

**PANIMALAR INSTITUTE OF TECHNOLOGY**  
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**Poonamallee, Chennai – 600123**

**QUESTION BANK**

**Subject: GE 8291-Environmental Science & Engineering: 2017R**

**(Common to II Semester CSE, EEE, Mech and IV Sem IT and ECE)**

**Unit I: Environment, Ecosystem and Biodiversity**

**Part – A**

1. **Where from the word environment is derived and what does it refer to? [Apr / May, 2019]**

*The word environment is derived from the French word “Environ” meaning “Surrounding. Each and everything around us is called as environment.*

2. **What is biodiversity and what is its significance? [Apr / May, 2019]**

*Biodiversity is defined as the variety and variability among all group of living organisms and the ecosystem in which they occur.*

***Significance of Biodiversity***

- *Biodiversity is very important for human life, as we depend on plants, micro-organism, and earth’s animals for our food, medicine and industrial products.*
- *Biodiversity protects the fresh air, clean water and productive land.*

3. **What do you understand by “species biodiversity”? Give one example. [Apr / May, 2017]**

*Species Diversity: The variability found within the population of species. i.e., Diversity between the species is species diversity.*

*For example: Cat, Lion, Tiger, Cheetah, Panther, Jaguar, and Leopard are different but belong to the same species called cat.*

4. **Define “keystone species with suitable example. [Apr / May, 2018]**

*Each species contributes to habitat functioning to some extent, but some species do more than others in the overall scheme of things. Without the work of these key species, the habitat changes significantly. These species are called **keystone species**.*

*Example: **Elephants are keystone species in grassland ecosystem***

5. **What are indicator species? Give example. [Apr / May, 2018]**

*An indicator species is an organism whose presence, absence or abundance reflects a specific environmental condition. Indicator species can signal a change in the biological condition of a particular ecosystem.*

**For example:**

- *Greasewood indicates saline soil.*
- *Mosses often indicate acid soil.*
- *Tubifex worms indicate oxygen-poor and stagnant water unfit to drink.*

6. **What is food chain? [Nov / Dec, 2019]**

**Food chain:** *The sequence of eating and being eaten in an ecosystem is known as food chain.*

**For example:** *(food chain in a grassland ecosystem)*

**Plants      rat      Snakes      Eagles**

7. **What is bio-diversity hotspot? Give examples. [Nov / Dec, 2018]**

*Bio-diversity hot spots are the geographical regions where the endemic species are present.*

*The main hot spots as far as India is concerned are Western Ghats and Eastern Himalayas.*

8. **Write the criteria to determine hotspot and name the hotspots in India. [Apr / May, 2019]**

*The primary criteria for recognizing a hot spot is the endemic species richness. The main hot spots as far as India is concerned are **Western Ghats and Eastern Himalayas.***

9. **What is an endangered species? Mention with suitable examples. [Nov / Dec, 2018]**

**Endangered Species:** *A species is said to be endangered when its number has been reduced to a critical level or whose habitats, have been drastically reduced.*

**For example:** *Indian wolf, red fox, sloth bear, red panda, tiger,*

10. **Define ecosystem. [Apr / May, 2019, Apr / May, 2018]**

*A group of organisms interacting among themselves, and with the environment is known as an ecosystem.*

11. **Write the various adaptive features of desert plants. [Apr / May, 2018]**

*Desert plants have developed three main adaptive strategies: Succulence, drought tolerance and drought avoidance.*

**12. How does a biome differ from an ecosystem?**

*A biome is a small ecosystem within an eco-system. i.e., an ecosystem within an ecosystem. **For example:** A pond in a forest ecosystem is an example of a biome. But an ecosystem is a group of organisms interacting among themselves and with the environment.*

**13. “India is a mega diversity nation” – Justify your answer.**

*Among the biologically rich nations, India stands among the top 10 or 15 countries for its great variety of plants and animals, many of which are not found elsewhere. India has 350 different mammals 1,200 species of birds, 453 species of reptiles and 45,000 plant species. It is estimated that 18% of Indian plants are **endemic** to the country and found nowhere else in the world. That is why, India is considered as a mega-diversity nation.*

**14. Write the important functions of an ecosystem. [Nov/Dec 2020, Apr/May 2021]**

**Primary function**

Photosynthesis: Manufacturing of starch

**Secondary function**

Distributing of energy in the form of food

**Tertiary function**

The dead systems are decomposed and initiating the cycling.

