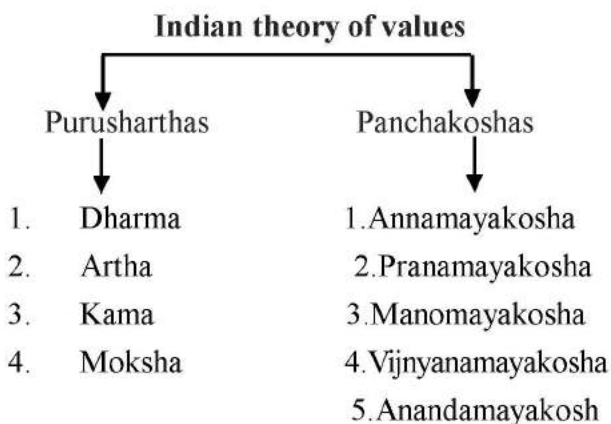


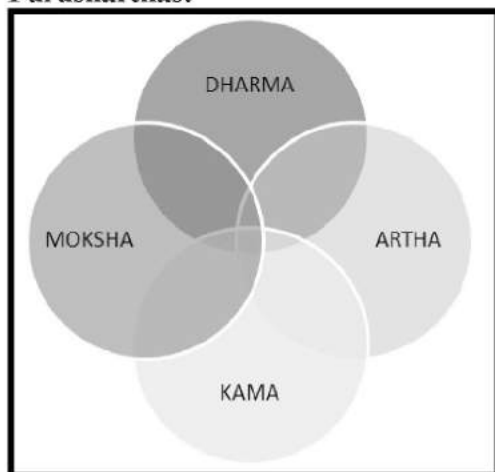
9.3- Indian theory of values.

(Purushartha and Panchakosh Theory)

Values are socially accepted aspirations and objectives. They stand for ideals men live for. They are the guiding principles of life. Values differ from person to person and country to country. India has its unique and great values which the whole universe accepts. Indian theory of values is unique and has become the guiding principles to everybody's life. The basic life principles of an individual according to Indian theory of values are '**Purusharthas**' and '**Panchakoshas**.'



Purusharthas:



The theory of Purushartha is concerned with understanding the conduct of affairs of an individual in relation to family and society. The four Purusharthas are,

- | | |
|--|--------------------------------------|
| 1. Dharma
3. Kama and
Dharma: | 2. Artha
4. Moksha. |
|--|--------------------------------------|

The term 'Dharma' stands for moral law in society and is the basis of values. It is a regulative principle with bearing on duties and rights.

The concept of Dharma and its application to the various aspects of life is of fundamental importance in

Hinduism. Dharma comes first in the four Purusharthas. It is base for the other three Purusharthas. The term Dharma has a very wide and comprehensive meaning in Sanskrit.

The term "**Dharma**" is derived from the Sanskrit root 'Dhr' which means 'To support', or 'To sustain'. The most general meaning of the word Dharma is 'that which supports and sustains. Gradually it came to acquire several senses such as – ordinance, usage, duty, right, justice, morality, virtue, religion, good works, function or characteristic. However, the sense of 'Duties

and Responsibilities based on some Fundamental Moral Virtues' become most widely accepted meaning to the word Dharma. The sources of Dharma are Vedas and Smritis.

The concept of Dharma has a very wide meaning and is understood by different thinkers and by different shastras in a different way.

According to '**Meemamsadhsrhana**' 'Dharma is the ultimate and great principle of morals.'

In '**Brihadaranyaka Upanishad**' it is seen as equal to satya (truth). The great economist Koutilya says that the whole world is controlled by the universal truth i.e. 'Dharma'.

In the '**Ayodhyakanda of Ramayana**' meaning of Dharma is observed as below.

"Dharmadarthaha Prabhavate Dhar martha prabhavate sukham"

"Dharmena labhate Sarvam Dharm saramidah Jagat"

This means "we get money from Dharma, happiness from Dharma. Our every aspiration (expectation) is fulfilled by Dharma. This world stands on the basis of Dharma."

Manu in his Manusmriti recognizes ten characteristic features of Dharma such as, Courage, forgiveness, eradication of bad things, away from stealing, cleanliness, control of sense organs, attaining knowledge, (intelligence), innocence, truth and non- violence.

Dharma is also seen as duty and responsibility. In this sense there is General Dharma, Raja dharma, streedharma, dampatya dharma, Ashram dharma Guru Dharma Apad dharma etc.

Dharma is an ultimate moral principle which protects us. "If we protect Dharma, Dharma will protect us." i.e. "Dharmo Rakshati, Rakshsitaha".

Hence Dharma is an ultimate and great eternal value which everybody should understand and follow in our life. Life should start on the basis of Dharma.

Artha:

The second purushartha is artha. the term Artha symbolizes 'worldly pleasure' or 'prosperity'. It also means money in its narrow sense. Man needs money in order to fulfill his needs and wants. Hence he is involved in one or other way to earn money. His wants has become unlimited. In order to fulfill these wants he is doing undo things. This is against to dharma or Shastra.

This purushartha, 'Artha' says that money is of course essential to man. But it should be earned in a rightful way. An individual must work hard and earn money with his own efforts. It should be in a honest way. The earned money must be utilized for good purpose. The extra money is saved and used for poor in the society.

Kama:

'Kama' refers to desires of which sex drive is important. It helps to propagate the human species. But in its wider sense, 'Kama' is not confined to sex only. There are three human desires. They are mental, sexual, and aesthetic. All these three desires are essential. Man has to enjoy all these desires. All these desires are fulfilled within certain limits. They are to be according to Dharmashastra and according to social laws.

Moksha:

The fourth and the last purushartha is Moksha. Moksha stands for salvation it is the ultimate end of human life. It liberates the person from worldly ties and leads to bliss signifying the merger of atman with Brahman. By attaining the knowledge of Brahma, an individual attains mukti from the worldly sufferings. To attain Moksha there are four yoga's. They are 1. Raja yoga 2. Jnyanayoga, 3. Karmayoga and 4. Bhaktiyoga.

In Hindu Dharshan. An individual can follow any of these yoga's and can attain Moksha.

During the Brahmacharya ashram dharma is learnt. Artha and Kama are important in Grihastha Ashram. In the ultimate Vanaprastha ashram worldly pleasures are avoided and steps are taken to attain moksha. Purushartha has moral and ethical values of Hinduism.

Pancha Kosha Theory

(The five Treasures or Cells.)

Pancha means five and kosha means sheath or shell.

The pancha kosha theory provides an overall outlook of the holistic view.

According to this theory, the body is an extension of the mind, and the mind is made of pure bliss.

Although the body and external universe are looked upon as independent and separate, there is a connection between the body and the universe. This is explained in the pancha kosha theory. This theory also forms the basis of the tridosha theory.

Pancha means five and kosha means 'sheath', 'shell', envelope 'case' screen or treasure.
Pancha kosha.

1) Annamaya kosha :-

This is the sheath of the physical self, named from the fact that it is nourished by food. Living through this layer man identifies himself with a mass of skin, flesh, fat, bones, and filth, while the man of discrimination knows his own self, the only reality that there is, as distinct from the body.

2) Pranamaya kosha: Pranamaya means composed of prana, the vital principle, the force that vitalizes and holds together the body and the mind. It pervades the whole organism, its one physical manifestation is the breath. As long as this vital principle exists in the organisms, life continues. Coupled with the five organs of action it forms the vital sheath. In the Vivekachudamani it is a modification of vayu or air; it enters into and comes out of the body.

3) Manomaya Kosha: Manomaya means composed of manas or mind. The mind (manas) along with the five sensory organs is said to constitute the manomaya Kosha. The manomaya Kosha or "mind-sheath" is said more truly to approximate to personhood than Annamaya Kosha and Pranamaya Kosha. It is the cause of diversity, of I and mine. Sankara likens it to clouds that are brought in by the wind and again driven away by the same agency. Similarly, man's bondage is caused by the mind, and liberation, too, is caused by that alone.

4) **Vijnanamaya kosha:** Vijnanamaya means composed of vijnana, or intellect, the faculty which discriminates, determines or wills. Chattampi Swamikal defines vijnanamaya as the combination of intellect and the five sense organs. It is the sheath composed of more intellection, associated with the organs of perception. Sankara holds that the buddhi, with its modifications and the organs of knowledge, form the cause of man's transmigration. This knowledge sheath, which seems to be followed by a reflection of the power of the cit, is a modification of prakrti. It is endowed with the function of knowledge and identifies itself with the body, organs etc.

This knowledge sheath cannot be the supreme self for the following reasons;

It is subject to change.

It is insentient.

It is a limited thing.

It is not constantly present.

