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**ZEAL POLYTECHNIC, PUNE**

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DEPARTMENT OF COMPUTER ENGINEERING

**THIRD YEAR (TY)**

**SCHEME: I**

**SEMESTER: V**

**NAME OF SUBJECT: ENVIRONMENTAL STUDIES**

**Subject Code: 22447**

**UNIT WISE MULTIPLE CHOICE  
QUESTIONS BANK**



**Question Bank for Multiple Choice Questions**

<b>Program: Diploma in Computer Engineering</b>	<b>Program Code:- CO</b>
<b>Scheme:-I</b>	<b>Semester:- V</b>
<b>Course:- Environmental Studies</b>	<b>Course Code:- 22447</b>

<b>01 – Environment</b>	<b>Marks:-10</b>
<b>Content of Chapter:-</b> 1.1 Definitions, Need of environmental studies 1.2 Segments of environment- Atmosphere,Hydrosphere,Lithosphere,Biosphere 1.3 Environmental issues- Green house effect,Climate change,Global warming,Acid Rain,Ozone layer depletion,nuclear accidents. 1.4 Concept of 4R( Reduce,Reuse,Recycle and Recover) 1.5 Public awareness about Environment.	

**1.Nuclear accidents \_\_\_\_\_global temperature.**

- a) Increase
- b) Decrease
- c) Multiply
- d) None

**Answer: - Option A**

**Explanation:-**Nuclear accidents causes decrease in temperature.

**2.Environmental education is important only at**

- a) Primary school stage
- b) Secondary school stage
- c) Collage stage
- d) All of the above

**Answer: - Option D**

**Explanation:-**Environmental education is important at all stage.

**3.The 4Rs principle is applicable for...**

- a) Public awareness
- b) Environmental protection
- c) Saving natural resources
- d) All of the above

**Answer: - Option D**

**Explanation:-**The 4Rs principle is applicable for Public awareness,Environmental protection and Saving natural resources



**4. Ozone layer is found in ....**

- a) Thermosphere
- b) Stratosphere
- c) Troposphere
- d) Mesosphere

**Answer:** - Option B

**Explanation:-** Ozone layer is found in Stratosphere.

**5. Which one of the following is an abiotic component of the ecosystem?**

- a) Bacteria
- b) plants
- c) humus
- d) Fungi

**Answer:** - Option C

**Explanation:-** Humus is an abiotic component of the ecosystem

**6. Major cause of increment in population growth is.....**

- a) decrease in birth rate
- b) decrease in mortality rate
- c) Illiteracy
- d) none of the above

**Answer:** - Option D

**Explanation:-** decrease in mortality rate is a Major cause of increment in population growth.

**7. Zone consisting air, water and soil is known as....**

- a) Atmosphere
- b) Hydrosphere
- c) Biosphere
- d) Lithosphere

**Answer:** - Option C

**Explanation:-** Zone consisting air, water and soil is known as Biosphere.



**8.Abiotic environment does not include**

- a)Air
- b)Water
- c)Soil
- d)Plants

**Answer: - Option D**

**Explanation:-**Abiotic environment means non-living things.

**9.Physical environment is also called as...**

- a) Abiotic environment
- b) Biotic environment
- c) Man made environment
- d) Psychological environment

**Answer: - Option A**

**Explanation:-**Physical environment is also called as Abiotic environment

**10. The production of biogas from the waste is includes in.....**

- a) Reduce
- b) Reuse
- c) Recycle
- d) Recover

**Answer: - Option D**

**Explanation:-**The production of biogas from the waste is includes in Recover

**11. \_\_\_\_% of the Earth's surface is covered with water.**

- a) 20
- b) 80
- c) 71
- d) 100

**Answer: - Option C**

**Explanation:-**71 % of the Earth's surface is covered with water.



**12. Formation of Ozone is?**

- a) Oxidation Reaction
- b) Reduction Reaction
- c) Photochemical Reaction
- d) None of the above

**Answer:** - Option C

**Explanation:-**Formation of Ozone is Photochemical Reaction

**13. The environment which has been modified by human**

- a) Natural environment
- b) Anthropogenic environment
- c) Modern environment
- d) Urban environment

**Answer:** - Option C

**Explanation:-**The environment which has been modified by human is Anthropogenic environment

**14. One of the following is not a type of environment.**

- a) Physical environment
- b) Man made environment
- c) Social environment
- d) Hydrosphere

**Answer:** - Option D

**Explanation:-**Hydrosphere is not a type of environment.

**15. O<sub>3</sub> is known as...**

- a) Atmosphere
- b) Ozone
- c) Oxygen
- d) All of these

**Answer:** - Option B

**Explanation:-**O<sub>3</sub> is known as Ozone



16. Environmental education emphasises on \_\_\_\_\_

- a) Air
- b) Water
- c) Environmental issues
- d) None

**Answer:** - Option C

**Explanation:-**Environmental education emphasises on Environmental issues

17. Our natural environment has \_\_\_\_\_ and \_\_\_\_\_ values.

- a)Qualitative and quantitative
- b)Preservation and conservation
- c)Utilization and recreation
- d)None of the above

**Answer:** - Option A

**Explanation:-**Our natural environment has Qualitative and quantitative values.

18. Land covers up only \_\_\_\_\_% of the earth"s surface

- a) 10
- b) 29
- c) 40
- d) 30

**Answer:** - Option B

**Explanation:-**Land covers up only 29 % of the earth"s surface

19. The production of biogas from the waste is includes in.....

- a)Reduce
- b)Reuse
- c)Recycle
- d)Recover

**Answer:** - Option D

**Explanation:-**The production of biogas from the waste is includes in Recover



**20. The 4Rs principle is applicable for...**

- a)Public awareness
- b)Environmental protection
- c)Saving natural resources
- d)All of the above

**Answer: - Option D**

**Explanation:-**The 4Rs principle is applicable in all areas.

**21. Ozone layer is found in ....**

- a)Thermosphere
- b)Stratosphere
- c)Troposphere
- d)Mesosphere

**Answer: - Option B**

**Explanation:-**Ozone layer is found in Stratosphere.

**22. Which one of the following is an abiotic component of the ecosystem?**

- a) Bacteria
- b) plants
- c) humus
- d) Fungi

**Answer: - Option C**

**Explanation:-**Humus is an abiotic component of the ecosystem

**23. Which of the following is the example of impact of development activities on Hydrosphere?**

- a) Air Pollution
- b) Soil Pollution
- c) Noise Pollution
- d) Water Pollution

**Answer: - Option D**

**Explanation:-**Water Pollution is impact of development activities on Hydrosphere

**24. Nuclear accidents\_\_\_\_\_global temperature.**

- a)Increase
- b)Decrease
- c)Multiply
- d)None

**Answer: - Option A**

**Explanation:-**Nuclear accidents causes decrease in temperature.

**25. The Environmental awareness starts with**

- a)Country
- b)State
- c)Individual
- d)None of these

**Answer: - Option C**

**Explanation:-**The Environmental awareness starts with Individual

**26. For sustainable development\_\_\_\_\_R are followed**

- a)5
- b)2
- c)4
- d)3

**Answer: - Option C**

**Explanation:-**For sustainable development 4 R are followed

**27. The amount of solar radiation reaching the surface of the earth is called as**

- a) Solar flux
- b)Reflected light
- c)Minerals
- d)solvents

**Answer: - Option B**

**Explanation:-**The amount of solar radiation reaching the surface of the earth is called as Reflected light

**28. Acid rain occurs due to dissolution of\_\_\_\_\_in rain water**

- a)Gases
- b)Particles
- c)Smoke
- d)Soot

**Answer: - Option A**

**Explanation:-**Acid rain occurs due to dissolution of gases in rain water





**29. Hydrosphere covers about \_\_\_\_\_ of the surface of earth**

- a)70%
- b)90%
- c)60%
- d)50%

**Answer: - Option A**

**Explanation:-**Hydrosphere covers about 70 % of the surface of earth

**30. Color of ozone molecule is**

- a)Pale Blue
- b)White
- c)Pale Yellow
- d)Pale Green

**Answer: - Option A**

**Explanation:-**Color of ozone molecule is Pale Blue

**31. Major cause of Ozone depletion is due to which chemical ?**

- a)Chlorofluorocarbons
- b)Polyphenols
- c)Dioxins
- d)None of the above

**Answer: - Option A**

**Explanation:-**Major cause of Ozone depletion is due to Chlorofluorocarbons

**32. Acid rain contains.....**

- a) Sulphuric acid
- b) Hydrochloric acid
- c) Oxalic acid
- d) Acetic acid

**Answer: - Option A**

**Explanation:-**Acid rain contains Sulphuric acid

**33. Biosphere is**

- a) The solid shell of inorganic materials on the surface of the Earth
- b)The thin shell of organic matter on the surface of earth comprising of all the living things
- c)The sphere which occupies the maximum volume of all the spheres
- d)All of the above

**Answer: - Option B**

**Explanation:-**Biosphere is The thin shell of organic matter on the surface of earth comprising of all the living things.