**15. What are the causes of threats to biodiversity? [Nov/Dec 2020, Apr/May 2021]**

Habitat loss

Poaching of wild life

Man –wild life conflicts

**Part – B**

1. Explain the structure and function of an ecosystem. [Nov / Dec, 2019]
2. With a neat diagram discuss the energy flow in ecosystem. [Apr / May, 2019]
3. Describe the types, characteristic features, structure and functions of (1) Desert & Grassland Ecosystem. [Apr / May, 2018]
4. Describe the types, characteristic features, structure and functions of (1) Forest Ecosystem and (2) Aquatic Ecosystem. (Nov/Dec 2020, Apr/May 2021)

5. What is ecological succession? Explain the different types of ecological Succession.  
[Apr / May, 2018]
6. Substantiate the value of biodiversity with suitable illustrations and statistical evidences.  
[Apr / May, 2018]. [Nov/Dec 2020, Apr/May 2021]
7. What do you understand by hot spots of biodiversity? Name and briefly describe two hot spots of biodiversity that exist in India.
8. Discuss the endangered and endemic species in India.
9. Discuss the various threats faced by Indian biodiversity.
10. Explain any ten control measures man-wildlife conflicts in detail. [Apr / May, 2018, Nov / Dec, 2018]
11. Explain in-situ and ex-situ conservation along with their merits and limitations. [Apr / May, 2018, Apr / May, 2018] [Nov/Dec 2020, Apr/May 2021]
12. Mention the role of an individual in conservation of natural resources. [Apr / May, 2019]

## Unit II: Environmental Pollution

1. Name any four air pollutants, and their sources and effects.

Name of the Pollutant	Source	Effect
<i>CO<sub>2</sub></i>	<i>burning of fossil fuels and deforestation</i>	<i>Global Warming</i>
<i>NO<sub>x</sub> (NO – Nitric Oxide and NO<sub>2</sub> – Nitrogen Dioxide)</i>	<i>burning of fossil fuels and biomass</i>	<i>Acid rain Lung damage</i>
<i>N<sub>2</sub>O – Nitrous Oxide</i>	<i>nitrogen based fertilizers, deforestation and biomass burning</i>	<i>Acid rain Lung damage</i>
<i>Sulphur</i>	<i>burning of sulphur-containing fuels</i>	<i>Breathing problem, acid rain</i>
<i>CFCs</i>	<i>spray cans, discarded or leaking refrigeration and air-conditioning equipment, and burning of plastic products.</i>	<i>O<sub>3</sub> layer depletion</i>

2. What is air pollution? [Apr / May, 2019]

*Alteration of the concentration of the constituents of air, due to addition of air pollutants is called air pollution. The air pollutants found in the atmosphere are oxides of carbon, oxides of sulphur, oxides of nitrogen, hydrocarbons, particulate matter and aerosols.*

3. **What are the major causes for the marine pollution?** [Apr / May, 2019, Apr / May, 2018]

*Waste Disposal:* Industrial wastes dumped into the oceans by means of injection bore wells spoils the marine ecosystem.

*Oil Spill:* Leakage of oil tankers and pipelines in the oceans causes oil spills in the oceans.

4. **What is particulate matter?** [Apr / May, 2018]

*Particulate matter is the sum of all solid and liquid particles suspended in air, many of which are hazardous. For example: Dust, pollen, soot, smoke and liquid droplets.*

5. **How is cyclone formed?** [Apr/May, 2017]

*Cyclone is formed when an intense depression forming over the open oceans is moving towards the land. When sea surface temperature is below 25 °C, tropical cyclones are formed and move like a spinning top at the speed of 10 -30 kms/hr.*

6. **What is called thermal pollution?** [Apr / May, 2019]

*Thermal pollution is defined as the addition of excess of undesirable heat to water that makes it harmful to aquatic life and cause significant changes in normal activities of aquatic communities is known as thermal pollution.*

7. **Define ‘noise pollution’. (or) How does a sound cause noise pollution?** [Apr/May, 2018]

*The unwanted, unpleasant or disagreeable sound that causes discomfort for all living beings is known as noise pollution. If sound goes beyond 80 dB or more then it causes noise.*

8. **Mention the effects of nuclear wastes in humans.** [Apr/May, 2017]

- *Radio nuclide iodine - 131 accumulate in the thyroid gland and affects the metabolic activities.*
- *Nuclear bomb is described as the ultimate weapon of destruction. When the bomb is exploded, the neutrons travel long distance at bullet speed and kill everyone in its path within a day, generally in a few hours.*