5) **Anandamaya kosha:** Anandamaya means composed of ananda, or bliss. In the Upanishads the sheath is known also as the causal body. In deep sleep, when the mind and senses cease functioning, it still stands between the finite world and the self. Anandamaya, or that which is composed of supreme bliss, is regarded as the innermost of all. The bliss sheath normally has its fullest play during deep sleep: while in the dreaming and wakeful states, it has only a partial manifestation. The blissful sheath (Anandamaya Kosha) is a reflection of the Atman which is bliss absolute.

9.4 - Role of Education in inculcating values among individuals.

The aim of education is to help in the all-round development of personality of the child. Education has three modes to provide education. They are formal, informal and non formal. Along with these there is mass media has also unique role to play in giving education. Today mass-media have also a very vital role to play in giving education to the mass. Values are inculcated in the individual through all these agencies of education.

Formal agencies like Schools and colleges are more responsible to inculcate values in children.

“Value Education is the part and parcel of our education. It should not be considered as separate and it should be included in our general education.”

- Kothari Commission Report

The national policy on education -1986 also recommends value education and says that the main aim of education is to cultivate human values.

Role of Formal agencies:

Schools and colleges as formal agencies can organize the following programs to inculcate values among our children.

1. Morning assembly is held before starting of classes and students are told regarding the significance of values.
2. Compulsory subject on value education is introduced in the syllabus.

3. Redesigning the curriculum to give importance to value based education.
4. Developing aesthetic values in children through co-curricular activities like art, literature drawing, music and painting etc.
5. Bring about the significance of values by celebration of birthdays of great personalities who lived for values in their life.
6. Celebration of National and International days
7. Books exhibition are conducted where books on value education are exhibited.
8. Value oriented projects taken by students in their practical works.
9. Organizing co-curricular activities based on value oriented activities.
10. Effective methods of teaching are to be adopted by teachers to inculcate values.
11. Students are made to Visit to Hospitals. Destitute homes, deaf and blind schools, remand homes and certified schools so that they can mingle with all sorts of students who need sympathy. Such programs will certainly help our students to develop values like tolerance, sympathy, nonviolence and love.
12. Role of the teachers is of immense importance. A real teacher is he who teaches on value based teaching. 'As is the teacher so is the child'. Being a role model he should cultivate values in him and through his effective teaching, cultivate values among children.

Role of Informal agencies:

Family and society as informal agencies have a great role to play in inculcating values in children. Parents and elder members of the family are the responsible persons. They should be role models to children and teach values in them directly, indirectly and incidentally.

Role of nonformal agencies:

Open schools and open universities also have unique role to play. By constructing curriculum which is based on values they can inculcate values in the learners.

Role of mass media:

Mass-media like television, radio, cinema and internet now-a-days have significant role in inculcating values in the individuals through variety of programs. They can make individuals to understand the importance of values.

Activity

A discussion or essay on need and necessity of value based education-classification of values, Indian theories of human values-Role of education in inculcating human values among students by inviting resource persons/collection of text material from internet and reference books.

Exercise Questions**I Answer the following questions in a sentence each**

1. What is value?
2. What is self-esteem?
3. Write the meaning of discipline.
4. What is promptness?
5. Write the meaning of democracy.
6. What is secularism?
7. What is the meaning of non-violence?
8. What does scientific temper mean?
9. Write the meaning of non-violence.
10. What is the meaning of secularism ?
11. Write the etymological meaning of Dharma.
12. What is industriousness?
13. Write the meaning of tolerance.
14. What is the meaning of Kama?
15. Write the meaning of Dharma
16. What is the meaning of Artha?

III Answer the following questions in not more than a page each

1. Write the concept of value.
2. Write the meaning of individual and social values.
3. Write the importance of self- esteem.
4. What is the importance of discipline?
5. Mention the uses of industriousness.
6. Write the importance of tolerance as a value.
7. Name the purusharthas.
8. What is the concept of Dharma?
9. Write the uses of scientific temper.
10. What is the concept of secularism as a value?

III Answer the following questions in not more than a page each

1. Write the importance of values.
2. Write a note on moral and spiritual values.
3. Briefly explain simple living and industriousness as values.
4. Briefly explain tolerance and non violence as values.
5. What are individual values? Explain briefly any one of them.

6. What are social values? Explain any one of them.
7. Briefly explain purusharthas..
8. Briefly explain the democratic values.
9. Explain briefly the Panchakosh Siddhantha
10. Briefly explain promptness and discipline as values.

IV Answer the following questions in not more than two pages each

1. Write the concept of values. Bring out the importance of values in human life.
2. Explain purusharthas and pachakoshas.
3. What are individual values? Explain any two of them.
4. What are social values? Explain any two of them.
5. What is the role of education in inculcating values among individuals?

Unit 10

Environmental Education

- 10.1 Meaning and importance of environment
- 10.2 Types of environment - biotic and abiotic (social-economical and educational)
- 10.3 Meaning and importance of environmental education
- 10.4 Environmental degradation :Meaning- - Factors leading to environmental degradation - Socio -economic and cultural factors.
- 10.5 Conservation of natural resources -Management of natural resources to meet human needs. - Role of 4R's (Reduce-Reuse Refuse and Recycle-Eco - Friendly lifestyle)
- 10.6 Role of field trips, nature walk, nature game and eco clubs in Environmental Education

Objectives :

At the end of the instruction of this unit, students will,

- Explain the meaning of environment and its types
- Explain the importance of environment and significance of environmental education
- Recognize the socio economic and cultural factors leading to environmental degradation
- Exchange their ideas regarding the protection of national natural resources.
- Develop positive attitudes towards natural resources and develop leadership towards the management of it.
- Motivate to organize field trips, eco clubs, nature walk and nature game.
- Employ the role of 4R's i.e. reduce, reuse, refuse and recycle to overcome the problem of environmental degradation.



UNIT - 10

Environmental Education



The environment is a globe concept today. It is the some total of all the physical, Chemical, Biological, Economic and Social factors influencing and interacting with organisms. In short it is our surrounding. It is a very wide term which includes both biotic and A-biotic environment. A-biotic environment includes social, economical and educational environment.

Environment is wide term which includes non living things like air, water, river, lakes, seas, oceans, mountains, deserts etc., and living beings like plants and animals.

All living organisms including man depend on the environment for their existence. Man cannot live and develop without physical environment which includes air, water, soil, river, ocean and atmosphere etc., Man being intelligent, has been utilizing resources of physical environment to the maximum extent in order to meet his needs. He has been using the natural resources to such an extent that it has resulted in serious environmental degradation.

Today there is great need of protecting the environment because all living organisms depend on it for their life. We say, “**Dharmo rakshati rakshitaha**”, it means that if we protect Dharma, we will be protected by Dharma. In the same way, “**Vruksho rakshati rakshitaha**”, it means that if we protect environment, we will be protected by the environment. Hence awareness of protecting environment is of utmost importance today. Education is a powerful media of creating this awareness. So the study of environmental education is the need of hour.

10.1 Meaning and Importance of Environment

Meaning of environment :

Environment is everything that surrounds us. It is the aggregate of all those external and internal conditions, forces and influences that affect the growth and development of the organism. It is the totality of surrounding conditions where in we live. It is the sum total of all the external conditions and influences affecting organisms.

Definition of Environment :

“Environment means surrounding conditions of life or growth”.

-D.K. Bharadwaja's Gem Dictionary

“Environment means the circumstances, objects or conditions in which a person, animal or plant lives and operates”.

-Illustrated Oxford Dictionary

“Environment covers all the outside factors that acted on the individual since he began life”.

-Wood Worth

“The term environment is used to describe in the aggregate, all the external forces, influences and conditions which affect the life, nature, behavior, growth, and development and maturity of living organisms”.

-Douglass and Hall

“A person’s environment consists of the sum total of the stimulation which he receives from his conception until his death”.

-Boring

“Environment is anything Immediately surrounding an object and exerting a direct influence on it”.

-P. Gisbert

“Environment is everything, which affects the individual excluding genes”.

-Anastasi

“Environment includes all that is ‘within’ and ‘without’ us. It is our surrounding. It includes all the living and non-living objects as well as situations and factors which will affect them directly or indirectly for their existence on this earth”.

-Albert Einstein

The concept of environment is often considered in a limited way to represent only the physical world around us. It is necessary to extend this meaning to include the

bio-physical natural environment and also the man made physical environment as well as social, economical and educational. It is better to define environment in a holistic manner, as the sum total of all conditions and influences- physical, biological, social, economical and educational- that affect the development and life of organisms in existence.