**34. The portion of the earth and its environment which can support life is known as**

- a) Crust
- b) exosphere
- c) Biosphere
- d) Mesosphere

**Answer:** - Option C

**Explanation:-**The portion of the earth and its environment which can support life is known as Biosphere

**35. How is the atmosphere, hydrosphere and lithosphere connected ?**

- a) Hydrological cycle
- b) Nitrogen cycle
- c) Oxygen cycle
- d) Carbon cycle

**Answer:** - Option D

**Explanation:-**By using Carbon cycle atmosphere, hydrosphere and lithosphere connected

**36. Exchange of outgoing and incoming radiations that keep Earth warm is known as**

- a) greenhouse effect
- b) radiation effect
- c) infrared effect
- d) ozone layer depletion

**Answer:** - Option A

**Explanation:-**Exchange of outgoing and incoming radiations that keep Earth warm is known as greenhouse effect

**37. Public awareness of environment creates -----**

- a) Environment protection
- b) Environment degradation
- c) Environmental improvement
- d) Environmental cultivation

**Answer:** - Option A

**Explanation:-**Public awareness of environment creates Environment protection .

**38. Biotic environment includes**

- a) producers
- b) Consumers
- c) Decomposers
- d) All above
- e) **Answer:** - Option D

**Explanation:-**Biotic environment includes producers ,Consumers and Decomposers.

**39. What type of radiation is trapped on the earth's surface by the green house effect?**

- a) UV rays
- b) ? -rays
- c) X-rays
- d) IR rays

**Answer: - Option A**

**Explanation:-**UV radiation is trapped on the earth's surface by the green house effect

**40. The 4Rs principle is applicable in...**

- a) Agriculture areas
- b) Industrial areas
- c) Municipal areas
- d) All of the above

**Answer: - Option D**

**Explanation:-**The 4Rs principle is applicable in all areas.

**41. DDT is a pesticide which is**

- A. Not soluble in water
- B. More soluble in fat than water
- C. Less soluble in fat than water
- D. Not soluble in fat

**Answer : B**

**42. National Science Day is celebrated on**

- A.22 Feburary
- B.28 Feburary
- C.26 Feburary
- D.27 Feburary

**Answer : B**

**43. Environmental friendly products are given ISO certification called ISO.**

- A.12000
- B.13000
- C.14000
- D.15000

**Answer : C**

**44. A sudden uncontrolled descent of a mass of earth under the force gravity is called**

- A. soil erosion
- B. mining
- C. earth quake
- D. landslide

**Answer : D**

**45. Public awareness can be generated by**

- A. Campaigns
- B. Posters
- C. Mass Media
- D. All of the above

**Answer : D**

**46. Along with government,\_\_\_\_\_are also found effective to educate people regarding environment protection.**

- A. Company
- B. School
- C. None of above
- D. NGOs

**Answer : D**

**47. The study of living organisms with the environment is known as \_\_\_\_\_**

- A. Ecosystem
- B. Environment
- C. Community
- D. Ecology

**Answer : D**

**48. The word „Environment“ is derived from**

- A. Greek
- B. French
- C. Spanish
- D. English

**Answer : B**



**49. WWF stands for**

- A. World Wildlife fund for Nature
- B. World Wildlife found in Nature
- C. World Wide fund for Nature
- D. World Wide fund for Wildlife

**Answer : C**

**50. The collection of the same species within an area is called a population.**

- A. True
- B. False

**Answer : A**

**51. World environment day is on**

- A.5 May
- B.5 June
- C.18 July
- D.16 August

**Answer : B**

**52. Social awareness encourages people to use**

- A. Biomass and solar energy
- B. Fossil fuel
- C. Both A & B
- D. Electricity

**Answer : A**

**53. Rain fall is measured in..... units**

- A. Pounds
- B.mm/cms
- C. Kg/Tons
- D. Metres

**Answer : B**

**54. Conservation of forests by planting trees is**

- A. Afforestation
- B. None of the above
- C. Reforestation
- D. Deforestation

**Answer : A**



**55. Environmental Studies means**

- A. is an interdisciplinary academic field
- B. includes the natural environment, built environment, and the sets of relationships between them
- C. methodically studies human interaction with the environment
- D. all of the above

**Answer : D**

**56. Environmental degradation is due to**

- A. rapid industrialization
- B. deforestation
- C. growing urbanization
- D. all above

**Answer : D**

**57. Non-Governmental Organizations**

- A. are located primarily in more developed countries
- B. have become a powerful aspect of environmental protection
- C. Work for a social change
- D. All of the above

**Answer : D**

**58. Addition of contaminants to atmosphere causing disturbance in natural condition \_\_\_\_\_**

- A. Polluter
- B. Polluting
- C. Pollution
- D. Pollutant

**Answer : C**

**59. The Unlimited exploitation of nature by human being has not resulted in**

- A. Health Problem
- B. Decrease in biodiversity
- C. Tsumanis
- D. Environmental pollution

**Answer : C**

**60. Acid rain occurs due to dissolution of \_\_\_\_\_ in rain water**

- A. Smoke
- B. Particles
- C. Gases
- D. Soot

**Answer : C.**



**61. The unlimited Exploitation of Nature by Human being resulted in..**

- A. Environmental pollution
- B. Health Problems
- C. decrease in biodiversity
- D. all the given

**Answer : D**

**62. The conservation of natural resources**

- A. Was not encouraged in ancient India
- B. was encouraged in ancient india.
- C. Is recently being used in India
- D. None of these

**Answer : B**

**63. The Global Action plan adopted at Earth summit held at Rio de Janeiro in June 1972 is also known as**

- A. Agenda 20
- B. Agenda 22
- C. Agenda 23
- D. Agenda 21

**Answer : D**

**64. Environmental Issues are discussed and solved in subject**

- A. Sociology
- B. Economics
- C. EVS
- D. None of the above

**Answer : C**

**65. As per the French word Environner means**

- A. Atmosphere
- B. Earth & Sun
- C. Encircle & Surround
- D. Earth & Energy

**Answer : C**

**66. USCB is short form for**

- A. United states Census Bureau
- B. United states Community Bureau
- C. United Society for Communist & Beaurocrates
- D. None of the above

**Answer : B**





**67. Earth Day is on**

- A. Jan-22
- B. Feb-22
- C. Mar-22
- D. Apr-22

**Answer : D**

**68. Environmental Studies:**

- A. is an interdisciplinary academic field
- B. methodically studies human interaction with the environment
- C. includes the natural environment, built environment, and the sets of relationship between them
- D. all of the above

**Answer : D**

**69. Environmental Studies does not involve:**

- A. psychology
- B. demography
- C. ethics
- D. literature

**Answer : D**

**70. Which of the following global trend is of great concern for the future of our environment?**

- A. degradation of fertile soils
- B. change in the global atmosphere
- C. species extinction leading to the loss of biodiversity
- D. All of the above

**Answer : D**

**71. High level radioactive waste can be managed in which of the following ways?**

- A. Open dumping
- B. Composting
- C. Incineration
- D. Dumping in sealed container

**Answer : D**

**72. The objective of environmental education is**

- A. Raise consciousness about environmental education
- B. To teach environmentally appropriate behaviour
- C. Create an environmental ethic that fosters awareness about ecological inter-dependence of economics, social and political
- D. All of the above

**Answer : D**





**73. Which of the following is an example of impact of development activities on the Hydrosphere?**

- A. Air pollution
- B. Noise pollution
- C. Soil erosion
- D. Water pollution

**Answer : D**

**74. Important abiotic factor in environment include which of the following?**

- A. Temperature
- B. Wind
- C. Water
- D. All of the above

**Answer : D**

**75. Atmosphere may extends to a height of .....km above the earth surface**

- A) 80
- B) 8000
- C) 800
- D) 8

**Answer : C**

**76. Which of the following is the correct sequence of 4Rs principle in waste hierarchy?**

- A. Reduce-Reuse-Recycle-Recover
- B. Recover-Recycle-Reuse-Reduce
- C. Recycle - Recover - Reuse- Reduce
- D. Reuse-Recover-Reduce - Recycle

**Answer : A**

**77.. Why carbon dioxide is called a greenhouse gas?**

- a) Because they absorb heat
- b) Because they absorb moisture
- c) Because they absorb oxygen
- d) Because they absorb hydrogen

**Answer: a**

**Explanation:** Carbon dioxide, water vapor, methane, ozone, nitrous oxide, and fluorinated gases are examples of greenhouse gases. Because they absorb heat, these molecules in our atmosphere are known as greenhouse gases.

**78. Which of the following statements means water vapor?**

- a) Water vapor is the gaseous phase of water
- b) Water vapor is the liquid phase of water
- c) Water vapor is the solid phase of water
- d) All of the mentioned

**Answer: a**



**Explanation:** Water vapor or aqueous vapor is the gaseous phase of water. It is one state of water within the hydrosphere. Water vapor can be produced from the evaporation or boiling of liquid water or from the sublimation of ice. Water vapor is transparent, like most constituents of the atmosphere.

**79. Which of the following is a renewable source of energy?**

- a) Ocean currents
- b) Solar energy
- c) Biomass
- d) All of the above

**Answer: d**

**Explanation:** Solar energy, wind, falling water, the earth's heat (geothermal), plant materials (biomass), waves, ocean currents, temperature differences in the oceans, and the energy of the tides are all renewable resources.

**80. The size of the particles categorized as aerosols?**

- a) Less than 0.01 micron
- b) Greater than 1 micron
- c) Less than 1 micron
- d) Between 0.01-1 micron

**Answer: d**

**Explanation:** Aerosol is made up of solid/fluid particles with sizes ranging from 0.01 to 1 micron.

**81. Which of these is NOT a primary pollutant?**

- a) Oxygen
- b) Ground-level ozone
- c) Carbon monoxide
- d) Carbon dioxide

**Answer: a**

**Explanation:** Ozone is not a primary pollutant since it is formed by the photo-chemical reaction of oxygen with the UV rays and not directly discharged into the atmosphere by a source.

**82. Which gas is released when alum is added to water?**

- a)  $\text{Ca}(\text{OH})_3$
- b)  $\text{CO}_2$
- c)  $\text{Al}(\text{OH})_3$
- d)  $\text{CaSO}_4$

**Answer: b**

**Explanation:** Carbon dioxide gas is released when alum is added to water, which is corrosive to metals.

**83. Which of the following plants is extremely sensitive towards sulphur dioxide?**

- a) Tomato
- b) Onion
- c) Potato
- d) Corn

**Answer: a**

**Explanation:** Tomato is sensitive towards sulphur dioxide whereas onion, potato and corn are relatively tolerant.



84. Which of the following is not commonly used as a filter material in the treatment of water?

- a) Garnet sand
- b) Crushed rock
- c) Sand
- d) Anthracite

Answer: b

**Explanation:** Sand, Anthracite and Garnet sand are used as a filter material but crushed rock is not used in the treatment of water.

85. The value of specific gravity for Garnet sand is \_\_\_\_\_

- a) 4.2
- b) 5.1
- c) 3.6
- d) 2.1

Answer: a

**Explanation:** Garnet sand is a dense material with a specific gravity of 4.2 and is used as a constituent in mixed media filter. It is a costlier filter material.

86. The process of decomposition of biodegradable solid waste by earthworms is called

- a) Composting
- b) Land fills
- c) Shredding
- d) Vermi-composting

Answer: d

**Explanation:** The process of decomposition of biodegradable solid waste by earthworms is called Vermi-composting.

87. What is the frequency of cleaning of a slow sand filter?

- a) 2-3 days
- b) 2-3 weeks
- c) 1-3 months
- d) 1 week

Answer: c

**Explanation:** The slow sand filter requires cleaning, depending upon the impurities present in water and normally it is done after 1-3 months.

88. Which type of filter is used in treating swimming pool water?

- a) Pressure filter
- b) Dual media filter
- c) Slow sand filter
- d) Rapid sand filter

Answer: a

**Explanation:** The pressure filter is used for treating swimming pool water. It is also used for clarifying softened water at industrial plants.