9. **What do you understand by the term “soil pollution”?**

*Degradation of soil and land due to industrial, agricultural and by other human activities is called soil or land pollution.*

10. **State the role and responsibility of an individual in the prevention of pollution.**

[Nov/Dec 2020, Apr/May 2021]

- *Plant more trees*
- *Purchase recyclable, recycled and environmentally safe products*
- *Use natural gas than coal*
- *Use CFCs free refrigerators*

11. **Specify the effects of air pollution.** [Nov/Dec 2020, Apr/May 2021]

**Health effects:** Breathing problems: Cough, Heart diseases: Eye, nose and throat irritation

**Environmental effects:** reduce visibility, affects trees, buildings, increase global temperature, carcinogenic.

**Part – B**

1. Explain the causes, effects and control measures of water pollution. [Apr / May, 2019, Apr / May, 2018 ]
2. Enlist the rules of management and handling biomedical waste and analyze critically the problems associated with the implementation. [Apr / May, 2017, Part C]
3. What are the effects of improper municipal solid wastes management? State the measures recommended for proper management of the solid wastes.
4. Explain the concept of source, path receiver in the control of noise pollution. [Apr / May, 2017]
5. What is earthquake? Enumerate its effects. What measures should be taken to mitigate their disaster?
6. With a flow diagram explain the Activated sludge process for waste water treatment.
7. Explain the causes, effects and control measures of air pollution.
8. Explain the causes, effects and control measures of marine pollution. [Apr / May, 2019, Part C]
9. Explain the causes, effects and control measures of thermal pollution.
10. Explain the causes and effects of soil pollution. [Apr / May, 2019] [Nov/Dec 2020, Apr/May 2021]

11. What is nuclear hazard? Explain the causes, effects and control measures of nuclear pollution.
12. What are the roles of an individual in prevention of pollution? Explain. [**Apr / May, 2019, Apr / May, 2018**]
13. Give a case study of any anthropogenic (man-made) pollution disaster (a) known to you and discuss the effects of these on the environment (including to human population) in which they happened. [ **Apr / May, 2018, Part C**] (Hint: Chernobyl and Bhopal gas tragedy)
14. Elaborate on the causes and impacts of noise pollution and thermal pollution. [**Nov/Dec 2020, Apr/May 2021**]
15. summarize on the importance of disaster management with respect to floods and cyclone based on the recent incidents happened in Kerala and Tamil Nadu[**Nov/Dec 2020, Apr/May 2021**]

### **Unit III: Natural Resources**

#### **Part – A**

1. **Outline the fertilizer-pesticide problems.** [**Apr / May, 2019**]  
*The fertilizer related problems are micronutrient imbalance, nitrate pollution and eutrophication.*
2. **Write any two adverse effects caused by overgrazing.** [**Apr / May, 2019**]  
*Land degradation, Soil erosion and Loss of useful species (any two)*
3. **Define eutrophication.** [**Apr / May, 2019**]  
*Excessive use of N and P fertilizers in the agricultural fields leads to another problem, which is not related to the soil but relates to the water bodies like lakes. A large proportion of nitrogen and phosphorous used in the crop field is washed off and along with run-off water reach the water bodies causing over nourishment of the lakes, a process known as Eutrophication.*
4. **What are renewable and non-renewable resources?** [**Apr / May, 2019, Nov / Dec, 2019**]  
***Renewable energy resources:** Resources which can be generated continuously in nature and are not inexhaustible. Eg: Wood, Solar energy, wind energy, tidal energy, hydro power energy, biomass energy, bio-fuel, geo-thermal energy.*

**Non-renewable energy resources:** Resources which have accumulated in nature over along span of time and cannot be quickly replenished when exhausted. Eg: Coal, Petroleum, natural gas and nuclear fuels like uranium and thorium.

5. **What is habitat fragmentation?** [Nov / Dec, 2019]

Sometimes the habitat is divided into small and scattered patches. This phenomenon is known as habitat fragmentation. This may be due to either forest fire (either man-made or natural) or some other man-made activities.

6. **Write about afforestation.**[Nov / Dec, 2019]

**Afforestation:** It is the process of planting and growing forests. It usually takes place in areas that have lost their trees.

7. **List some ways to protect the soil.** [Apr / May, 2018]

Reforestation, Till farming, Contour farming, Terrace farming, Alley cropping / Agro-Forestry and Fallowing.