Importance of Environment :

Environment is the basic necessity of human beings and animals. Environment has its own influence on all the aspects of human being. If anything happens to nature the whole human community will be disturbed. Environmental degradation leads to the end of human and animal life. Environment is God’s gift and it must not be taken for granted-it must be cared for. If not, humanity will face the severe consequences of its actions.

The importance of environment lies in the following points,

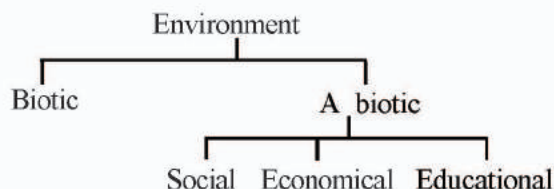
- The most important basic needs of man are air, water, food and shelter. These needs are fulfilled by environment. The physical environment includes plenty of air and water. Air is the basic need without which living being cannot survive. Man uses oxygen from plants and in turn plants require carbon dioxide. The physical environment includes plenty of water without which plants and animals cannot exist. For human

beings, water is the most essential resource of the environment. Water is used for drinking, bathing, cleaning and washing purpose.

- Food is another need which is also fulfilled by environment. The major food crops are grown in soil which is the main source available in huge quantity on earth. Different types of fruits and vegetables, are available in environment which are very useful in the growth and development of living beings.
- Shelter is the basic need without which human beings cannot live safely and comfortably. The mud, stones and wood found in the physical environment is used by man for his residence. The land area required to construct houses and other buildings is also the gift of environment.
- The atmosphere surrounded by all living beings contains different types of gases which are very useful for mankind and animals.
- The a-biotic environment also controls climatic factors like weather.
- It includes plants, trees, and animals, mammals, under water living beings, human beings and micro organisms like bacteria and fungi. These are highly dependent on each other.
- Socio- Cultural environment includes people with different customs, traditions, beliefs, faiths and religions. The personality development of the child depends upon this environment.
- Forests are very useful for both men and animals. Trees help us to use them as wood which will be utilized for different purposes. It is used to prepare doors, windows and other artistic household things. Wood is also used as fuel. Trees give shelter and help in bringing rain.
- Forest is safe and comfortable place for animals to live in.
- It reflects the harmful ultraviolet rays and protects us from skin diseases.
- It plays an important role in providing the basic needs for the flora(plants) and fauna(animals).
- It helps us to cure some diseases by providing natural medicinal plants.
- It keeps water and air pure by recycling and cleansing functions.
- It has immense aesthetic value which keeps stress down.
- The ocean, sea, hill peaks, rivers, lakes, deserts, thick forests- are all recreation centres for living beings.
- The forest, ocean and sky environment serves as home to various animals.
- Natural resources of gold and oil found in the physical environment have great value for mankind.
- The environment is our life-supporting system and it is hardly possible to truly estimate its value which is priceless.

10.2 Types of Environment - Biotic and Abiotic (Social - Economical and Educational)

Environment includes both living and non-living components. It can be classified into two types.

1. Biotic and 2. Abiotic**1. Biotic environment :**

It is also known as biological environment and organic environment. The biotic or biological environment is responsible for the living beings. So, the biological environment is the environment which involves the living part of the earth.

This type of environment includes plants, trees, animals, mammals, underwater living beings including human beings and microorganisms like bacteria and fungi.

The living beings are highly dependent to each other. For example humans are highly depend upon plants and trees for food and oxygen, and plants and trees are also depend upon humans and animals because of carbon dioxide.

2. A-biotic environment :

It is also known as a-biotic environment and natural environment. The meaning of 'a-biotic' or 'physical' is non living like land water air conditions atmosphere which constitutes of soil. So we can say that a-biotic environment is the environment which includes non living which constitute of soil and affect the living things.

A-biotic environment also includes the climatic factors such as sunbeams, rainwater, precipitation, moisture, pressure and wind speed.

The most important thing to make house is residential space. For that we need land area. The a-biotic environment like soil, water and air are the necessary nutrients element provider for the living beings.

All of living beings are surrounded by atmosphere; it is the combination of different types of gases. The living beings take oxygen and other gases from the atmosphere.

A-biotic environment also includes the soil which is responsible for the works and food crops for the living beings. It also provides different types of minerals which are very necessary for growth of life.

Water is one of the most necessary things for living beings available in a-biotic environment.

A-biotic environment includes social, economical and educational environment.

Social environment :

Social environment is the one developed by human, contrasted with the natural environment, society as a whole, especially in its relation to the individual.

A person's social environment includes living and working conditions, income level, educational background and the communities that they are part of. All these have a powerful effect on health. How we behave, our relationships, our gender and ethnic group, our education and work, the conditions and communities in which we live, and how we feel about ourselves are all elements of social environment. These elements overlap and interact with elements of physical environment to influence our health and impact on how long we live.

Social environment is very essential for human existence. One cannot imagine the life of man without social environment. Man should be in harmony with social environment. He cannot live alone. As he is a social being he needs to live in society and should have cordial relation with the members of the society. Society is the web of social relationships and men are so involved in it that they cannot come out of it. Man's social environment is of special nature. Society influences man's behavior and in turn society is influenced by man. They are the two faces of the same coin.

The customs, traditions, laws, beliefs, art and literature prevailing in the social environment influences man in his personality development. Throughout his life mankind is influenced by all the above mentioned factors. The child is reared and taken care by society and child's personality is moulded only in social environment. In this environment, parents, elders, friends, relatives, wife, husband, brothers, sisters, teachers are all influenced with each other and develop in the same environment. Spiritual and cultural factors influence a lot on mankind. The schools and colleges, libraries, news papers, mass-media also influence directly or indirectly towards the growth and development of an individual. Totally social environment has a lion share in its effect on the behavior and character of the individual.

Economic environment :

Economic environment is also very important as far as the progress of mankind is concerned. This environment includes man's production, distribution, consumption of goods etc. It also includes economic things like house, jewels, vehicles and all other things that man uses in his daily life. This environment has its own effect on human life. Those who live in economically stable environment will get maximum opportunities to grow and develop. On the other hand those who are in poor condition may not get the same opportunities to develop. Sometimes individuals having sophisticated facilities may fail to be good as they have got lot of money which makes

them go towards wrong path. The poor also sometimes choose wrong paths forced by their unstable economic condition. Totally the economic conditions of the individual will affect either positively or negatively.

Educational environment :

Educational environment is that environment where an individual gets education formally, informally and non-formally. Generally it is concerned with schools and colleges where formal education is being provided. It also includes atmosphere where individual are being guided in their all round development. The home, different organizations, friend's circle, cinemas, dramas, mass-media and all such agencies help in the growth and development of an individual. Those who are fortunate enough will get standard and good educational environment and progress well. For others it becomes very difficult to get the same education and sometimes, though they are intelligent, fail to achieve their goal. Parents and elders of a family are the most responsible persons who should provide good educational environment to their children so that they come up well in their life.

10.3 Meaning and Importance of Environmental Education

Environment is everything, other than heredity, that influences on individuals growth and development which starts from the time of conception in mother's womb. It not only refers to the physical surroundings but even to the thoughts and attitudes of others which exert and influences an individual. The protection of environment whether physical, social, cultural, economical or educational, is of utmost importance today. Whatever affects the bio physical world, will ultimately affect the mankind. It is the duty of every individual and their responsibility to find ways to protect environment. Today all types of environment are polluted by man himself. He has lost his peace of mind, happiness and always under tension and stress because of pollution or degradation of environment. Hence an awareness of protecting environment is the need of the hour. Education is a powerful media through which this awareness can be created among individuals. Therefore most of the thinkers and environmentalists recognize the immediate need of environmental education.

Meaning of Environmental Education :

Environmental education is comparatively a new area of discipline in education. The concept of environmental education was used for the first time during 1972 A.D. at stock home where the first international conference regarding the human environment was held. Environmental education generally refers to curriculum and programmes which aim to teach people about the natural world, and particularly about the ways in which ecosystem works. It is concerned with the understanding of the concept of environment and its importance to human life. It is that education which gives knowledge regarding the proper use of natural resources. It also directs to control the environmental degradation. The literal meaning of environmental education is that it is about the various aspects of nature and their importance to mankind. It is a process of recognizing values and clarifying concepts relating to environment and its problems.

Definition of Environmental Education :

Environmental education is a process of developing awareness, positive attitude and a will to an appropriate manner towards the environment.

“The term environmental education means the education process which deals with man’s relationship with his nature and man-made surroundings and includes the relation of population, pollution, resource allocation, and depletion, conservation, transportation technology and urban and rural planning to the total human environment.”

-The united state environmental education act 1970

“Environmental education appears to be a process that equips human beings with awareness, knowledge, skills, attitudes and commitment to improve environment.”