**89. Which of the following is a biodegradable waste?**

- a) Paper
- b) Food waste
- c) Polythene bags
- d) Synthetic fiber

**Answer: b**

**Explanation:** Polythene bags, synthetic fiber and paper are non-biodegradable wastes whereas food waste is a biodegradable waste.

**90. Which water treatment process is done after filtration of water?**

- a) Secondary sedimentation
- b) Flocculation
- c) Primary sedimentation
- d) Disinfection

**Answer: d**

**Explanation:** Disinfection is a process which is done to kill microorganism present in the water after the filtration process.

**91. In the lower layers of atmosphere, what range of wavelengths of light is predominant?**

- a) Between 100-300 nm
- b) Less than 100 nm
- c) Greater than 300 nm
- d) All wavelengths are equally present

**Answer: c**

**Explanation:** In the lower layers of atmosphere, light of wavelengths greater than 300nm are present and it is because of this reason, there is generally no ozone formation at the ground level.

**92. What is the significance of the ionosphere?**

- a) Regulates weather
- b) Aviation movements
- c) High frequency radio transmission
- d) All of the mentioned

**Answer: c**

**Explanation:** Ionosphere contains ionized atmospheric particles due to solar radiation and is useful in the propagation of radio waves.

**93. Which of the following radiations of the sun do greenhouse gases trap?**

- a) Infrared radiations
- b) UV radiations
- c) Visible radiations
- d) All the radiations

**Answer: a**

**Explanation:** Greenhouse gases trap the infrared radiations from the sun and reflect it back to the Earth's surface thereby heating up the planet.



**94. Below which of the following pH is rain regarded as „acid rain“?**

- a) 5.6
- b) 7.4
- c) 2.7
- d) 8

**Answer: a**

**Explanation:** Though the pH of neutral water is 7, rainwater is acidic due to mixing up with atmospheric carbon dioxide and is said to have a 5.6 pH. Hence acid rain has a pH less than 5.6.

**95. Which of the following greenhouse gas is contributed by cattle farming?**

- a) Carbon monoxide
- b) Nitrous oxide
- c) Methane
- d) All of the mentioned

**Answer: c**

**Explanation:** Methane is a gas released by the digestive processes of cattle and hence cattle farming also contributes to the greenhouse effect.

**96. Organic contaminants are removed from the water by the process of \_\_\_\_\_**

- a) Adsorption
- b) Absorption
- c) Demineralization
- d) Water softening

**Answer: a**

**Explanation:** Organic contaminants are removed from the water by the attraction and accumulation of one substance on the surface of another.

**97. Which of the following gases are main contributors to acid rain?**

- a) Carbon dioxide and carbon monoxide
- b) Sulphur dioxide and carbon dioxide
- c) Sulphur dioxide and nitrogen dioxide
- d) Sulphur dioxide and nitrous oxide

**Answer: d**

**Explanation:** Sulphur dioxide and nitrogen dioxide have a high tendency to mix with water to form sulphurous/sulphuric acid and nitric acid.

**98. Glass containers are generally not preferred for sampling rain water. Why?**

- a) Glass containers are expensive
- b) Glass containers are not easy to maintain
- c) Glass containers affect the pH of the rain water
- d) All of the mentioned

**Answer: c**

**Explanation:** Glass containers can alter the pH of the rain water and hence not suitable to use for sampling rain water.



**99. Who discovered the phenomenon of acid rain?**

- a) George Brown
- b) James T. Stewart
- c) Robert Angus Smith
- d) Charles David

**Answer: c**

**Explanation:** The phenomenon of acid rain was discovered by Robert A. Smith during the industrial revolution.

**100. What is the pH required for the survival of aquatic animals and plants?**

- a) 7
- b) 7.5
- c) 6.5
- d) 4.8

**Answer: d**

**Explanation:** Aquatic organisms require a moderately acidic pH of 4.8 and if it goes below this level, it proves to be detrimental to their survival.

**101. Which of the following gases is responsible for the yellowing of the Taj Mahal?**

- a) Organic carbon
- b) Black carbon
- c) Brown carbon
- d) All of the mentioned

**Answer: d**

**Explanation:** Organic carbon, black carbon and brown carbon (generated due to biomass combustion) are light absorbing particles responsible for the yellowing of the Taj Mahal.

<b>Prepared By</b> Katkar Y.T.	<b>Verified By</b> Navale S N. Module Coordinator	<b>Re-Verified By</b> Navale S N Academic Coordinator	<b>Approved By</b> Tupe S G HoD E&Tc





### Question Bank for Multiple Choice Questions

<b>Program: Diploma in Computer Engineering</b>	<b>Program Code:- CO</b>
<b>Scheme:-I</b>	<b>Semester:- V</b>
<b>Course:- Environmental Studies</b>	<b>Course Code:- 22447</b>

<b>02 – Energy Resources</b>	<b>Marks:-16</b>
<b>Content of Chapter:-</b> 2.1 Natural Resources - Forest Resources, Water Resources, Energy Resources, Land resources, Mineral resources. 2.2 Renewable, Non-renewable and Cyclic Resources. 2.3 Causes and effects of depletion of resources. 2.4 Energy forms (Conventional and non-conventional). 2.5 Present global energy use and future demands. 2.6 Energy conservation. 2.7 Over use of natural resources and its impacts on environment	

1. Energy resources derived from natural organic materials are called \_\_\_\_\_.

- a) geothermal energy sources
- b) fossil fuels
- c) Biomass
- d) All of the above

**Answer:-D**

**Explanation:-**Energy resources derived from natural organic materials are called natural resources.

2. Transfer of energy from source of plants through a series of organism is known as \_\_\_\_\_

- a) Food web
- b) Energy cycle
- c) Food chain
- d) Biological system

**Answer:-D**

**Explanation:-**Transfer of energy from source of plants through a series of organism is known as Biological system

3. Which of the following is a disadvantage of renewable energy?

- a) High pollution
- b) Available only in few places
- c) High running cost
- d) Unreliable supply

**Answer: d**



**Explanation:** Renewable energy often relies on the weather for its sources of power. Hydro generators need rain to fill dams and thereby provide electricity. Wind turbines need wind to turn the blades. Solar collectors need clear skies and sunshine.

**4.A Solar cell is an electrical device that converts the energy of light directly into electricity by the**

- a) Photovoltaic effect
- b) Chemical effect
- c) Atmospheric effect
- d) Physical effect

**Answer: a**

**Explanation:** The photovoltaic effect was first discovered in 1839 by Edmond Becquerel. The photovoltaic effect is a process that generates voltage or electric current in a photovoltaic cell when it is exposed to sunlight.

**5. In hydroelectric power, what is necessary for the production of power throughout the year?**

- a) Dams filled with water
- b) High amount of air
- c) High intense sunlight
- d) Nuclear power

**Answer: a**

**Explanation:** Dams are used for power generation. The reservoir water is stored at a higher level than the turbines, which are housed in a power station. The dam feeds water directly to the turbines in the power station.

**6. The main composition of biogas is \_\_\_\_\_**

- a) Methane
- b) Carbon dioxide
- c) Nitrogen
- d) Hydrogen

**Answer: a**

**Explanation:** Biogas is one of the types of bio fuel that is produced from the decomposition of organic waste. Biogas is known as the environmentally-friendly energy source since it is converting organic waste into energy. The composition of biogas is as follows: - Methane 50-75%, Carbon dioxide 25-50%, Nitrogen 0-10%, Hydrogen 0-1%.

**7. Which Ministry is mainly responsible for research and development in renewable energy sources such as wind power, small hydro, biogas and solar power?**

- a) Human Resource Development
- b) Agriculture and Farmers Welfare
- c) Ministry of New and Renewable Energy
- d) Health and Family Welfare

**Answer: c**

**Explanation:** Ministry of New and Renewable Energy is a ministry of the Government of India. The ministry is working to develop renewable energy for supplementing the energy requirements of India. It is headquartered in Lodhi Road, New Delhi.





**8. Which among the following have a large amount of installed grid interactive renewable power capacity in India?**

- a) Wind power
- b) Solar power
- c) Biomass power
- d) Small Hydro power

**Answer:** a

**Explanation:** Wind power having capacity 29000 MW holds 56.8%, Solar power having capacity 9500 MW holds 18.5%, Biomass power having capacity 8200 MW holds 16%, Small Hydro power having capacity 4400 MW holds 8.5%.

**9. The world's first 100% solar powered airport located at \_\_\_\_\_**

- a) Cochin, Kerala
- b) Bengaluru, Karnataka
- c) Chennai, Tamil Nadu
- d) Mumbai, Maharashtra

**Answer:** a

**Explanation:** Cochin International airport, the fourth-largest airport in India in terms of international traffic, now runs entirely on solar power. Cochin International Airport became the world's first fully solar powered airport on 18 August 2015.

**10. Which of the following is not under the Ministry of New and Renewable Energy?**

- a) Wind energy
- b) Solar energy
- c) Tidal energy
- d) Large hydro

**Answer:** d

**Explanation:** According to a recent survey large hydro installed capacity was 44.41 GW. The large hydro is administered separately by the Ministry of Power and not included in Ministry of New and Renewable Energy.

**11. Where is the largest Wind Farm located in India?**

- a) Jaisalmer Wind Park, Rajasthan
- b) Muppandal Wind Farm, Tamil Nadu
- c) Vaspeta Wind Farm, Maharashtra
- d) Chakala Wind Farm, Maharashtra

**Answer:** b

**Explanation:** Muppandal Wind Farm produces 1500 MW of current capacity. Muppandal Wind Farm is the second largest onshore wind farm in the world. This Wind Farm supplies power to many regions in Tamil Nadu.



**12. Which Indian enterprise has the Motto “ENERGY FOREVER”?**

- a) Indian Renewable Energy Development Agency
- b) Indian Non-Renewable Energy Development
- c) Indian Agricultural Development
- d) Indian Biotechnology Development

**Answer: a**

**Explanation:** Indian Renewable Energy Development Agency established in 1987 as Non-Banking Financial Institution. It is engaged in promoting, developing and extending financial assistance for setting up projects which are relating to new and renewable sources of energy.

**13. The primary composition of coal is \_\_\_\_\_**

- a) Nitrogen
- b) Carbon
- c) Oxygen
- d) Hydrogen

**Answer: b**

**Explanation:** Coal is a naturally found fossil fuel formed by the anaerobic decay of plant life taking place over millions of years. It is extracted from the underground by coal mining. The primary composition of coal is carbon while nitrogen, oxygen, and hydrogen comes under secondary composition.

