can either be numbered or bulleted.

(c) **Headings and subheadings:** You can use headings and subheadings throughout your report to identify the various topics and break the text into manageable chunks.

There are also some **writing** styles to consider:

(1) Keep it simple. Do not try to impress, rather try to communicate. Keep sentences short and to the point. Do not go into a lot of details unless it is needed. Make sure every word needs to be there, that it contributes to the purpose of the report.

(2) Use an active voice rather than passive where possible. Active voice makes the writing move smoothly and easily. It also uses fewer words than the passive voice and gives impact to the writing by emphasizing the person or thing responsible for an action

(3) Good grammar and punctuation are also important. Read the report aloud and have someone proofread it for you. Remember that the computer cannot catch all the mistakes. A sample report is provided below:

Antarctica:

Antarctica is the coldest, windiest, highest and driest continent in the world. It is situated at and around the South Pole.

Most of Antarctica is covered in very thick ice and snow. In fact, the ice covering Antarctica makes up nearly 70% of the world's fresh water.

The average rainfall on Antarctica is lower than in many desert areas in the world. By that standard, it could be said that Antarctica is the largest desert in the world.

For obvious reasons, Antarctica is mostly uninhabited, apart from staff working at research stations. No land vertebrates live on Antarctica, but a handful of insects and worms have been found. Penguins, seabirds, seals, whales and dolphins inhabit the waters and shores.

Antarctica is like no other continent in the world. Its extremes make it one of the most spectacular and beautiful places on Earth.

Filing an application under the RTI Act:

The Right to Information Act was established to make the government accountable for its work by empowering citizens to demand information regarding its activities. This act applies to both the Central and the State Governments of India except Jammu and Kashmir, which has its own RTI Act.

Citizens can exercise their right to information by filing an application with a Central Public Information Officer (CPIO). All the

administrative levels of the government will have a CPIO who will give the required information to people who file an application or a query under the RTI Act.

As an applicant, you should know that there is no particular format required. Your application can even be on simple plain paper. Applicants however need to ensure that their contact details including name and correspondence address appear on the application.

How to **file a RTI application:**

Step 1: Writing an application specifying the particulars of the information sought.

Step 2: Submitting the evidence of payment of application fee along with the application.

Step 3: Sending the application to the concerned Public Information Officer /Assistant Public Information Officer.

The essential requirements of an application filed under the RTI Act are:

(a) The applicant should be a citizen of India.

(b) The application should contain the particulars of information sought.

(c) The evidence of payment of application fee should be enclosed.

(d) The address of the applicant should be available for sending a reply.

Fee on initial application:

- Demand draft, banker's cheque or cash with subsequent receipt of Rs. 10.
- Rs. 2 per page printed, copied or created in A4 or A3 size.
- Cost of the page or paper.
- Rs. 50 per disc if information is given in CD form.
- Cost or actual price of sample or models requested under the RTI Act.

Fees for inspection of records:

- First hour is free after which there is a fee of Rs. 5 per hour:

Information sought under the RTI 2005 will be supplied within a time period of 30 days. The RTI Act 2005 guide also mentions that if you as an applicant have given your application to an Assistant CPIO or the wrong public authority, 5 days will be added to the generally prescribed time frame.

The RTI Act 2005 has set forth guidelines and procedures for applicants who have not been given the information they seek in time or are not satisfied with the information provided to them. Here is an overview of the **appeals procedure:**

- As an applicant, you should file an appeal with the relevant first appellate authority within 30 days of the date that was the last day of the expiry of the 30 day time period to supply information. [Please refer the timeline chart above]
- Your appeal will be reviewed and disposed within 30 days of receipt, or 45 days in 'exceptional cases'.

- As an applicant, if your appeal is not disposed or you are still left unsatisfied, you can file a second appeal to Central Information Commission. This appeal must be done within 90 days from the date that was the last day of the 30 or 45 day time period of the first appeal.

Consumer Grievance Letter:

A consumer complaint letter is written to an external agency like a Consumer Complaint Forum which redresses grievances of the public. The letter should specify the cause for your grievance, when it occurred, name the organization which you feel is responsible for the same and explain the circumstance or event which has caused you dissatisfaction.