-Mishra (1983)

“Environmental education is the process of recognizing values and clarifying concepts so as to develop skills and attitudes necessary to understand and appreciate the inter relatedness among man, his culture and his bio-physical surroundings. It also involves practice in decision making and self-formulation of a lack of behavior about issues concerning environmental quality.”

-Cerovsky

From the above definitions it can be concluded that environmental education is ‘about’, ‘from’ and ‘for’ the Environment. Thus, environmental education is a comprehensive, lifelong process, responsive to changes in a rapidly changing world. It improves skills and attitudes, required to play a productive role in improving life and values to enable people to enjoy good health and high quality of life.

It is a process of providing learning experiences to obtain knowledge, understanding, skills and awareness with desirable attitudinal changes about man’s relationship with his natural and man-made environment.

Importance of Environmental Education :

There is now a wide apposition of the damage being done to the environment through human activity. This damage is sometimes global, as in the case of the depletion of the ozone layer and of the increase in greenhouse gas emissions. Often the damage is regional, as with pest degradation of native forests, or the erosion of river catchments. Often too, the damage is local. Pollution from motor vehicles, contamination of soil by chemicals, sewage discharges; these and hundreds of other human activities stress the environment.

Environmental education, together with sound legislation, sustainable management, and responsible actions by individuals and communities, is an important component of an effective policy framework for protecting and managing the environment.

Environmental Education is a new focus for education. It is a way of helping individuals and societies to resolve fundamental issues relating to the current and future use of the world's resources. However, simply raising awareness of these issues is insufficient to bring about change. Environmental Education must strongly promote the need for personal initiatives and social participation to achieve sustainability.

The Tiwary committee (1980) has recommended the urgent need of environmental education. Besides introducing the subjects of 'Environmental Science' at all levels of education, emphasis should be laid on the new approaches and programs of environmental education. Thus, the idea is to bring environmental concerns in all subjects and to all facets of life.

Environmental pollution has created great stress on human mind. Hence, there is a need for environmental education today. It's a new focus for education. It is a way of helping individual and society to resolve fundamental issues relating to the current and future use of world's resources.

The importance of environmental education lies in the following points.

- It develops an awareness of environment and sensitivity (feeling and attitude) to the total environment and its allied problems.
- It creates awareness, knowledge, attitude, skills, evaluation and participation among people on environmental problems and conservations.
- It helps in acquiring knowledge and variety of experiences of the environment and associated problems.
- It develops strong feelings of concern for the environment and positive attitudes to take active part in the protection of environment.
- It develops a basic understanding of structure, processes and problems of environment and interdependence of environmental components.
- It is essential for understanding and appreciating how the environment is used for making a living and promoting material culture.
- It guides in acquiring skills for identifying and solving problems of environment.
- It develops holistic approach in protecting environment.
- It develops positive attitude, a set of values and feelings of concern for the environment.
- It encourages or motivates individual for active participation in the protection and improvement of environment.
- It provides an opportunity for an active participation or practice at all levels in working for the solutions for environmental problems.
- It develops ability for evaluating environmental components and educational programs in terms of ecological, economic, social, cultural, esthetic and educational factors.
- It helps improving the quality of environment.
- It creates an atmosphere in the school and class room so that students can participate in activities concerne with environmental protection.
- It develops awareness among students on environmental problems and conservation.

- Develops awareness, increased knowledge, builds skills and creates the capacity for good citizenship regarding the environment upon which he depends for life support.
- It helps in active participation of students in preventing and solving environmental problems.
- It helps in examining the environmental issues from global point of view.
- It motivates all towards solutions to current environmental problems and prevention of pollution.
- It helps individuals and groups to acquire social values, strong feelings of concern and the motivation for actively participating in the protection and improvement of environment.
- It helps individuals and social groups to develop a sense of responsibility and urgency regarding environmental problems for ensuring appropriate action to solve those problems.
- It is essential for understanding the different food chains and the nature's ecological balance.

10.4 Environmental degradation-Meaning -Factors leading to environmental degradation- socio-economic and cultural factors.

Meaning of environmental degradation :

Environmental degradation means deteriorating the environmental quality at global, regional and local levels by both natural processes and human activities. It is an overall lowering of environmental qualities because of adverse changes brought in by human activities in the basic structure of the components of the environment to such an extent that these adverse changes affect adversely all biological communities in general and human society in particular. Environment degradation means the changing of the environment for the worse with the natural resources being either badly effected or severely depleted, threatening of the life line of the human beings on this planet. It is a process by which our environment i.e., air, water and land is progressively contaminated, over exploited and destroyed. In specific terms, environmental degradation is the deterioration of the environment through the depletion of resources such as air, water, soil and forest, the destruction of eco-systems and the extinction of wild life.

Pollution or hazardous substances that occur suddenly and naturally or by human activities cause environmental degradation. Man is carelessly interfering with the eco-system and deliberately killing wild animals. He is utilizing resources like water, soil, trees, coal and petrol etc., Without caring for the future. Whenever these resources are utilized carelessly and habitats are destroyed, the environment is hurt. As environmental degradation has a direct impact on the ecology, it causes ecological imbalance. Forests, minerals, water, air and land have been meeting the needs of human beings since time immemorial. The rapid rate of consumption of resources has led to faster depletion of resources. Every now and then, man is being cautioned about the environmental degradation and its consequences like global warming, changing climatic conditions, impending water crisis, decreasing fertility of agriculture land and increasing health problems. Hence there is a great need of understanding the factors leading to environmental degradation.

socio-economic and cultural factors leading to environmental degradation.

Socio-economic and cultural environment consists of all those things that are developed by man. It comprises complicated societal and individual actions originating from culture. In other words, all aspects of culture are part of the man-made environment. The basic unit of society is an individual. He is also a member of several groups -family, school, community, nation and the world. He is involved in complex interaction between himself and the bio-physical components of the individual. These interactions lead to many activities. These interactions and activities can be labelled as socio-economic, religious or political. Together they constitute socio-cultural factors. When these socio-cultural activities are not well planned they can have detrimental and irreversible consequences on the environment.

I. Social factors :

Some of the social factors which lead to environmental degradation are as follows.

**1. Population explosion :**

Population is the greatest resource of any country. It is a major contributory factor for development and yet it is a major cause of environmental degradation. According to the United Nations Fund and Population Activities (UNFPA) 150 babies are being born every minute worldwide. India alone is giving birth to 40 babies every minute. This rapid growth of population has led to the excessive utilization of natural resources. Huge population also leads to the huge production of wastes. This results in the loss of bio-diversity, pollution of air, water, soil and uncreated pressure on the land. If population explosion is not checked, it will be disastrous to our country.

Impact of population explosion :

- It exerts immense pressure on the available natural resources. This results in the food scarcity, high unemployment and rural-urban migration.
- It gives ways to social unrest and economical and political instability.
- It results in increased poverty, with crores of people not having access to basic necessity.
- It exerts immense pressure on land.
- The poor will be deprived of food that they need.
- It leads to the creation of different types of pollutions like air pollution, water pollution, sound pollution and deforestation.
- It becomes a cause for the deprivation of food and it results in malnutrition and other diseases.
- It exerts immense pressure on the available health services.
- It results in the utilization of land for residential purpose. The land used for agriculture is used for construction of houses, factories and complexes etc.

Poverty :

Poverty is said to be both cause and effect of environmental degradation. Poor people use natural resources more than the rich. They use these resources for building their huts, cooking and for many other needs. In this way they deplete these resources faster than the rich.

Impact of poverty :

- Crores of poor people are forced to cut forests every day and sell wood for their daily living.
- The nomadic communities in rural areas depend more on natural resources for their livelihood.
- It has lead to deforestation.

Urbanisation :

Urbanization or the building of towns in rural areas has become a concern for the environmentalists, as it is responsible for a number of problems.

Impact of urbanization :

- The deteriorating infrastructure in the urban areas contributes to environmental degradation.
- Garbage and auto emissions, including noise pollution affect the environment.
- Conversion of green belt areas for domestic purposes.
- Shrinking of green spaces.
- It leads to deforestation.
- Increased demand on natural resources.
- Migration of people from villages to and towns, increasing urban slums and unhealthy settlements.
- Excessive demands on public transport.
- Increase in air, water and noise pollution.
- Waste disposal problems play havoc with the health and life of the people in urban areas.
- poor people in urban areas suffer from respiratory problems, tuberculosis, intestinal parasites, diarrhoea, etc.,

Modernization :

Modernization has also his own effect in environmental degradation.

Impacts :

- Misuse and abuse of science and technology and its impact.
- use of modern gadgets like Television, telephone, Mobiles, computers and air planes etc.,
- Excessive competition between societies leading to wars.
- Use of air conditioners, refrigerators affect the health of individual in particular and society in general.