**14. Which Ministry is mainly responsible for refining, distribution, import, export of petroleum products and natural gas in India?**

- a) Ministry of Petroleum and Natural Gas
- b) Ministry of Fossil Fuel
- c) Ministry of Non-Renewable Energy
- d) Ministry of Oil

**Answer: a**

**Explanation:** Ministry of Petroleum and Natural Gas is a ministry of the Government of India. The ministry is working to develop the exploration and exploitation of petroleum resources for supplementing the energy requirements of India. At present the ministry is headed by the Cabinet Minister Dharmendra Pradhan (2014-Incumbent).

**15. Where is the first oil well drilled in Asia?**

- a) Karachi, Pakistan
- b) Assam, India
- c) Tokyo, Japan
- d) Kandy, Sri Lanka

**Answer: b**

**Explanation:** Oil deposits were first discovered in Assam-Arrakan Basin at Digboi in 1889. In 1901, Asia's first oil refinery was set at Digboi in Assam. Digboi is the oldest oil well operating in India. In order to look after the oil business in this area, Assam Oil Company was formed in 1899.



16. The most abundantly available fossil fuel in India is \_\_\_\_\_

- a) Coal
- b) Natural Gas
- c) Petroleum
- d) Oil

**Answer: a**

**Explanation:** Coal is the most abundantly available fossil fuel in India. There are different forms of coal available they are, 1) Peat: Peat is produced by the decaying of plants in swamps. 2) Bituminous: It derives its name after liquid called bitumen. 3) Lignite: This form is used to produce electricity. 4) Anthracite: It has more than 90% carbon content per kg and it is the best quality coal.

17. What is Palar pani?

- a) Spring
- b) Milk
- c) River water
- d) Rain water

**Answer: d**

**Explanation:** Palar Pani is the commonly used name for rain water. This term is mainly used in Rajasthan. In Rajasthan Palar Pani means "Meetha Panni" which mainly stored and used for household works like working and drinking.

18. Which of the following is the major source of fresh water which is available in India?

- a) Ocean water
- b) River water
- c) Pond water
- d) Ground water

**Answer: d**

**Explanation:** Ground water is the major source of fresh water in India. Ground water can't see or can't access easily. The important role of ground water sources play in the water cycle is that they are the primary sources for human consumption.

19. At what time usually rainfall is recorded in India?

- a) 4 P.M.
- b) 6 P.M.
- c) 8 P.M.
- d) 10 P.M.

**Answer: c**

**Explanation:** We can record the amount of rainfall by the device called as a rain gauge. The usual time of recording for rainfall is 8 A.M in Indian time. Different countries have different rainfall recording timings. The some total of all the measurements during the previous 24 hours is register at 8 A.M in the morning.



20. The total surface of water in the earth surface is \_\_\_\_\_

- a) 65%
- b) 69%
- c) 71%
- d) 75%

**Answer: c**

**Explanation:** The total surface of the water in the earth surface is 71%, while the other 29% consists of Continents and Islands. The oceans hold about 96.5% of all Earth's water. The remaining 3.5% of water is stored in other water bodies.

21. Which planet is also known as blue planet?

- a) Mercury
- b) Venus
- c) Earth
- d) Mars

**Answer: c**

**Explanation:** About 71% of the earth's surface is covered in water, which appears blue from space. Earth is known as blue planet because of its blue visibility when we see it from outer space. No other planet is having such a large amount of water this is also the reason for its blue color.

22. Ground water is accessed by \_\_\_\_\_

- a) Drilling wells
- b) Drip irrigation
- c) Check bunds
- d) Constructing canals

**Answer: a**

**Explanation:** Ground water is commonly accessed either through a bore or well. A well is a vertical shaft which is dug into the ground. In order to drill a well we need to have a permission from the government. Government provide „take and use license“ in most cases.

23. Which Indian state is the largest producer of gold?

- a) Karnataka
- b) Kerala
- c) Assam
- d) Goa

**Answer: a**

**Explanation:** Karnataka is the largest producer of gold in India. The Kolar Gold Fields which is located in Kolar which was one of the largest producers of gold in India was shut down. Presently there are two main gold mines located in Karnataka they are Hutti and Raichur gold mines which produce almost 84% of India's gold.



**24. For the policy level guidelines for mineral sector, which policy is formed?**

- a) National Resources Policy
- b) National Mineral Policy
- c) National Regulation Policy
- d) National Legislation Policy

**Answer: b**

**Explanation:** National Mineral Policy was started in 1993. The main aim of this policy is liberalization of the mining sector and to encouraging the flow of investment especially in private investment and mining. In the 2008 reform it address in the areas of mining sector.

**25. Which state in India is the largest producer of diamond ores?**

- a) Karnataka
- b) West Bengal
- c) Rajasthan
- d) Madhya Pradesh

**Answer: d**

**Explanation:** Madhya Pradesh is the only state in India which produce diamond. The unit used to measure diamond is Carats. Diamond is classified under non-metallic mineral. The largest project of diamond in India is the Bunder project which is located in Madhya Pradesh.

**26. The copper production in India to that of world's production is about \_\_\_\_\_%**

- a) 10%
- b) 2%
- c) 0.5%
- d) 0.2%

**Answer: d**

**Explanation:** Copper production in India is just about 0.2% in the world. But still, in the production rate it is still within the top 20 countries in the world. Copper mining production is about 0.2% but refined copper production is 4% of world's production.

**27. The position of India in terms of production of Aluminium is \_\_\_\_\_**

- a) 4th
- b) 3rd
- c) 2nd
- d) 1<sup>st</sup>

**Answer: a**

**Explanation:** India stands 4th position in the aluminium production in the world. China stands 1st position in the aluminium production in the world. Russia in 2nd place. Canada stands in 3rd place. The aluminium production in India is around 2750 tonnes.



28. Kudremukh hills which is known for iron ore deposit is situated in \_\_\_\_\_

- a) Kerala
- b) Karnataka
- c) Goa
- d) Tamil Nadu

**Answer: b**

**Explanation:** Kudremukh which is known as an iron ore mining town is located in Chikkamagaluru district in Karnataka state. The government runs an iron ore company known as Kudremukh Iron Ore Company Ltd(KIOCL).

29. continuous are of land surrounded by ocean is called \_\_\_\_\_

- a) Seashore
- b) Beach
- c) Landmass
- d) Wetland

**Answer: c**

**Explanation:** Landmass may be often written as one word to distinguish it from the usage „landmass“ which means a measure of land. Landmass includes super continents, continents. Hence a land surrounded by oceans continuously is called as landmass.

30. How many major continuous landmass are there?

- a) One
- b) Two
- c) Three
- d) Four

**Answer: d**

**Explanation:** On earth, there are four major continuous landmasses are there. They are, Afro-Rurasia, the Americans, Antarctica and Australia. A part from the above four major continuous landmasses there are many minor landmasses also present.

31. Land capable of being ploughed and used to grow crops is called as \_\_\_\_\_

- a) Domestic land
- b) Arable land
- c) Un arable land
- d) Dry land

**Answer: b**

**Explanation:** Arable land is land that can be used for growing crops. Country with the most arable land in the world is United States having the share of 10.5% of the world's arable land. India stands in the second position with the production of 9.22%.





**32. Out of the total land area, how many million hectares of land suffer from degradation?**

- a) 150
- b) 175
- c) 200
- d) 225

**Answer: b**

**Explanation:** 175 million hectares of land area suffer from degradation. Land degradation is caused largely by soil erosion but also by water logging and excessive salinity. The high degree of degradation will affect the existing land resources.

**33. Wearing away of a field's topsoil by the natural physical forces of water and wind is known as \_\_\_\_**

- a) Wind erosion
- b) Soil erosion
- c) Water erosion
- d) Sand erosion

**Answer: b**

**Explanation:** Along with water and wind there is one more factor that determines the soil erosion and that is through forces associated with farming activities such as tillage, erosion, whether it is by water or wind.

**34. Estimate of the ability of soils to resist erosion, based on the physical characteristics of each soil is known as \_\_\_\_\_**

- a) Soil erodibility
- b) Soil erosion
- c) Soil potentiality
- d) Soil neutrality

**Answer: a**

**Explanation:** Texture is the principle characteristic affecting erodibility. Generally, soils with faster infiltration rates, higher levels of organic matter and improved soil structure have a greater resistance to erosion.

**35. Low lying tract of land enclosed by dikes that forms an artificial hydrological entity is known as \_\_\_\_\_**

- a) Polder
- b) Resign
- c) Derelict
- d) Catchment

**Answer: a**

**Explanation:** A polder has no connection with outside water other than through manually operated device used. There are three types of the polder. They are, Land reclaimed, flood plains and the last one is marshes.



36. Hydroponics is a technique of growing crops without \_\_\_\_\_

- a) Water
- b) Air
- c) Soil
- d) Sunlight

**Answer: c**

**Explanation:** Hydroponics is the technique of growing plants in a soil less medium, or an aquatic based environment. Hydroponics is a subset of hydro culture. Hydroponic growing uses mineral nutrient solutions to feed the plants.

37. The thin layer of grainy substance covering the surface of the earth is called as \_\_\_\_\_

- a) Mineral
- b) Soil
- c) Sand
- d) Chemical fertilizers

**Answer: b**

**Explanation:** Soil is the material found on the surface of the earth that is composed of organic and inorganic material. Soil varies in its composition and the structure of its particles. Soil is a vital important to the sustainability of an ecosystem.

38. Process of conversion of productive land to arid or semi arid lands is known as \_\_\_\_\_

- a) Deforestation
- b) Deformation
- c) Landform
- d) Desertification

**Answer: d**

**Explanation:** Desertification is classified into two types, moderate desertification in which 10 to 25% drop in productivity and one more is serious desertification in which there is more than a 50% drop in the productivity. This desertification leads to depletion of ground water.

39. In which forest we can see deforestation to large extent?

- a) Atlantic forest
- b) Amazon forest
- c) Borneo forest
- d) Sumatra forest

**Answer: b**

**Explanation:** According to World Wildlife report Amazon forest is the region where we can see more number of deforestation than any other region. Amazon forest which is the world's largest forest is also the site of the biggest projected loss due to deforestation.