Complaint Letter Format:

- Start by mentioning whom you want to lodge a complaint against, specify reasons for the same.
- Furnish details about item/service procured date and expenditure incurred.
- Briefly explain the problem you are facing with respect to item purchased or service taken.
- Mention the documents you are enclosing to prove your allegations.
- End by requesting the forum to intervene and grant you justice.

Consumer Complaint Letter sample below:

From

_____ (your name)

_____

_____ (your address)

To

_____ (name of recipient)

_____ (designation)

_____ (name of organization)

_____ (address)

_____

_____

Date _____ (date of writing letter)

Dear Sir/Madam,

I want to lodge a complaint against ....(mention organization's name) for ...(mention reason for the complaint).

I ....(furnish details about item procured/service) and paid an amount of ...(mention amount paid) on ...(mention date of procurement).

(briefly explain the problem you are facing with respect to item purchased or service taken).

I have written umpteen mails to concerned authorities, but with no response. I am enclosing ...(mention documents you are enclosing as proof for your allegation).

I request your forum to intervene and get me justice at the earliest.

Thanking You.

_____ (your name)

Questions

(1) Write a detailed note on GRE Examination.

(2) Explain the basic details of exams such as GMAT and CAT, conducted for entry into professional courses. ***(April 18)***

(3) Discuss examinations – GRE, CAT and GMAT – conducted for entry into professional courses. ***(Oct. 18)***

(4) Discuss the format of any three competitive exams conducted for entry into jobs. ***(April 19)***

(5) Explain the syllabus, exam pattern, eligibility criteria, fees and registration process of UPSC examinations.

(6) Briefly describe the exam pattern of NET/SET.

(7) Explain in detail Maslow's Theory of Motivation. ***(April 18)***

(8) Discuss any three different theories of motivation. ***(April 19)***

(9) Describe the importance of SMART Goals.

(10) How can you strategize time management for achieving your goal?

(11) Define time management and write a note on effective strategies for time management. ***(Oct. 18)***

(12) Give the Theory of Steven Covey's 'Human Endowments' in brief.

(13) How can you write a good Report?

(14) Give the format of writing a consumer grievance letter.

(15) **Explain/Describe in brief the following:**

- **(a)** Scholastic Aptitude Test (SAT). ***(Oct. 18)***
- **(b)** Verbal Ability. ***(April 19)***
- **(c)** Logical reasoning. ***(Oct. 18)***
- **(d)** Lateral thinking. ***(April 18, 19)***
- **(e)** SMART Goals.
- **(f)** Time management. ***(April 18)***

Projects Work

(I) Projects/Assignments should be drawn for the component on Internal Assessment from the topics in Module 1 to Module 4.

(II) Students should be given a list of possible topics - at least 3 from each Module at the beginning of the semester.

(III) The Project/Assignment can take the form of Street-Plays / Power-Point Presentations / Poster Exhibitions and similar other modes of presentation appropriate to the topic.

(Iv) Students can work in groups of not more than 8 per topic.

(v) Students must submit a hard / soft copy of the Project / Assignment before appearing for the semester end examination.

Project report can be prepared on the following topics:

- Consumer Movements.
- Laws to protect Consumer's Rights.
- Right to Information Act 2005.
- Landmark cases for PIL
- Approach to Ecofeminism
- Human Rights Principles.
- Polluter Pays Principle.
- Uses of Laser Technology.
- Importance of GIS mapping
- Advantages and Disadvantages of Genetic Engineering.
- Misuses of Technology.
- Importance of Competitive Examinations.
- Competitive Examinations related to government jobs.
- SMART Goal setting.
- Time Management Strategies.
- Filing application under RTI Act.
- Types of Motivation and its impact on life.

OUR PUBLICATIONS FOR S. Y. B. COM. (SEMESTER - III AND IV)

BUSINESS ECONOMICS
Rajam Saraswathy

MANAGEMENT PRODUCTION FINANCE
Kale: Ahmed

ADVERTISING
Kale: Ahmed

BUSINESS LAW
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COM
Kale: Ahmed

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