8. **Define the term “Man-induced landslides”.** [Apr / May, 2018]

Movement of earthy materials from higher region to lower region due to gravitational force is known as landslides. Sometimes, the landslide disaster may also happen due to human activities, then it is called “**Man-induced landslides**”.

9. **What is desertification? Give any two reasons for it.** [Nov / Dec, 2018]

The loss of productivity of soil as a consequence of degradation or pervasive dryness is called desertification.

**Reasons:** Deforestation, overgrazing, mining and quarrying

10. **Write any two problems caused by high saline soils.** [Apr / May, 2017]

- Salinity can decrease plant growth and water quality.
- Excess salt affects overall soil health, reducing productivity.
- It kills plants leaving bare soil that is prone to erosion.

11. **Differentiate between deforestation and forest degradation.**

**Deforestation:**

- Deforestation is defined as the destruction of forest or elimination of forest resources due to many natural or man-made activities.
- Cannot be recovered

**Forest Degradation:**

- *It is the process of deterioration of forest materials.*
- *It can be recovered.*

**12. Enumerate the desired qualities of an ideal pesticide.**

*An ideal pesticide must kill only the target species*

*It must be biodegradable*

*It should not produce new pests*

*It should not produce any toxic pesticide vapor*

**12. State the benefits of dam [Nov/Dec 2020, Apr/May 2021]**

Control flood, store flood water,  
used for drinking and agriculture purpose  
to generate electricity  
for recreational purpose

**13. Specify about the effects of practicing modern agriculture [Nov/Dec 2020, Apr/May 2021]**

Water logging, salinity, micro nutrient imbalance, eutrophication, bio magnification

**Part – B**

1. What are the ecological benefits of forests, explain the environmental impacts of deforestation? [Apr / May, 2017]
2. What is deforestation? Enumerate and discuss the various effects of deforestation. [Apr / May, 2018]
3. Discuss the impacts of handling the mineral resources for extraction and subsequent utilization, on the environment. [Apr / May, 2019, Apr / May, 2018, Apr / May, 2017 (Part C)]
4. Explain any two conflicts over water, confining to our nation.
5. Explain the adverse environmental impacts of modern agriculture. [Apr / May, 2017]
6. Explain the role of an individual in the conservation of natural resources. [Apr / May, 2018]
7. What are the measures recommended for conservation of natural resources? [Apr / May, 2018]
8. Discuss briefly on the consequences of overdrawing of ground water. [Apr / May, 2019]
9. Give a brief account of renewable energy resources and their significance. [Nov / Dec, 2018]
10. Explain the process of generation and utilization of surfaces water and ground water. [Nov/Dec 2020, Apr/May 2021]

11. summarize on the importance of utilization of bio gas and bio fuel in the energy sectors.

[Nov/Dec 2020, Apr/May 2021]

### Unit IV: Social Issues and Environment

#### Part – A

1. **What is meant by wasteland reclamation?** [Nov / Dec, 2019]

*Wasteland reclamation is the process of turning barren, sterile wasteland into something that is fertile and suitable for habitation and cultivation.*

2. **What are the major effects of global warming?** [Nov / Dec, 2019]

*The slight increase of earth's surface temperature, i.e., even by 1 °C can have the following adverse effects,*

- *Global warming creates melting of mountain glaciers and polar ice and hence sea level will rise and most of the coastal cities will submerge under sea.*
- *Global warming leads to declining of biodiversity.*

3. **Rainwater harvesting is the need of the hour – Comment.** [Nov / Dec, 2019]

*Since the monsoon is skipping due to several environmental problems and as we encounter several inter-state, international conflicts over water, unless we save water for the future use it will be a great threat to our biodiversity and our economy especially a developing country like India. Hence rain water harvesting is the need of the hour.*

4. **What are the causes and effects of ozone layer depletion?** [Apr / May, 2019]

*Causes: Chlorofluoro carbons and Bromofluorocarbons present in the atmosphere are the causes of ozone layer depletion.*

*Effects:*

- *The UV-rays damage genetic materials in the skin cells which cause skin cancer*
- *The ozone depleting chemicals can contribute to the global warming.*

5. **What is a nuclear holocaust?** [Apr / May, 2019]

*It means destruction of biodiversity by nuclear equipments and nuclear bombs. **In a holocaust, a large number of living beings are totally destroyed.** Usually, this kind of destruction happens during a nuclear war.*

6. **State the environmental ethics.** [Apr / May, 2019, Apr / May, 2018]

*The environment ethics literally means the discipline that deals with the moral relationship of human beings to, and also the value and moral status of the environment and its non-human contents.*