40. The biggest driver of deforestation is \_\_\_\_\_

- a) Agriculture
- b) Forest fire
- c) Volcanic activities
- d) Soil erosion

**Answer: a**

**Explanation:** The biggest driver of deforestation is Agriculture. This is due to, farmers cut forests to provide more space for planting crops. The other reason is grazing livestock. The process of burning of trees by cutting them is known as slash agriculture.

41. Identify the uses of water

- a) Domestic
- b) Industrial
- c) Agricultural
- d) All the above

**Answer: d**

42. Write example of Non-metallic minerals

- a) Lime
- b) Haematite
- c) Cuprite
- d) Bauxite

**Answer: a**

43. Resources that can be replenished naturally in the course of time are called \_\_\_\_\_

- a) cyclic resources
- b) Renewable Resources.
- c) non-renewable Resources.
- d) None

**Answer: b**

44. Solar energy is \_\_\_\_\_ form of energy

- a) conventional
- b) non conventional
- c) both a and b
- d) none

**Answer: b**

45. Productive functions of forest includes availability of \_

- a) Timber
- b) Bamboo
- c) Medicines
- d) all the above

**Answer: d**



46. nuclear fission, nuclear decay and nuclear fusion are \_\_\_\_\_

- a) general processes
- b) special processes
- c) nuclear processes
- d) none

Answer: c

47. Minerals such as Gasoline, Copper, and Zinc production are estimated to decline in the next \_\_\_\_\_ years.

- a) 5
- b) 10
- c) 15
- d) 20

Answer: d

48. About \_\_\_\_% of the earth's water is strong saline.

- a) 50
- b) 25
- c) 97
- d) 100

Answer: c

49. Private companies misuse \_\_\_\_\_ for getting more profit.

- a) Natural resources
- b) Money
- c) Manpower
- d) None

Answer: a

50. In 2018 the total world energy came from \_\_\_\_% fossil fuels

- a) 64
- b) 60
- c) 74
- d) 70

Answer: a

51. Deregulation and privatization of energy sector is a \_\_\_\_ strategy for sustainability.

- a) Medium-term strategy
- b) Long - term strategy
- c) Immediate term strategy
- d) none

Answer: b



**52. Dams are constructed across the river is used for generating \_**

- a) Thermal power
- b) Wind power
- c) Tidal power
- d) Hydro electricity

**Answer: d**

**53. Which one among the following covers the highest percentage of forest area in the world?**

- a) Temperate Coniferous forests
- b) Temperate Deciduous forest
- c) Tropical Monsoon forests
- d) Tropical Rain forests

**Answer: a**

**54. Plants get their nitrogen from--**

- a) Rain
- b) Soil
- c) Air
- d) Bed rock

**Answer: b**

**55. Forest is responsible for**

- a) Water shed protection
- b) Land erosion control
- c) Providing economic and environmental benefits
- d) all of the above

**Answer: d**

**56.--- is the perpetual source of energy.**

- a) nuclear reactor
- b) Hydro power
- c) solar energy
- d) None of the above

**Answer: c**

**57. which of the following is not renewable resources?**

- a) Coal
- b) wind power
- c) Geo thermal energy
- d) thermal energy

**Answer: a**



**58. The main causes of deforestation**

- a) overgrazing
- b) Agriculture industry and other developmental project
- c) Timber extraction
- d) all of the above

**Answer: d**

**59. water logging and soil salinity are the outcomes of...**

- a) over- irrigation
- b) Mining
- c) soil erosion
- d) acid rain

**Answer: a**

**60. Wind energy is harnessed as-----energy with the help of windmill .**

- a) Mechanical
- b) Solar
- c) Electrical
- d) Heat

**Answer: a**

**61. Any material that can be transform into more valuable and useful product for all service is called as**

- a) Resource
- b) Minerals
- c) Product
- d) None of the above

**Answer: a**

**62. Burning of fossil fuels**

- a) decreases green house gases
- b) increases green house gases
- c) increase level of oxygen
- d) increase level of ethane

**Answer: b**

**63. All forms of water that comes down on Earth, including rain, show, hail etc. is**

- a) precipitation
- b) Calcification
- c) Fixation
- d) None of the above

**Answer: a**



**64. when the water is ejected from earth"s interior in the form of hot water it is called**

- a) Geyser
- b) Hot springs
- c) Both( a) and (b)
- d) None of the above

**Answer: b**

**65. Green revolution is associated with -----**

- a) Sericulture
- b) Agriculture
- c) Fish culture
- d) None of the above

**Answer: b**

**66. Which gas is likely to be reduced in the atmosphere by deforestation?**

- a) Carbon dioxide
- b) Nitrogen
- c) Oxygen
- d) All of the above

**Answer: c**

**67. Which of the following enhances soil fertility ?**

- a) Improved methods of agriculture
- b) crop rotation
- c) Using new seed varieties
- d) Irrigation

**Answer: b**

**68. Forest is an example of**

- a) Marine ecosystem
- b) Limnic ecosystem
- c) Artificial Ecosystem
- d) Terrestrial Ecosystem

**Answer: d**

**69. The resources that can be replaced by natural ecological cycle is called**

- a) renewable
- b) non renewable
- c) exhaustible
- d) natural

**Answer: a**



**70. The amount of oil that may become available for use is called oil \_\_\_\_\_.**

- a) Reserves
- b) Reservoir
- c) Resources
- d) Trap

**Answer: c**

**71. A coal deposit that is not economical to mine today would be considered part of our \_\_\_\_\_.**

- a) coal reserves
- b) coal resources
- c) coal reservoir
- d) None of the above

**Answer: b**

**72. What is the leading source of energy used in the United States today?**

- a) Coal
- b) oil resources
- c) natural gas
- d) nuclear power

**Answer: b**

**73. Energy resources derived from natural organic materials are called \_\_\_\_\_.**

- a) geothermal energy sources
- b) fossil fuels
- c) Biomass
- d) All of the above

**Answer: b**

**74. All oil traps contain**

- a) an impermeable layer
- b) an anticline
- c) Fault
- d) All of the above

**Answer: a**



**75. The world has the least amount of which of the following fuel types.**

- a)oil
- b)coal
- c)uremium
- d)there are roughly equal amounts of each of these fuels

**Answer: a**

**76. Burning of which of the following fuels produces the least amount of carbon dioxide per unit of energy?**

- a) Coal
- b) Oil
- c) natural gas
- d) all of these produce the same amount of carbon dioxide.

**Answer: c**

**77. Nuclear energy is derived by\_\_\_\_\_.**

- a) combustion of atoms of U 235
- b) fission of atoms of U 235
- c) fusion of atoms of U 235
- d) the breaking of U 235 bonds

**Answer: b**

**78. Solar energy stored in material such as wood, grain, sugar, and municipal waste is called \_\_\_\_\_.**

- a) fossil fuels
- b) Biomass
- c) geothermal energy
- d) natural gas

**Answer: b**

**79. The most nuclear fuel used in the world is\_\_\_\_\_.**

- a)Thorium 232
- b)Uranium 238
- c)Uranium 235
- d) Plutonium239

**Answer: c**

**80. What type of energy is derived from heated groundwater?**

- a) Solar
- b) Geothermal
- c) hydro electrical
- d) Nuclear

**Answer: b**



**81. The world faces an energy crisis because \_\_\_\_\_**

- a) world demand for energy will increase
- b) world oil production will peak and begin to decline
- c) shortages and the resulting escalation of prices can shock the economic and political order
- d) All of the above

**Answer: d**

**82. Fossil fuels are rich in carbon and**

- a) Nitrogen
- b) Hydrogen
- c) Oxygen
- d) Nitrite

**Answer: b**

**83. Wind is beneficial resource of energy as it doesn't cause**

- a) Pollution
- b) Echo
- c) Noise
- d) Sound

**Answer: a**

**84. Fossils fuel is an important source of energy for**

- a) Transport
- b) Homes
- c) Industries
- d) all of them

**Answer: d**

**85. Energy is released from fossil fuels when they are \_\_\_\_\_**

- a) Pumped
- b) Cooled
- c) Burnt
- d) Pressurized

**Answer: c**

**86. Black painted panels which are hanged at roofs to trap heat and energy from sun, are**

- a) solar cell
- b) solar heater
- c) solar furnace
- d) solar battery

**Answer: b**





**87. As per energy outlook 2019 world energy consumption will grow by nearly \_\_\_\_\_ between 2018 to 2050.**

- a) 50 %
- b) 60 %
- c) 70 %
- d) 80 %

**Answer: a**

**88. What are necessary conditions for socio-economic change for sustainable world**

- a) satisfaction of basic needs
- b) economic viability
- c) harmony with environment
- d) All of the above

**Answer: d**

**89. A tidal barrage is a barrier built over a \_\_\_\_\_**

- a) River bed
- b) River estuary
- c) River end
- d) River starting

**Answer: b**

**90. The blades in wind turbines are connected to \_\_\_\_\_**

- a) Nacelle
- b) Tower
- c) Foundation
- d) String

**Answer: a**

**91. In order to produce solar energy during sunlight, where the energy is stored in the batteries?**

- a) Nickel Sulfur
- b) Zinc Cadmium
- c) Nickel Cadmium
- d) Nickel Cadmium

**Answer: c**

**92. Trapped heat inside the earth is known as \_\_\_\_\_**

- a) Heat energy
- b) geo thermal energy
- c) kinetic energy
- d) thermal energy

**Answer: b**



**93. SI unit for energy is \_\_\_\_**

- a) Joule
- b) Watt
- c) Kilogram
- d) Newton

**Answer: a**

**94. Common energy source in Indian villages is:**

- a) Electricity
- b) Coal
- c) Sun
- d) Wood and animal dung

**Answer: d**

**95. Photovoltaic cell converts solar energy into**

- a) heat energy
- b) mechanical energy
- c) electrical energy
- d) chemical energy

**Answer: c**

**96. Biomass can be converted to**

- a) methane gas
- b) Ethanol
- c) Biodiesel
- d) All of the above

**Answer: d**

**97. In which of the following region winds are stronger and constant**

- a) Deserts
- b) Offshore
- c) low altitudes site
- d) All of the above

**Answer: b**

**98. Which of the following is a disadvantage of renewable energy?**

- a) High pollution
- b) Available only in few places
- c) High running cost
- d) Unreliable supply

**Answer: d**



**99. In hydroelectric power, what is necessary for the production of power throughout the year?**

- a) Dams filled with water
- b) High amount of air
- c) High intense sunlight
- d) Nuclear power

**Answer: a**

**100. Which Ministry is mainly responsible for research and development in renewable energy sources such as wind**

- a) Human Resource Development
- b) Agriculture and Farmers Welfare
- c) Ministry of New and Renewable Energy
- d) Health and Family Welfare

**Answer: c**

<b>Prepared By</b> Katkar Y.T.	<b>Verified By</b> Navale S N. Module Coordinator	<b>Re-Verified By</b> Navale S N Academic Coordinator	<b>Approved By</b> Tupe S G HoD E&Tc



**Question Bank for Multiple Choice Questions**

<b>Program: Diploma in Computer Engineering</b>	<b>Program Code:- CO</b>
<b>Scheme:-I</b>	<b>Semester:- V</b>
<b>Course:- Environmental Studies</b>	<b>Course Code:- 22447</b>

<b>03 – Ecosystem and Biodiversity</b>	<b>Marks:-12</b>
<b>Content of Chapter:-</b> 3.1 Ecosystem-Definition,Aspects of ecosystem, Division of ecosystem, General characteristics of ecosystem, Functions of ecosystem. 3.2 Biodiversity - Definitions,Levels,Value and loss of Biodiversity. 3.3 Biodiversity assessment initiatives in India. 3.4 Threats and Hotspot of biodiversity. 3.5 Conservation of biodiversity objects, various laws.	