Changing life styles with respect to modernisation and urbanization.

There has been a remarkable change in the life style of the people. This change is visible not only among the people living in cities and towns but also among those who live in villages. The changing life style of people has enormously increased their level of consumption. It has also resulted in the increase of human activities that are causing serious damage to environment in many ways. It has contributed to air, water,

sound, vehicle and industrial pollution. The fallout of the fast increasing use of modern gadgets like refrigerators and air conditioners is the release of harmful gases in the atmosphere. This has been causing global warming which is very dangerous. In fact, due to overuse of modern gadgets, harmful gases like carbon monoxide and carbon dioxide are released which has lead to global warming.

Impact of modern and urban life style.

- use of electricities carelessly because of self comfort
- use of plastics.
- using refrigerator, airconditioner and other gadgets.
- Non-using of solar cookers, heaters etc.,
- No care about tree plantation and gardening
- use of excess of water carelessly
- Smoking.

Points to be remembered with regard to life styles to maintain environmental degradation.

- Use of flourescent tubes which consume less electricity.
- Use of paper instead of plastics
- Avoiding littering.
- Use of refrigerator and other gadgets which donot emit chloro-fluro cabons.
- using solar cookers, heaters etc.
- Providing tree plantation and gardening.

- Controlling of excessive use of water
- Use current when it is necessary
- Keep the taps closed while brushing or shaving etc.,
- Draining the kitchen water to garden and flower pots.
- No excessive use of water for cleaning and washing clothes.

Economic Factors :

Agricultural Development: Agricultural development is so important for a country like ours. But this has been affecting the environment adversely. Various kinds of farming activities especially directed towards increasing agricultural production have a

direct impact on environment. These activities have been contributing to soil erosion, land salination, alkalization and loss of nutrients. As we have been experiencing in India, the green revolution has led to over exploitation of land and water resources. Extensive use of fertilizers and pesticides has been a major source of contamination of water bodies and land degradation.

Industrialization:

Rapid industrialization has been the foremost contributor to environmental degradation. Based on the information collected through various sources, we find that most of the industries adopt the technologies that place a heavy load on environment. These technologies lead to intensive use of resources and energy. The current pace of industrialization therefore is resulting in the depletion of natural resources

like fossil fuel, minerals and timber, and contamination of water, air and land. All these are causing immense damage to ecosystems and leading to health hazards.

Impact of industrialization :

- Development of unhygienic and unhealthy environment, industrial establishments, townships etc.
- Pollution of air, water and land.
- Resource deterioration
- Problems of industrial waste disposal and its impact.
- Migration of people from rural to urban areas.
- Problems of theft etc.,
- Transportation and traffic congestion.

Economic Development:

It is a fact that the pattern of economic development has also been creating environmental problems. The pace of economic development has been putting immense pressure on resources. The economy today has become consumption intensive which demands greater use of resources and promotes life styles that lead to wastage. The irrational use of resources and wastages are resulting in depletion of environment.

3. Cultural factors :

Culture is a very important factor which determines social environment and social action. Behaviour of an individual is guided by the culture he lives in. Culture guides him to select a particular way of behavior from a very broad range of alternative behaviors that are permitted to him by his biological heritage.

According to a British anthropologist, Edward Taylor, "Culture is that complex whole which includes knowledge, belief, arts, morals, laws, customs and any other capacities and habits acquired by man as a member of the society". Man exhibits an amazing diversity of cultural aspects. These are the ways of adaptation to the surrounding physical environment.

Some of these cultural practices have had a deteriorating effect on the environment. Over exploitation of natural resources may occur, resulting in an ecological imbalance. In modern industrial societies, deforestation, replacement of natural forests by concrete jungles destruction of wildlife etc., are instances of culture, severely affecting physical environment.

It is also seen that exploitation of natural resources is not possible unless a certain level of culture development is reached.

The environment influences the development of cultures, and similarly our culture influences the make up of the local environment. For example, food is an important part of our culture. This affects the crops people grow, animals that they raise or hunt and the waste products that they send back into the environment.

Throughout history, bio-diversity has been very important inspiring many cultural traditions. This can be seen in the music, ceremonies, fairs, holidays, mythology and decorations used in different cultures around the world. Protecting bio-diversity helps in reserving many of these cultural traditions. Protecting cultural traditions helps to protect the natural bio-diversity of the land, the culture needs for survival.

10.5 Conservation of Natural Resources -Management of natural resources -**Role of 4 R's (Reduce, reuse, refuse and recycle.)-Eco-Friendly life style**

The term resource includes all those materials which are given by nature freely to man. They include land, water, forest, minerals, atmosphere etc.,

Natural resource is everything that is available and utilized by man to fulfill his needs. These are the sources which are found both on the earth and inside the earth. Soil, Stone, Water, Air, heat, plants are found on the earth and minerals, energy resources, gas, groundwater under the

earth are all natural resources. Man, being intelligent is using all these natural resources to fulfill his needs. Human health and economic development ultimately depend upon the resources of the earth. However the advancement of modern civilization has had a great impact on our planet's natural resources. Growing population, increasing consumption and poor management of existing resources are all leading to a decline in natural resources. Hence conservation of natural resources is the need of the hour.

Natural resources are of many types. The most important are

1. Land resources
2. Forest resources
3. Water resources
4. Mineral resources
5. Food resources
6. Energy resources.

All these natural resources are very useful to living beings, espencially for human being. It is very essential to know the effective ways of conserving resources. Effective ways of conserving resources, both renewable and non-renewable include reducing wasteful consumption by reusing and recycling wherever possible. True conservation of resources requires ending the excessive use of natural resources. We should not exhaust our resource capital, but should use it judiciously. Natural resources are to be used very carefully and without seriously disturbing their imbalance in nature. To achieve this we have to initiate major conservation measures to learn to reuse our resources on a much larger scale than wer are doing at present.

Practically, conservation refers to planning and management of resources so as to secure their wise and continuity of their supply while at the sametime maintaning and enhancing their quality, value and diversity. Conservation is the management for the benefit of all life including man kind of the biosphere so that it may yield sustainable benefits to the present generation while maintaining its potential to meet the needs and aspirations of the future generation.

“we are not forecasting a future ; we are a surviving a notice an urgent notice based on latest and best scientific evidence -that the time has come to make the decisions needed to secure the resources to sustain this and coming generations.”

-Report of the world commission on environment and development, 1987

The following precautionary measures help to conserve and develop natural resources.

- **Checking population growth :** The gap between birth and death rates must be brought to the minimum possible level. This ensures slow population growth and reduces pressure on environment for meeting the basic needs of the population.
- **Regenerate biotic resources :** Renewable resources like plants and animals should be regenerated through afforestation and protention of wild life.

- **Reduce the use of resources :** Unplanned, extravagant use of natural resources must be reduced. Renewable and non-renewable resources should be utilized at the lowest possible rate.
- **Reuse of the materials :** Using materials again and again will reduce the cost of production and minimizes environmental pollution.
- **Recycling materials :** Recycling means continuous use of resources, specially non renewable ones. Glass, plastics, iron and many other inorganic materials can be recycled • **Afforestation and careful use of water resources** will help recycle air and water by natural processes.
- **Exploitation alternative energy sources :**

Conventional energy resources used for energy production are being exploited almost to the fullest extent. The energy thus produced is barely sufficient for the present needs. This may not suffice future requirements. Hence alternate energy sources like wind, ocean, geo-thermal biogas and the inexhaustible solar energy need to be harnessed. This reduces pressure on our forests and fossil fuel resources. more over, most of these energies are pollution-free and eco -friendly.

Conservation of natural resources really becomes effective when we begin to refuse alternatives which consume more natural resources and choose the ones which consumeless.

Other precautionary measures :

- Fair sharing of resources.
- Awareness of environmental protection by introducing topics concerned to this in the curriculum and through programmes via mass media.
- Conducting seminars and lectures so that the students will understand the concept of and the need for the conservation of natural resources.
- Organising on the following issues and suggesting remedies.
 1. Waste water disposal
 2. Solid waste disposal
 3. Controlling of soil erosion
 4. Making portable water available to people.
 5. Increasing the accessibility to public transport.
 6. Finding out the alternate materials for building construction.
 7. Finding out alternate methods of recycling plastics.
 8. Awareness regarding planting.
 9. Awareness of protecting animals.

Management of natural resources to meet human needs :

The theme of environmental management is “The reduction or minimisation of the impact of human activities on environment, thus an effort to protect the overuse, misuse of environmental resources.”