**7. Define e-waste. [Apr / May, 2018]**

*E-waste: Comprises of types of waste from electronic and electrical equipment.*

*In modern world, we are using several electronically powered items like computers, printers, fax machines, mobile phones, Xerox machines, scanners, calculators, etc.*

**8. Define acid rain. [Nov / Dec, 2018]**

*Oxides of sulphur, nitrogen and hydrocarbons are concentrated in the atmosphere due to industrial activities, decay of organisms and volcanic activities etc. After reacting with water and  $O_2$  in the presence of sunlight, the above gases are converted into  $H_2SO_4$ ,  $HNO_3$ , and  $HCl$  respectively. This reaches the earth's surface in the form of rain fall is called acid rain. If the pH falls below 5.6, then it is an acid rain.*

**9. Define the term sustainable development. [Apr / May, 2018]**

*Sustainable development: Improving the quality of human life while living within the carrying capacity of supporting eco-systems. (Very precisely any development without exhausting the natural resources)*

**10. Write the various uses of sustainable development indicators? [Apr/May, 2018]**

*Sustainable development indicators are statistics that are used to measure social equity, economic growth, institutional capacity, and environmental protection to ascertain the different dimensions are levels of sustainable development.*

**11. What do you know about watershed? [Apr / May, 2018]**

*A watershed, also called a drainage basin, is a region from which water drains into a stream, lake, reservoir or other body of surface water. Ex: Himalayas are one of the most critical watersheds in the world.*

**12. When does rehabilitation arise? Mention any one problem to government during rehabilitation. [Apr/May, 2017]**

*Rehabilitation arises due to land requirement by the government for various reasons.*

*Problem to Government:*

- (i) Provision for each compensation in lieu of land*
- (ii) Government need to serve notice to the people to vacate their land*
- (iii) People may not be satisfied with compensation given by the Government*

**13. State a few drawbacks of Pollution related Acts.**

- *The penalties in the act is very small when compared to the damage caused by the big industries due to pollution*
- *A person cannot directly file a petition in the court*

**14. Mention about the advantages and disadvantages of nuclear energy [Nov/Dec 2020, Apr/May 2021]**

Advantages

produce electricity, used in agriculture, medicinal field, produce drinking water

disadvantages

cancer, loss of fertility, skin problems, eye problem,

**15. State about the role of state pollution control board [Nov/Dec 2020, Apr/May 2021]**

Advises the state government concern to prevention of pollution

It has the right to inspect industries, equipment

Encourages research and investigations

Organizes educational programme

**Part – B**

1. What is sustainable development? Discuss the agenda for sustainable development. **[Nov / Dec, 2019]**
2. Write a detailed account on water conservation, rain water harvesting and watershed management. **[Apr / May, 2019, Apr / May, 2018]**
3. What are resettlement and rehabilitation of people? **Explain. [Nov / Dec, 2019]**
4. Explain the scope of the subject of environmental ethics and discuss the moral issues associated with the extinction of species.
5. Explain the following: 1. Ozone depletion 2. Global warming **[Apr / May, 2018, Apr / May, 2019]**
6. Explain the following: 1. Wildlife Protective Act 2. Forest Preservative Act. **[Apr / May, 2019]**
7. What are the salient features of the following acts 1. The Air (Prevention and Control of pollution) Act, 1981 and 2. The Environment (Protection) Act 1986. **[Nov / Dec, 2019, Nov / Dec, 2018, Apr / May, 2017]**

8. Explain the mechanism of formation of acid rain.
9. What are Ozones? Discuss the possible mechanism of stratospheric ozone depletion.  
[Apr / May, 2019, Apr / May, 2018]
12. summarize on the sustainable practices required with respect to water conservation, rain water harvesting and watershed management [Nov/Dec 2020, Apr/May 2021]
13. Write about the water (prevention and control of pollution) act and Wildlife protection act [Nov/Dec 2020, Apr/May 2021]