**1. Which one of the following is not a gaseous biogeochemical cycle in an ecosystem?**

- a) Carbon cycle
- b) Phosphorous cycle
- c) Sulfur cycle
- d) Nitrogen cycle

**Answer: b**

**Explanation:** Phosphorous cycle is not a gaseous biogeochemical cycle in an ecosystem. It is also a biogeochemical cycles but here atmosphere does not play a significant role in the movement of the phosphorous cycle.

**2. Transfer of energy from source of plants through a series of organism is known as**

- a) Food web
- b) Energy cycle
- c) Food chain
- d) Biological system

**Answer: c**

**Explanation:** Food chain is a pathway that represents the exchange of energy from one organism to another. Energy is transmitted all the way from Sun to the other organisms by passing from producers to the consumers.



3. The type of ecosystem with the highest mean plant productivity is \_\_\_\_\_

- a) Tundra
- b) Temperate grassland
- c) Desert
- d) Tropical rain forest

**Answer: d**

**Explanation:** A Tropical rain forest has more kinds of trees than any other area in the world. Seventy percent of the plants in the rainforest are trees. There are many distinct layers of trees. These layers have been identified as the emergent upper, canopy, understory and forest floor.

4. An ecosystem which can be easily damaged but can recovered after some time if damaging effect stops will be having \_\_\_\_\_

- a) High stability and high resilience
- b) High stability and low resilience
- c) Low stability and low resilience
- d) Low stability and high resilience

**Answer: d**

**Explanation:** In any ecosystem the condition of low stability and high resilience makes it to damage easily and after a certain amount of time they recover from damaging effects. Hence both stability and resilience play an important role in ecosystem.

5. In ecosystem standing crop refers to \_\_\_\_\_

- a) All the green plants
- b) All the non living materials
- c) All living and dead animals
- d) All the living materials both animals and plants

**Answer: d**

**Explanation:** Standing crop is the amount of total biomass present in an ecosystem. This is the amount of total living matter. There is no circulation in standing crop. In standing crop continuous synthesis and consumption of biomass are going on.

6. Which ecosystem produce the highest annual net primary productivity?

- a) Tropical evergreen forest
- b) Tropical rain forest
- c) Tropical deciduous forest
- d) Temperate evergreen forest

**Answer: b**

**Explanation:** Tropical rain forest produce mean NPP of 2200(g/m<sup>2</sup>/yr) the world NPP is 37.4(109 tons/yr). Tropical rain forest produce mean biomass of 45(Kg/m<sup>2</sup>) and the world biomass is 763(109 tones). Hence tropical rain forest ecosystem produces the highest annual net primary productivity(NPP).



**7. What flows through the ecosystem while matter cycles within them?**

- a) Energy
- b) Force
- c) Pressure
- d) Wind

**Answer: a**

**Explanation:** Ecosystem maintains themselves by cycling energy and nutrients obtained from external sources. At the first trophic level, primary producers are solar energy to produce organic plant material through photosynthesis.

**8. Total primary production in an ecosystem is known as \_\_\_\_\_**

- a) Gross final production
- b) Gross primary production
- c) Gross middle production
- d) Net primary production

**Answer: b**

**Explanation:** The total amount of productivity in a region is gross primary productivity. Primary productivity is the rate at which energy is converted by photosynthetic and chemosynthetic autotrophy to organic substances.

**9. Which type of ecosystem accounts for most of the net primary productivity on earth even though it has a low average net primary productivity?**

- a) Tropical rain forest
- b) Desert
- c) Tropical evergreen forest
- d) Oceans

**Answer: d**

**Explanation:** The open oceans account for most of the net primary productivity on the planet even though they have one of the lowest average net primary productivities which cover by far the most area on earth.

**10. Generally ecosystem consists of how many basic components?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: b**

**Explanation:** Generally ecosystems consist of two basic components, they are abiotic and biotic components. Abiotic components include basic inorganic and organic compounds. Biotic components include producers, consumers and decomposers.



11. The three functional components interact with each other to form \_\_\_\_\_

- a) Environmental succession
- b) Environmental depression
- c) Environmental system
- d) Ecology

**Answer: c**

**Explanation:** The three functional components of an ecosystem which are inorganic constituents, organism and energy input forms environmental system. An ecosystem is a functional and life sustaining environmental system.

12. The dominant second tropic level in a lake ecosystem is \_\_\_\_\_

- a) Phytoplankton
- b) Zooplankton
- c) Plankton
- d) Benthos

**Answer: b**

**Explanation:** Lake ecosystem includes both biotic and abiotic components. Zooplanktons are the organisms that have animal like traits. Most of them are heterotrophy in nature. Zooplankton is a vital component of fresh water food webs.

13. Consumer for food that feeds on producers are known as \_\_\_\_\_

- a) Carnivores
- b) Consumers
- c) Herbivores
- d) Producers

**Answer: c**

**Explanation:** Animals that eat only plants are called as herbivores. Plants are called producers because they are able to use light energy from the sun to produce food from carbon dioxide and water. Herbivores are also known as primary consumers.

14. The food chain from grass to hawk and again it comes back to grass with the help of fungi. In the above explain food chain, what is grass?

- a) Producers
- b) Consumers
- c) Decomposers
- d) Energy source

**Answer: a**

**Explanation:** Green is a producer. It is a self sustaining organism that obtains its energy directly from sun. In the process, grass introduces few new organic substances into the food chain and grass plays a key role for consumers.





15. The process in which green plants and few organisms use sunlight to synthesize nutrients is known \_\_\_\_\_

- a) Chemosynthesis
- b) Photosynthesis
- c) Food chain
- d) Food web

**Answer: b**

**Explanation:** Photoautotrophs are the organisms involved in photosynthesis. It uses energy from the sun to convert water from the soil and carbon dioxide from the air into glucose. Glucose provides energy to plants and is used to make cellulose which is used to build cell walls.

16. The process of making food by certain microbes creates energy by some chemical reactions is known as \_\_\_\_\_

- a) Photosynthesis
- b) Food chain
- c) Chemosynthesis
- d) Heterosynthesis

**Answer: c**

**Explanation:** Chemoautotrophy is the organism which produces chemosynthesis. It uses energy from chemical reactions to make food. The chemical reactions are usually between methane with oxygen. Carbon dioxide is the main source of carbon for chemoautotrophy.

17. The food chain level in autotrophy is \_\_\_\_\_

- a) Primary
- b) Secondary
- c) Tertiary
- d) Quaternary

**Answer: a**

**Explanation:** All food chains start with autotrophy which is a producer. Autotrophs are eaten by herbivores, organisms that consume plants. Herbivores are the second trophic level. Carnivores and omnivores are secondary consumers.

18. What makes plant producers?

- a) Plants produce their own food
- b) Plants depend on other organisms for food
- c) Plants are decomposers
- d) Plants do not require any energy

**Answer: a**

**Explanation:** Plants produce their own food. They do this by using light energy from the sun, carbon dioxide from the air and water from the soil to produce food in the form of glucose. The overall process is called as photosynthesis.



**19. What does a primary consumer eat?**

- a) Plants
- b) Decomposers
- c) Small animals
- d) Large animals

**Answer: a**

**Explanation:** Primary consumers are always herbivores, or organisms that only eat autotrophic plants. This primary consumer gets energy by eating plants. For example, rabbit which is a primary consumer eat grass and other herbivorous plants to get energy.

**20. On what category consumers are classified into?**

- a) Herbivore
- b) Carnivore
- c) Omnivore
- d) Herbivore, carnivore, omnivore and scavenger

**Answer: d**

**Explanation:** Consumers can be classified into herbivores, carnivores, omnivores and as well as a scavenger. Most of the primary consumer is herbivore, secondary and tertiary consumers are carnivore. Quaternary are omnivores.

**21. What is called for an organism that feeds on other organisms?**

- a) Insects
- b) Consumer
- c) Producer
- d) Herbivore

**Answer: b**

**Explanation:** Consumers feed on producers or other consumers to gain their energy. The consumers are the animals that receive energy from the producers. Consumers are who feed on the lower level in the food chain.

**22. How many types of consumers are there?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: c**

**Explanation:** There are three types of consumers they are, primary followed by secondary and tertiary. Primary consumers consume primary producers. Secondary consumers eat primary consumers. Tertiary consumers are the top predators of an ecosystem.



**23. From where does the decomposer receive energy?**

- a) Producers
- b) Consumers
- c) Self generation
- d) Organic substrates

**Answer: a**

**Explanation:** Decomposers receive energy by using organic substrates to get their energy, nutrients for development and growth. Decomposers are organisms that break down dead and decaying organisms. Similar to herbivores and predators, decomposers are also heterotrophic.

**24. How many major groups are classified in decomposers?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: b**

**Explanation:** Decomposers can be classified into two groups namely, fungi and detritivores. Fungi break down deceased organisms. While detritivores are responsible for consuming large particles of the deceased organism.

**25. What is called for an organism which breaks down dead or waste matter into simpler substances?**

- a) **Decomposers**
- b) Producers
- c) Insects
- d) Consumers

**Answer: a**

**Explanation:** Decomposers break down dead plants and animals. Decomposers are very important for any ecosystem. If decomposers didn't exist then the plants would not get essential nutrients and even dead and waste matter would pile up.