The management of natural resources is the process to improve the relationship between the environment and man so that ‘environment quality’ and human society may be improved. This objective can be achieved through check on destructive activities of man, conservation, protection, regulation and regeneration of nature. It is related to the rational adjustment of man with nature involving judicious exploitation and utilization of natural resources without disturbing the ecological balances and ecosystem equilibrium.

Functions and characteristics of natural Resource management

1. Maintains ecological balance and ecosystem stability for welfare of man.
2. Relates to the rational adjustment of man with nature.
3. Involves socio-economic development of society and maintenance of environment quality.
4. Compromises between ecological balance, ecosystem stability and socio-economic development of man.
5. Its main function is to conserve natural resources and control all types of pollution.
6. It has three major functions.
 - a) Protection of environment and lowering down the level of pollution.
 - b) Enhancement of socio-economic values of the environment and its resources.
 - c) Preservation of the environment for future generation.
7. Evaluates the policies, plan, priorities implemented for the maintenance of the ecological balance and stability of ecosystem in view of the human development.

Dimensions of Natural Resource management

1. **Environmental awareness** - It includes sources, levels and role of the environmental training.
2. **Environmental education** -It is given at different levels and environmental training.
3. **Resources management** -It includes survey and classification of natural resources, preservation of ecological resources and conservation of energy resources.
4. **Environment impact, Assessment or evaluation** -It include methods procedures, production, development and realization of objectives.

5. **Control of environment pollution-** It includes regeneration, control and regeneration, control and reduction of natural disaster.

Approaches two natural resource management

There are two approaches of natural resource management.

1. Preservative Approach and
2. Conservative Approach

1. Preservative Approach : It advocates non-interference of man with nature and complete adaptation of man to natural or physical environment. This approach is not practicable because man has to exploit the natural resources for his survival. He has to fulfil his basic or primary needs, causing disequilibrium in the ecological balance or resulting into environmental pollution.

2. Conservative approach -It seeks adjustment with nature and complete adaptation of man to natural or physico-biological environment in terms of industrial / technological and behavioral-social institutional adjustments. It points out that natural resources may be utilized for the socio-ecological development of man but efforts should be made to maintain ecological balance, stability of ecosystem and quality of the environment. It has two perspectives-

- I.** To check and reduce adverse effect of human activities on environment.
- II.** To increase the productivity of natural environmental ecosystem and maintain ecological balance.

Role of 4R's-Reduce, Reuse, Refuse and Recycle

The 4R's represent, in order of priority, the steps for responsible waste management: Reduce, Reuse, Refuse and Recycle. These steps help to reduce waste of natural resources.

1. Reduce :

Unplanned, extravagant use of natural resources must be reduced. Renewable and non-renewable resources should be utilized at the lowest possible rate.

Source reduction is the most effective step of the 4R's because it encourages people to think about their consumption. The following principle should always be borne in mind: the easiest waste to manage is waste that is not generated in the first place. Reducing consumption automatically creates less waste, and reduces use of natural resources and energy to produce new goods and products. There are a number of ways to achieve reductions at the source, for example, by avoiding single-use products. An effective strategy for achieving this goal involves setting clear and measurable targets, implementing appropriate measures and periodically assessing progress. This approach makes it easier to target efforts and measure their outcomes.

Example: Reducing paper use

Ways to reduce paper use include,

- Programming automatic double-sided printing or setting up a dedicated printer using paper already printed on one side.
- Using single spacing
- Reducing margins
- Printing as little as possible

Example: Reducing packaging

Ways to reduce packaging include,

- Imposing criteria on suppliers
- Purchasing products in bulk or more concentrated products
- Selecting products with no packaging or with compostable, reusable or recyclable packaging

2. Reuse :

Reusing means finding a second life for a product or using it repeatedly without necessarily transforming its appearance or properties. Repairing an item, using used goods or finding other uses for an item are various examples of reuse. Using materials again and again will reduce the cost of production and resulting environmental pollution.

3. Refuse :

use of unnecessary natural resources should be avoided or refused. This leads to the proper utilization of resources. Reuse is the best way of conserving natural resources. We should be intelligent to utilize natural resources according to our basic needs.

4. Recycle :

Recycling means continuous use of resources specially non-renewable ones. It means transforming waste in order to create new products rather than using virgin material. Glass, plastics, iron and many other inorganic materials can be recycled. For example, plastic bottles are used to make polar fleece garments and aluminum from cans is melted down to make new cans. Afforestation and careful use of water resources will help recycle air and water by natural processes.

Eco-friendly life style :

The human intervention in the normal processes of environment has resulted in the enormous depletion and degradation of natural resources, and all other aspects of environment in general. This excessive human intervention has also disturbed the delicate balance of nature, leading to several disasters and calamities. In order to set right the imbalance in the environment, man has to keep good relation with the environment. Hence eco-friendly life style is need of the day.

An eco-friendly life style may be described as any life-style which helps to conserve natural resources, promotes preservation and conservation of the environment and avoids any activity

which leads to environmental degradation. It is any lifestyle which hinders the depletion of natural resources and favours the conservation and protection of environment.

A few criteria of an eco-friendly life style are,

- Cultivating the skills of love towards environment.
- Minimum and judicious use of natural resources.
- Making conscious attempts to observe 4R's reduce, reuse, refuse, and recycle.

Eco-friendly life style helps to conserve resources, promotes, preservation and conservation of environment. Our ability to alter the environment must be exercised in the light of our understanding of what is beneficial to the environment in the long run.

The Indian tradition teaches us that all forms of life -human, animal and plant are sacred and so closely related and linked with each other that disturbances in one gives rise to imbalances in the other. This life style confirms the conservation ethic. Each of us should lead a life guided by respect for the earth and all living things. We must be willing to accept new information and adopt new values that enable us to live in harmony with our environment.

We should be selective in our consumption of resources, choosing those which cause the less environmental damage in our surroundings. We have to choose life styles which are in harmony with the environment and which foster long-term benefits to present and future generations.

10.6 Role of field trips, nature walk, nature game and eco-clubs in environmental education.

Environmental education refers to the curriculum and programs which aim to make people to understand the natural world. It is concerned with the understanding of the concept of environment and its importance to human life. It develops awareness regarding the environment and its importance. It creates awareness, knowledge, attitude, skills, evaluation and participation among people on environmental problems and conservations. The role of field trips, nature walk, nature game and functions of eco-clubs are of immense importance in environmental education.

Field trips : A field trip is a journey by some people in group, particularly students away from their environment. The trip is done for observation.

It is a group excursion for the purpose of first hand observation as to a museum, the woods or a historic place.

Field trip is a trip by students to gain first hand knowledge away from the classroom, as to a factory, geological area, or environment of certain plants and animals.

It is an occasion when students go somewhere to learn about a particular subject, especially one connected with nature science.

It is a visit to a place that gives students the chance to study something in a real environment rather than in a classroom.

Importance of field trips :

- Field trips are important to help bridge the gap between education and hand on experience.
- They supplement and enrich public education outside the classroom.
- They give first hand experience regarding the problems of environment.
- They help in direct observation of the problems with regard to environment.
- Brings pupils and teacher together and helps in social learning.
- Helps in child's socialized skills.
- It allows child to explore new things about environment.
- It is enjoyable
- It develops appreciation skill regarding environment.
- It develops love and sympathy towards nature.
- It develops awareness about our surroundings.
- It helps in the proper utilization of leisure.
- Field trips to places where gobar gas biogas/solar energy is used for various purposes helps to understand how these technologies are useful when compared to LPG, wood and charcoal etc.
- Field trips expand children's knowledge through active hand on experience.
- They increase knowledge and understanding of the problems of nature and its protection.

Nature walk :

In this age of super market, children need to become aware of the sources from which they secure food and further more need to have an understanding of the nature forces upon which man depends for his needs and their influence upon the economy.

Outdoor education is a common sense of method of learning. It is natural, plain, direct and simple.

Such directive experience dealing with native materials and life situations should be learnt.

It is most efficient and more effective learning. The purpose is to enrich, vitalise and compliment content areas by means of first hand observation. and direct experience outside the classroom.

Taking children into the nature for observation is a very useful technique in environmental education.

Importance of nature walk

- Gives more energy to enjoy life.
- It reduces stress.
- Helps to enjoy natural things in the environment - the site, sound, birds etc.
- It develops love towards nature and appreciation skill is developed.

- Helps in getting more oxygen to the body.
- It helps in the awareness of loving natural animals and plants.
- The beauty of the nature is enjoyed.
- Nature walk to hills, mountains, forests, gardens, lakes helps us to understand and enjoy the beauty of nature.
- It helps to maintain calm and peaceful mind and helps to take things easily with patience.

Learning about environment is interesting too. During nature walk the learner directs his perceptive powers towards all elements in nature. This observation helps learners to gain first hand experience which leads to deeper insights into the various natural processes and phenomena.