## Unit V: Human Population and Environment

### Part – A

1. **Outline the effects of population explosion.** [Apr / May, 2019, Apr / May, 2018]  
[Nov/Dec 2020, Apr/May 2021]
  - *Many of the renewable resources like forests, grass lands are also under threat*
  - *Lack of basic amenities like water supply and sanitation, education and health etc.*
2. **What is ‘population explosion’?** [Apr / May, 2018, Nov / Dec, 2018]  
*The enormous increase in population, due to low death rate (mortality) and high birth rate (natality), is termed as population explosion.*
3. **How population density is calculated?** [Apr / May, 2019]  
 $P_{t+1} = P_t + (B - D) + (I - E)$   
*Where,  $P_{t+1}$  and  $P_t$  - sizes of population in an area at two different points in time  $t$  and  $t + 1$ ,  $B$  = Birth rate;  $D$  = Death rate;  $I$  = Immigration and  $E$  = Emigration.*
4. **What is meant by human demography?**  
*There occurs a typical fall in death rates and birth rates due to improved living conditions leading to low population growth, a phenomenon called human demography.*
5. **Define Doubling Time with reference to population growth.**  
*Doubling Time: It is the time required for a population to double its size at a constant annual rate. It is calculated as follows*  
$$Td \text{ (Doubling Time)} = 70 / r$$
  
*Where,  $r$  = annual growth rate*  
*If a nation has 2% annual growth, its population will double in next 35 years*

6. **What is value education?** [Apr / May, 2019, Apr / May, 2017]

*Value education is an instrument used to analyze our behavior and to provide proper direction to our youths.*

7. **What are the reasons behind the increased population growth in the less developed nations compared with developed nations?**

- *The rapid population growth is due to decrease in death rate and increase in birth rate*
- *The availability of antibiotics, immunization, increased food production, clean water and air, decrease in the famine-related deaths and infant mortality*

8. **Write about major functions of Family Welfare Programmes in India.** [Nov / Dec, 2019]

- *The department formulates plans, policies and programmes. Enacts/amends legislation, guides and coordinates the efforts of both governmental and non-governmental organization working in the field of women and child development.*
- *These programmes cover welfare and support services, training for employment and income generation, awareness generation and gender sensitization.*

9. **Mention any two Family Welfare Programmes adopted in India.** [Apr / May, 2017] (Hint: Write any two in Q. No. 9 in Part B)

- i. *Maternal and Child Health (MCH)*
- ii. *Universal Immunization Programme*

10. **Differentiate between HIV and AIDS.**

*HIV: Human immune deficiency virus. It's a virus*

*AIDS: Acquired immune deficiency syndrome. It's a disease*

11. **Name some tests available to find HIV infection.** [Apr / May, 2018]

- *ELISA (Enzyme-Linked Immuno Sorbent Assay)*
- *Western Blot (is the most common test used to confirm positive results from an ELISA)*

12. **Write about Environmental Impact Analysis.** [Nov / Dec, 2018]

*EIA is defined as a formal process of predicting the environmental consequences of any development projects. It is used to identify the environmental, social and economic impacts of the project prior to decision making.*

13. Define 'GIS-remote sensing'. [Apr / May, 2019, Apr / May, 2018]

*GIS is a system of hardware, software and procedures designed for support, capture, management, manipulation, analysis, modeling and display of spatially referred data for solving complex planning and management problems.*

*Remote sensing refers to any method, which can be used to gather information about an object without actually coming in contact with it. Application of remote sensing is otherwise called GIS.*

14. Specify the importance towards the consideration of women and child welfare [Nov/Dec 2020, Apr/May 2021]

It is used to improve the status of women by providing opportunities in education, employment and economic independence.

## Part – B

1. Discuss the factors influencing family size.
2. Draw a typical population pyramid of a developing country and discuss how it is likely to differ from that of a developed country.
3. Discuss the role of Information Technology in the protection of Environment and human health. [Apr / May, 2019 (Part C), Nov / Dec, 2019, Apr / May, 2018, Nov / Dec, 2018, Apr / May, 2017] [Nov/Dec 2020, Apr/May 2021]
4. Write a short note on: Value Education.
  14. Define Human Rights and discuss the salient features of the Universal Declaration of Human Rights by UN. [Apr / May, 2019] [Nov/Dec 2020, Apr/May 2021]
5. Discuss the methods and strategies of imparting value education. [Apr / May, 2018]
6. Differentiate between HIV and AIDS, explain the pragmatic measures to prevent the transmission of HIV in India. [Nov / Dec, 2019, Apr / May, 2018, Nov / Dec, 2018, Apr / May, 2017]
7. What do you mean by environmental impact analysis? What are the methods followed for EIA? [Apr / May, 2017]
8. Write short notes on the following family welfare programmes in India. [Apr / May, 2019, Apr / May, 2018]
  - i. Maternal and Child Health (MCH)
  - ii. Universal Immunization Programme

- iii. Child Survival and Safe Motherhood Project
- iv. India Population Project (IPP)