**26. The primary decomposers of most dead plant material are \_\_\_\_\_**

- a) Algae
- b) Bacteria
- c) Fungi
- d) Insects

**Answer: c**

**Explanation:** Fungi play a major role as decomposers and recycle in the wide variety of habitats in which they exist. They release nitrogen and phosphorus from decaying matter. In fungi we can see digestion precedes ingestion.



**27. To which category shelf fungi classified?**

- a) Producers
- b) Consumers
- c) Decomposers
- d) Insects

**Answer: c**

**Explanation:** Shelf fungi also called as bracket fungi that forms shelf like sporophores. They grow on trees in a stack. They attack and digest the trunk and branches of a tree. Few shelf fungi can parasitize living trees causing eventual death of the tree.

**28. In order to form compost which of the following wastes cannot be decomposed by bacteria?**

- a) Plant wastes
- b) Kitchen wastes
- c) Plastic and polythene wastes
- d) Bodies of dead animals

**Answer: c**

**Explanation:** Bacteria cannot convert plastic and polythene to compost. Composting is a way to treat solid waste so that microorganisms break down the organic material. The composting process requires organic waste such as leaves, fruits and vegetables scraps.

**29. What is called for the process of breaking down food to yield energy?**

- a) Oxidation
- b) Photosynthesis
- c) Cellular respiration
- d) Decomposition

**Answer: c**

**Explanation:** Catabolism is a metabolic process in cellular respiration that uses oxygen and energy to break down nutrients. It creates the waste through an oxidation process with free chemical energy, which is used to help create the waste.

**30. What are called for an organisms which get energy by eating dead organisms?**

- a) Decomposers
- b) Producers
- c) Consumers
- d) Herbivores

**Answer: a**

**Explanation:** Decomposers are an organism that break down chemicals from wastes and dead organisms. In return, it gives important materials to the soil and water. This is the last stop of the food chain.



**31. Which among the following is a product of photosynthesis?**

- a) Glucose
- b) Carbon
- c) Monoxide
- d) Nitrogen

**Answer: a**

**Explanation:** Photosynthesis is a process to harvest energy from light. The energy is converted to biomass. Photosynthesis takes in carbon dioxide and water combine them in the presence of energy from the sun to make food.

**32. What is called for an organism that eats both plants and animals?**

- a) Omnivore
- b) Carnivore
- c) Decomposers
- d) Herbivore

**Answer: a**

**Explanation:** Some animals eat both plants and animals they are called omnivores. Omnivores include mammals and birds. It is very easy for omnivore to find food because they eat both plants and animals. They are opportunistic eaters.

**33. Why energy flow is linear in an ecosystem?**

- a) Because it flows in air medium
- b) Because it is very particular
- c) Because ecosystem is linear
- d) Because energy flows from one trophic level to the next higher one

**Answer: d**

**Explanation:** Energy flow is unidirectional because energy flows from one trophic level to next higher one. One more reason is when there is energy flow some energy lost as heat at each step. This is according to 10% energy transfer law.

**34. Why plants in forests do not make use of all the light energy available to them?**

- a) Because plants do not require energy
- b) Because plants are grown only in the winter season
- c) Because of the absence of chlorophyll
- d) Because sunlight doesn't fall on the leaves fully

**Answer: d**

**Explanation:** All plants require light energy in order to obtain energy. This energy is providing by sun known as ultimate source of energy. When sun light falls on the plants in the dense forest due to its shady branches of big trees which forms canopy.



**35. How many parts are there in the forest ecosystem?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: b**

**Explanation:** A forest ecosystem has two parts they are, abiotic and biotic. Abiotic type of forest depends on abiotic conditions at the site, they are also called non-living aspects of the forest. Biotic type of forest depends on plants and animals form communities that are specific to each forest type.

**36. On which factor forest type is mainly dependent?**

- a) Abiotic
- b) Size of the forest
- c) Shape of trees
- d) Products from the trees

**Answer: a**

**Explanation:** The forest type mainly depends on abiotic factors such as the climate and soil characteristics of a region. It also depends on the nature of the tree species whether they are evergreen forest, deciduous, xerophytes or mangroves.

**37. In which of the following place we can find the cold deserts?**

- a) Bangalore
- b) Chennai
- c) Himalaya
- d) Rajasthan

**Answer: c**

**Explanation:** Cold deserts are the deserts where we can find less vegetation and few organisms which is adopted to live in cold regions. Cold deserts covered with snow. We can also find this cold deserts in the high plateaus of the Himalayas.

**38. How many types of aquatic ecosystems are there?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: b**

**Explanation:** There are two important aquatic ecosystems are there. One is fresh water ecosystem and one more is marine ecosystem. Again these two ecosystems are further divided into various categories. Marine includes sea whereas fresh water includes lakes, rivers and wetlands.





**39. What made organisms to build their ecosystem in aquatic?**

- a) Curiosity
- b) Evolution
- c) Force from other organisms
- d) Increase in water level

**Answer: b**

**Explanation:** According to scientists Earth's first cellular life arose primordial in oceans. Later as evolution takes place many animals from aquatic ecosystem came to land and adopt themselves to live in the condition of land.

**40. What is called for the benefits that nature provides to human beings?**

- a) Ecosystem services
- b) Ecosystem conservation
- c) Ecosystem degradation
- d) Ecosystem pool

**Answer: a**

**Explanation:** Ecological services are the environmental benefits resulting from physical, chemical and biological functions of ecosystems. Ecological services include market goods produced from ecosystems and non material benefits.

**41. What is an important reason for the conservation of natural resources?**

- a) Disturb the ecological balance
- b) Preserve the biological diversity
- c) Disruption of quality of the environment
- d) Hampering the biological species

**Answer: b**

**Explanation:** The materials or substances occurring in nature that exist without the actions of humankind are known as natural resources. The conservation of natural resources is important for the preservation of natural, biological diversity.

**42. For what reason is the conservation of natural resources important?**

- a) Maintaining the ecological processes
- b) Disturbing the ecological balance
- c) Extinction of biological species
- d) Disruption of quality of the environment

**Answer: a**

**Explanation:** The materials or substances (biotic and abiotic) occurring naturally and without the actions of humankind are known as natural resources. The conservation of natural resources is important for the preservation of biological diversity and maintaining ecological processes.





**43. What is the correct full form of IUCN?**

- a) International Union for Conservation of Nuts
- b) International Union for Conservation of Nature
- c) International Union for Conservation of Natural habitat
- d) International Union for Conservation of Numbers

**Answer: b**

**Explanation:** International Union for Conservation of Nature (IUCN) was founded on 5 October 1948 in France by Julian Huxley. It is working in the field of conservation of nature and sustainable use of natural resources.

**44. What are the species called whose number of individuals is greatly reduced to a critical level?**

- a) Indeterminate
- b) Rare
- c) Vulnerable
- d) Endangered

**Answer: d**

**Explanation:** Those species whose number of individuals is greatly reduced to a critical level and are at a high risk of extinction in the wild are known as endangered species. Some examples of endangered species are Brown spider monkey, Bengal tiger, Ganga river dolphin, Indian Rhino, Black buck, etc.

**45. What are the species called whose number of individuals is greatly reduced recently and is decreasing continuously?**

- a) Endangered
- b) Rare
- c) Vulnerable
- d) Indeterminate

**Answer: c**

**Explanation:** Those species whose number of individuals is greatly reduced recently and is decreasing continuously and are at a high risk of endangerment in the wild are known as vulnerable species. Some examples of vulnerable species are Barasingha, Nilgiri Langur, Yak, Olive Ridley Turtle, Sloth bear, etc.

**46. What are the species called whose members are few and live in a small geographical area called?**

- a) Endangered
- b) Rare
- c) Indeterminate
- d) Vulnerable

**Answer: b**

**Explanation:** Those species called whose members are few and live in a small geographical area and are very uncommon, scarce, or infrequently encountered are known as rare species. Some examples of rare species are Malabar Giant Squirrel, Gee's Golden Langur, Dugong, Indian Giant Flying Squirrel, etc.



**47. What are the species called whose members are in danger of extinction but the reason is unknown called?**

- a) Endangered
- b) Vulnerable
- c) Rare
- d) Indeterminate

**Answer: d**

**Explanation:** The species called whose members are in danger of extinction but the reason is unknown, no enough information is available to decide their true nature are called indeterminate species. Some examples of intermediate species are Short-eared rabbit of Sumatra, Three-banded armadillo of Brazil, Rhinoceros, etc.

**48. Which utilitarian states that humans derive countless direct economic benefits from nature?**

- a) Big utilitarian
- b) Broadly utilitarian
- c) Narrowly utilitarian
- d) Small utilitarian

**Answer: c**

**Explanation:** The humans derive countless direct economic benefits from nature is stated by the narrowly utilitarian argument. All the world commercial things provided to us by forests are included in this. It usually deals with the benefit of humans.

**49. How many species of plants contribute to the traditional medicines used by native peoples around the world?**

- a) 2,500
- b) 2,000
- c) 5,000
- d) 25,000

**Answer: d**

**Explanation:** The species of plants contribute to the traditional medicines used by native peoples around the world are approximately 25,000. Some examples of traditional plants used for medicinal purposes are ginger, garlic, chamomile, tulsi, etc.

**50. How many species of plants are used for the production of the drugs currently sold in the market worldwide?**

- a) 2 %
- b) 35 %
- c) 25 %
- d) 5 %

**Answer: c**

**Explanation:** Almost 25 percent of plant species are used for the production of the drugs currently sold in the market worldwide. Some plants used for the production of drugs are camphor tree, coca plant, poppy, turmeric, etc.



**51. Which utilitarian states that biodiversity is important for many ecosystem services that nature provides?**

- a) Narrowly utilitarian
- b) Broadly utilitarian
- c) Big utilitarian
- d) Small utilitarian

**Answer: b**

**Explanation:** The biodiversity is important for many ecosystem services that nature provides is stated by the broadly utilitarian argument. It involves the conservation of biodiversity by humans because it is their moral responsibility and they derive many benefits from nature.

**52. What is exploring molecular, genetic, and species-level diversity for products of economic importance called?**

- a) Biopiracy
- b) Biofuel
- c) Bioprospecting
- d) Biodiversity

**Answer: c**

**Explanation:** Exploring molecular, genetic, and species-level diversity or the search for plant and animal species for products of economic importance such as medicinal drugs and other commercially valuable compounds is known as bio prospecting. The compounds explored are used in various fields such as academic, agriculture, bioremediation, pharmaceuticals, nanotechnology, industrial purposes, etc.