Nature games:

Nature games are nothing but activities where in children's participation is predominant. As games involve elements of recreation and enjoyment, students play them with great interest and enthusiasm.

Nature games develop favourable attitudes towards environment.

The advantages of the nature games are that they have intrinsic potential for motivation because,

- They require active participation
- Players get immediate feedback.
- Games have specific objectives.
- They encourage interaction among players
- They provide new and interesting way to convey information which is easy to learn.
- Through game information is synthesized at higher cognitive level and it is easily available for analysis and application.

Steps involved in nature games

1. Identifying suitable games.
2. Briefing the students : Introduce the background and objectives of gaming and describe natural games.
3. Operating session motivate keep rhythms of activity keep the framework flexible have definite operational characteristics.
4. Rebriefing Discuss, gaming results learning achievement feedback on the whole system.
5. Assessment and evaluation.

Importance of Nature games :

1. Enjoyable exploration.
 - a heightened interest and environment in learning.
 - takes awakes classroom drudgery.
 - Removes student teacher polarisation
 - provides scope for co-operative behavior
2. Interdisciplinary participation
3. Provides decision making experience through,
 - The problem solving process.
 - Bridging the gap with reality.
 - Provides wider perspective.

Activity 1 :

Take children outside the class- give them a piece of leaf . Ask them to identify the tree or the plant. Ask them to speak few words on that tree or plant

Activity 2 :

Take them around the campus of the school. Ask them to observe as many things as possible in the nature. After returning to class ask them to list the things seen during their walk.

Eco-clubs

Eco(Environmentally connecting others) -club is an organization of individuals who have love for nature, interest in conservation and development of natural resources, a sense of dedication and who actively participate in various activities related to nature. Eco-clubs are also called as nature clubs. There is a need for the organization of eco-clubs to foster integrated personality development among students. Eco-clubs enhance the interest of students in environmental activities and create environmental awareness among them.

Objectives of eco-clubs :

- Organizing activities to create interest among its members in environment and real life situations.
- Inculcating an environmental perspective among the members.
- Motivating members to participate in the environmental activities.
- Promoting the habit of co-operation among members.
- To enable the members to understand the importance of environment.
- Organizing activities where the members take part individually and collectively.
- Making members to participate in different environmental activities.

- Creating awareness regarding the environmental laws among members.
- Enhancing the members skills in the utilization of natural resources.
- Encouraging the proper use of natural resources.
- Provide scope for understanding and appreciating the living and non-living organisms in the nature and their interdependence.
- Provide opportunities for developing and fastering certain abilities in students like leadership, communication, creativity, planning and organising ability etc.
- 'Learning by doing' and 'learning by living' are the very important principles of eco club activities.
- Develops, maintains, and enhances pupils interest in environment.
- Make environmental studies meaningful and enjoyable.
- Supplement knowledge obtained through classroom teaching.
- Provide leisure time activities.
- Bring out better relationship with environment.

Activities of Eco-clubs :

- Arranging lectures by experts in the field.
- Inviting experts to speak on environmental protection.
- Conducting seminars, debates, and symposiums on environmental problems.
- Arranging nature walks, field trips to places of ecological interest.
- Collection and preservation of specimens, objects etc.
- Preparing charts, models etc. relating to environment.
- Organizing important days related to environment.
- Conducting surveys on environment and related aspects.
- Protecting school environment by planting trees and maintaining gardens.
- Implementing environmental projects like sanitation, rain harvesting etc.
- Organising rallies related to environmental awareness.
- Conducting field visits to industries and slums to create awareness regarding pollution.
- Observing days of ecological importance.
- Arranging nature fairs and exhibitions.

Project :

prepare a detailed report on socio-economic and cultural factors leading to environmental degradation-measures to overcome the problems -Role of 4R's in management of natural resources to meet human needs.

Exercise questions**I Answer the following questions in a sentence each**

1. What is environment ?
2. Write the meaning of biotic environment.
3. What is a biotic environment.
4. Write the meaning of environmental education.
5. What is a field trip ?
6. What are eco-clubs ?
7. Write the meaning of nature walk ?
8. What is a nature game ?
9. What is environmental degradation ?
10. What is eco -friendly life style ?

II Answer the following questions in 2-3 sentences each

1. Name to types of environment.
2. Write the concept of environmental education.
3. What is the concept of environmental conservation ?
4. What is biotic environment ? Give one example.
5. What is A-biotic environment ? Give one example.
6. Mention two uses of field trips.
7. Mention two uses of nature walk.
8. Mention two uses of nature game.
9. Mention two objectives eco-club.
10. Write the concept of eco-club.

III Answer the following questions in not more than a page each

1. What is environment? Write its importance.
2. What is environmental education ? Write its importance.
3. What is the meaning biotic and A-biotic environment ? Write one example each.
4. What is the role of social factors in environmental degradation.
5. What is the role of economic factors in environmental degradation.
6. What is the role of cultural factors in environmental degradation.
7. Write the importance of conservation of natural resources.
8. What is ment by reduse, reuse, refuse and recycle ? Mention their uses.
9. Write the importance of nature walk and nature games in environmenatl education.
10. What is eco-club ? Briefly explain the importance of eco-club ?

IV Answer the following questions in not more than two pages each

1. Write concept of environmental education. Bring out its importance.
2. Explain the different types of environment.
3. Explain the factors leading to environ mental degradation.
4. Write the meaning and importance of conservation of natural resources.

I Year PUC Education (52)

Blue Print

Time 3 - 15 hours

Max marks :100

Unit no.	No. of Teaching Hours	Marks Allotted	Knowledge					Understanding					Application					Skill					Attended Questions
			1	2	5	10	1	2	5	10	1	2	5	10	1	2	5	10	1	2	5	10	
01	14	18							1					1	1	1							04
02	12	15	1					1		1			1										04
03	14	18	1	1	1					1													04
04	12	15	1		1			1	1				1										05
05	10	13	1		1			1						1									04
06	06	08	1	1	1																		03
07	12	15	1	1	1				1				1										05
08	14	18	1							1							1	1					04
09	12	16					1											1			1		03
10	14	18	1	1	1					1													04
	120	154	46					62					31					15					40

Model Question Paper
First year PUC-Education-52

Time 3.15

Max Marks :100

Instruction

1. Write the question numbers clearly on the left side of the answer book.
2. Answer the questions according to the instructions given under each part.
3. Answer the questions of “**part A**” in starting page of the answer book.

Part -A

I Answer the following questions in a sentence each.

10x1=10

1. Write the meaning of ‘**Educatum**’
2. What is development ?
3. Write the meaning of Motivation.
4. What is Group Dynamics ?
5. What is the meaning of formal agency of education ?
6. Write the meaning of counseling.
7. Name two Barriers to mental health.
8. What is consumption ?
9. What is the meaning of scientific temper ?
10. Write the meaning of biotic environment.

Part-B

II Answer any Ten of the following questions in 2 or 3 sentences each. 10x2=20

11. ‘Education is a Tri-polar Process’ -Elucidate.
12. Write the concept of heredity.
13. Write any two importance of physical growth during adolescence.
14. Write the concept of learning.
15. Write the importance of Democratic leadership.
16. Write the concept of group Dynamics.
17. What are formal and informal agencies of education ?
18. What is investment and consumption ?
19. What is concept of guidance ?
20. Write the importance of health counselling ?
21. Write any two importance of balanced diet.
22. What is a-biotic environment ? Give on example.

Part -C

III Answer any eight of the following questions in not more than a page each.

23. What are individual aims of education ? Explain any one of them. **8x5=40**
24. Briefly explain the characteristics of learning.
25. What is Leadership ? Mention its characteristics.
26. What is open university ? Write its importance.
27. What is the role of education in the economic development ?
28. What is guidance ? Briefly explain the principles of guidance
29. Briefly explain any two techniques of counselling.
30. Bring out the importance of Meditation and pranayama.
31. What is a group ? Briefly explain the characteristics of group.
32. 'Education is an instrument of social change justify.
33. Briefly explain the meaning and importance of panchakoshas.
34. What is environmental education ? Bring out its importance.

Part -D

IV Answer any two of the following questions in not more than two pages each.

35. Explain physical, cognitive, social and emotional development during later childhood.
36. Explain Gagne's type of learning.
37. Philosophy and psychology are the bases of education-justify.
38. Mention the characteristic features of a physically healthy individual. Write the importance of physical exercise and relaxation in improving the physical health of an individual.

Part -E

V Answer any ONE of the following questions not more than two pages each.

39. What are social Values ? Explain any two of them, **1x10=10**
40. Write about the conservation of natural resources. What is the role of reduce reuse refuse and recycle in the conservation of natural resources.

ಆಧಾರ ಗ್ರಂಥಗಳು (References Books)

1. ಸಮಾಜಶಾಸ್ತ್ರದ ಕಿರು ವಿಶ್ವಕೋಶ - ಚ.ನ. ಶಂಕರರಾವ್
2. ಶಿಕ್ಷಣದ ಆಧಾರಗಳು - ಭರತ್ ಭೂಷಣ್ ಬಿ.
3. ಪರಿಸರ ಅಧ್ಯಯನ - ಪ್ರೊ. ಕೆ. ಭೈರಪ್ಪ
4. ಶಿಕ್ಷಣ ಮತ್ತು ಜೀವನದ ಅರ್ಥ ಮೂಲ ಅನುವಾದ - ಜೆ. ಕೃಷ್ಣಮೂರ್ತಿ
5. ಯೋಗ ಸಾಧನೆ ಹಾಗೂ ಯೋಗ ಚಿಕಿತ್ಸಾ ರಹಸ್ಯ - ಕು. ಶಿ. ಹರಿದಾಸಭಟ್ಟ
6. ಶೈಕ್ಷಣಿಕ ಮನೋವಿಜ್ಞಾನ - ಸ್ವಾಮಿ ರಾಮದೇವ
7. ಶಿಕ್ಷಣದಲ್ಲಿ ಮನೋವಿಜ್ಞಾನ - ಹೆಚ್. ವಿ. ವಾಮದೇವಪ್ಪ
8. ಶಿಕ್ಷಣದಲ್ಲಿ ಪ್ರಕ್ರಿಯೆಗಳು ಹಾಗೂ ವಿಚಾರಾಂಶಗಳು - ಎ.ವಿ.ಗೋವಿಂದರಾವ್
9. ಶಿಕ್ಷಣಶಾಸ್ತ್ರದ ಪಾರಿಭಾಷಿಕ ನಿಘಂಟು - ಭರತ್ ಭೂಷಣ್ .ಬಿ
10. ಶಿಕ್ಷಣದ ಆಧಾರಗಳು - ಎನ್.ಎಸ್.ವೀರಪ್ಪ
11. ಶಿಕ್ಷಣದಲ್ಲಿ ಪ್ರಕ್ರಿಯೆಗಳು ಹಾಗೂ ಒಲವುಗಳು - ಎಸ್.ಎ. ಮೇಟಿ
12. ಭಾರತದ ಆರ್ಥಿಕ ಅಭಿವೃದ್ಧಿ ಹಾಗೂ ಮೂಲ ಆರ್ಥಿಕ ಸಿದ್ಧಾಂತ - ಎಸ್.ಎ. ಮೇಟಿ, ಎಸ್.ಜಿ. ಲಕ್ಷ್ಮಂಡಿಮಠ್,
13. ಶಿಕ್ಷಣದಲ್ಲಿ ತತ್ವಶಾಸ್ತ್ರ ಮತ್ತು ಸಮಾಜಶಾಸ್ತ್ರ - ಜಿ.ಎನ್. ಕೆಂಪಯ್ಯ
14. ಪ್ರಗತಿಶೀಲ ಭಾರತದಲ್ಲಿ ಶಿಕ್ಷಣ - ಪಿ. ನಾಗರಾಜ್
15. ಭಾರತ ಆರ್ಥಿಕ ಅಭಿವೃದ್ಧಿ - ಎಸ್.ಬಿ. ಯಾದವಾಡ
16. ಮೂಲ ಆರ್ಥಿಕ ಸಿದ್ಧಾಂತ - ಹೆಚ್.ಆರ್. ಕುಲಕರ್ಣಿ
17. ಆಧುನಿಕ ಶಿಕ್ಷಣ - ಹೆಚ್.ಆರ್. ಕುಲಕರ್ಣಿ
18. ವೃತ್ತಿ ಮಾರ್ಗದರ್ಶನ ಮತ್ತು ಶಿಕ್ಷಣದಲ್ಲಿ ಸಮಾಲೋಚನೆ - ಸಿ.ವಿ. ಜಯಣ್ಣ
19. ಶೈಕ್ಷಣಿಕ ಮನೋವಿಜ್ಞಾನ - ಕೆ.ಎನ್. ರಾಜಶೇಖರಯ್ಯ
20. ಶೈಕ್ಷಣಿಕ ಮಾರ್ಗದರ್ಶನ ಹಾಗೂ ಸಮಾಲೋಚನೆ - ವಿ.ಕೆ. ಹಂಪಿಹೊಳೆ
21. ಮಾರ್ಗದರ್ಶನ ಮತ್ತು ಸಲಹೆ - ಶಾಪೂರ್ ಎನ್.ಪಿ, ದಿನೇಶ್ ಚಂದ್ರ. ಟಿ.
22. ಪರಿಸರ ಶಿಕ್ಷಣ - ಹಾಗೂ ಅನಿಲ್ ಕುಮಾರ್. ಕೆ.ಎಸ್.
23. Six Psychological Studies. Anita Tenzer (Trans.), - ಎನ್.ಬಿ.ಕೊಂಗವಾಡ
24. The Process of Education. - ಆನಂದ್ ಕರಿಗಣ್ಣವರ್
25. Learning and memory: An integrated approach (2nded.). -Piaget, J.
26. Social Foundations of Thought and Action. -Bruner, J.
27. Child Development -Anderson, J. R.
28. Psychology for teachers. London: Macmillan/British Psychological Society. -Bandura, A.

29. Freedom to learn. Columbus, OH: Merrill. -Rogers, C.
30. Bright Air, Brilliant Fire: On the Matter of the Mind. -Edelman, G.
31. Cognition in the Wild. Cambridge, -Hutchins, E.
32. Wellsprings of Knowledge: Building & Sustaining the Sources of Innovation. -Leonard-Barton, D.
33. Mindstorms. -Papert, S.
34. The Fifth Discipline: The Art and Practice of the Learning Organization. New York: Doubleday. -Senge, P.M.
35. About Behaviorism. -Skinner, B.F.
36. Celebration of Neurons: An Educator's Guide to the Human Brain. Alexandria, VA: Association for Supervision and Curriculum Development. -Sylwester, R. A
37. Thought and Language. -Vygotsky, L.S.
38. Vygotsky and the Social Formation of Mind. -Wertsch, J.
39. Basic Ideas in Educational Psychology, -Agarwal J.C.
40. Advanced Educational Psychology -Mangal S.K.
41. Foundation of Educational Psychology - Shitaram Jayaswal
42. Advanced Education Psychology -B. Kuppuswamy
43. Psychology Essentials -John W. Santrock.
44. Psychological foundation of Education -N.K.Dutt
45. Advanced Educational psychology -S.S.Chauhan
46. Educational Psychology -S.S.Mathur
47. General Psychology -S.K.Mangal
48. Processes and Issues in Education -Bharat Booshan B.
49. Advanced Education psychology -Dandapani
50. Educational Thought and Practice -V.R. Taneja
51. Philosophical and Sociological foundations of Educations - S. K Murthy
52. Education- Compiled from the speeches and writings of Swamy Vivekananda - TS Avinashlingam
53. Illustrated oxford dictionary - Oxford University Press, Oxford, New York.
54. Educational Psychology, Educational Evaluation and Measurement - K Nischala
55. Psychological foundations of education - Sree Sebastive
56. Introduction to Sociology - W N Dandakar
- Vidyabhushan

- | | |
|---|---|
| 57. A text book of Educational Psychology | - Bhatia & Bhatia |
| 58. Child Growth and Development | - Elizabeth B Hurlock |
| 59. Educational Material | - Website |
| 60. Environmental education | - Dr. J.G. Roddannavar |
| 61. Environmental chemistry | - B.K. Sharma, H. Kaur |
| 62. Environmental education in pre service teacher education | - Ravindranath |
| 63. Educational and Vocational Guidance in Higher Education, | -Chauhan R.M. and Shukla S. P. |
| 64. Educational and Vocational Guidance in Secondary Schools, | -Kochar, S. K. |
| 65. Guidance and Counseling, | -Kaur S.S.G. |
| 66. Counseling and Guidance (II Edition), | -Narayana Rao. S. |
| 67. Educational Psychology & Guidance, | -Mangal S. K. |
| 68. Foundations of Guidance, | -Walia, J. S. |
| 69. Psychology of learning and Instruction | - H. V. Vamadevappa |
| 70. Educational Psychology, | - V. K. Hampiholi |
| 71. Psychology in Modern Education, | - DSERT |
| 72. Educational Guidance and counseling, | -Shahapur. N. P., Dinesh Chandra T. & Anilkumar K. S. |

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