**53. What percent of the total oxygen in the Earth's atmosphere is released by the Amazon forest?**

- a) 50 %
- b) 20 %
- c) 40 %
- d) 2 %

**Answer: b**

**Explanation:** The Amazon rainforest is the world's largest tropical rainforest and is also known as the Amazon Jungle or Amazonia. Approximately 20 percent of the total oxygen in the Earth's atmosphere is released by the Amazon forest by the process of photosynthesis.

**54. Which one of the following is an example of conservation?**

- a) No use of natural resources
- b) The wise use of natural resources
- c) Excess use of natural resources
- d) Complete use of natural resources

**Answer: d**

**Explanation:** The materials or substances occurring in nature that exist without the actions of humankind are known as natural resources. These resources can be conserved by using them wisely.



**55. How many plant and animal species have been discovered and described so far?**

- a) 1.5 million
- b) 4.5 million
- c) 1.5 billion
- d) 4.5 billion

**Answer: a**

**Explanation:** The biosphere of Earth is heterogeneous in nature and shows immense diversity. There are more than slightly more than 1.5 million species known and still many species are yet to be discovered and described.

**56. What is the global species diversity according to Robert May?**

- a) 70 million
- b) 7 million
- c) 2 million
- d) 20 million

**Answer: b**

**Explanation:** Robert McCredie May is a theoretical ecologist and promoter of science. He estimated that there are almost 7 million species globally.

**57. Out of the total species estimated, how many species are of animals?**

- a) 2 %
- b) 50 %
- c) 7 %
- d) 70 %

**Answer: d**

**Explanation:** Based on the currently available species inventories of Earth, out of all species recorded, more than 70 percent of species are of animals. Animals are the consumers that depend on producers for their energy requirements.

**58. Of all the species recorded, what percent do plants comprise of?**

- a) 10 %
- b) 50 %
- c) 22 %
- d) 2 %

**Answer: c**

**Explanation:** Based on the currently available species inventories of Earth, out of all species recorded, almost 22 percent of species are of plants. These include all the known species of (including algae, fungi, bryophytes, gymnosperms, and angiosperms).



**59. Of all the animal species recorded, what percent do insects comprise of?**

- a) 7 %
- b) 70 %
- c) 50 %
- d) 2 %

**Answer: b**

**Explanation:** Among animals, insects are said to be the most species-rich taxonomic group. Insects are hexapod invertebrates belonging to phylum Arthropoda. Out of all known animal species, 70 percent is comprised of insects.

**60. Which is the most species-rich taxonomic group?**

- a) Molluscs
- b) Crustaceans
- c) Echinoderms
- d) Insects

**Answer: d**

**Explanation:** Among animals, insects are said to be the most species-rich taxonomic group. Insects are hexapod invertebrates belonging to phylum Arthropoda. Out of all known animal species, 70 percent is comprised of insects.

**61. Of all the vertebrate species recorded which class has the maximum number of species?**

- a) Amphibians
- b) Mammals
- c) Fishes
- d) Reptiles

**Answer: c**

**Explanation:** Fishes are limbless cold-blooded vertebrate gill-bearing aquatic craniate animals. They commonly have fins and are covered with scales. Of all the vertebrate species recorded, fishes have the maximum number of species.

**62. Of all the plant species recorded which class has the minimum number of species?**

- a) Angiosperms
- b) Fungi
- c) Algae
- d) Lichens

**Answer: d**

**Explanation:** The mutualistic relationship between a fungus and photosynthesizing algae is called lichens. Of all the plant species recorded, lichens have the minimum number of species. They are used in the food industry, making dyes and have medicinal use.



**63. How much of the world's land area, India has?**

- a) 1 percent
- b) 40 percent
- c) 2.4 percent
- d) 80 percent

**Answer: c**

**Explanation:** Of the entire world's land area, India has 2.4 percent. India with a total area of 3,287,263 square kilometers that is 1,269,219 square miles is said to be the seventh-largest country in the world.

**64. Which of the following species is present in India?**

- a) Koala
- b) Sloth bear
- c) Kangaroo
- d) Wombats

**Answer: b**

**Explanation:** Out of the total global species diversity, India contributes 8.1 percent. Out of this sloth bear is found in India, while rest others are marsupials that are mostly found in Australia.

**65. Which of the following species is native of India?**

- a) Rhodes grass
- b) Jackalberry tree
- c) Ebony tree
- d) Umbrella thorn acacia

**Answer: c**

**Explanation:** India is home to approximately 45,000 plant species. Ebony tree (*Diospyros celebica*) is the native of India. It is a threatened species found in Karnataka.

**66. Considering May's global estimates, how many of the total species have been recorded?**

- a) 1 percent
- b) 22 percent
- c) 10 percent
- d) 50 percent

**Answer: b**

**Explanation:** Robert McCredie May is a theoretical ecologist and promoter of science. He estimated that there are almost 7 million species globally. Considering May's global estimates, only 22 percent of the total species have been recorded.





**67. Considering May"s global estimates, how many of the plant species are yet to be discovered and described in India?**

- a) 500
- b) 100
- c) 5,00,000
- d) 1,00,000

**Answer: d**

**Explanation:** Robert McCredie May estimated that there are almost 7 million species globally. Considering May"s global estimates and applying this proportion to India"s diversity figures, we can say that there are more than 1,00,000 plant species yet to be discovered and described in India.

**68. What does „The Evil Quartet" describes?**

- a) An increase in the number of species
- b) The decrease in the number of species
- c) Mass extinction
- d) Formation of the universe

**Answer: b**

**Explanation:** „The Evil Quartet" is the sobriquet used to describe the reasons for the decline in the number of species. The four reasons include Loss of habitat and fragmentation, Over-exploitation of species, Invasion of alien (new) species and Co-extinctions.

**69. Which one of the following is said to be the most important cause or reason for the extinction of animals and plants?**

- a) Loss of habitat and fragmentation
- b) Over-exploitation of species
- c) Invasion of alien species
- d) Co-extinctions

**Answer: a**

**Explanation:** The most important reason for the extinction of animals and plants is the loss of habitat and fragmentation. Habitat loss due to destruction, fragmentation, or degradation of habitat makes natural habitat incapable of supporting its native species.

**70. Previously how much of the Earth"s land surface was covered by the tropical rain forests?**

- a) 50 %
- b) 14 %
- c) 24 %
- d) 35 %

**Answer: b**

**Explanation:** The forests occurring in tropical areas of heavy rainfall are known as tropical rain forests. It has abundant species of wildlife and vegetation. Previously 14 percent of the Earth"s land surface was covered by the tropical rain forests.





**71. The initiative of biodiversity assessment focuses on which ecosystem types:**

- a) Forest
- b) wetland
- c) Marine
- d) All of the above

**Answer: d**

**72. Which of the following is not a Causes of biodiversity losses?**

- a) Over exploitation
- b) Eco-friendly
- c) Co-extinction
- d) Habitat loss and fragmentation

**Answer: b**

**73. marketable products such as animal skins, ivory, medicinal plants, honey, etc comes under\_\_\_\_\_.**

- a) Productive value
- b) Consumptive value
- c) Aesthetic value
- d) Social value

**Answer: a**

**74. \_\_\_\_\_called the „lungs of the planet“.**

- a) Sahyadry rain forest
- b) Konkan rain forest
- c) Amazon rain forest
- d) South Africa rain forest

**Answer: c**

**75. Which leads to over- exploitation of natural resources?**

- a) Greed
- b) Eco-friendly
- c) Need
- d) All of the above

**Answer: a**

**76. What flows through the ecosystem while matter cycles within them?**

- a) Energy
- b) Force
- c) Pressure
- d) Wind

**Answer: a**



**77. Currently, how much area of the Earth's land surface is covered by the tropical rain forests?**

- a) 90 %
- b) 50 %
- c) 1 %
- d) 6 %

**Answer: d**

**Explanation:** The forests occurring in tropical areas of heavy rainfall are known as tropical rain forests. It has abundant species of wildlife and vegetation. Currently, 6 percent area of the Earth's land surface is covered by the tropical rain forests.

**78. Which animals are badly affected when a large habitat is broken up into small fragments due to various human activities?**

- a) Extinct species
- b) Migratory species
- c) Non-migratory species
- d) Humans

**Answer: b**

**Explanation:** When a large habitat is broken up into small fragments due to various human activities, the migratory species are badly affected. These areas are fragmented by humans for agriculture and urban development.

**79. What are the excess and the unsustainable use of resources called?**

- a) Loss of habitat and fragmentation
- b) Co-extinctions
- c) Invasion of alien species
- d) Over-exploitation

**Answer: d**

**Explanation:** The excess and unsustainable use of resources is known as over-exploitation. It is also known as overharvesting. Overexploitation of any kind of resource leads to rapid decline and destruction of that resource that may cause serious damage to the ecosystem.

**80. What was the reason for the exploitation of the Steller's sea cow and the passenger pigeon?**

- a) Competition
- b) Loss of habitat
- c) Human activities
- d) Mutualistic relationships

**Answer: c**

**Explanation:** The excess and unsustainable use of resources is known as over-exploitation. Many species such as the Steller's sea cow and the passenger pigeon are lost in last 500 years due to human activities such as poaching.



**81. What happens when alien species are introduced unintentionally or deliberately?**

- a) Decrease of alien species
- b) Increase in habitat
- c) They turn invasive and cause increase species
- d) They turn invasive and cause decline or extinction of indigenous species

**Answer: d**

**Explanation:** The unintentional or deliberate introduction of alien (new) species into a habitat cause the aliens to turn invasive and thus causing the decline or extinction of indigenous species. They can affect all types of organisms (animals, plants, fungi, and microorganisms) and ecosystems.

**82. What happened when the Nile perch introduced into Lake Victoria in east Africa?**

- a) Extinction of trees
- b) Increase in the number of trees
- c) Extinction of cichlid fish
- d) Increase in the number of cichlid fish

**Answer: c**

**Explanation:** The cichlid fish, native of Lake Victoria in east Africa were extinct due to the introduction of alien species that is the Nile perch. It destroyed nearly 200 species of cichlid fish through predation and competition for food.

**83. Which of the following contains chemicals like parthenin, is toxic to cattle and cause pollen allergy in humans?**

- a) Nile perch
- b) The carrot grass
- c) Rose
- d) Wheat

**Answer: b**

**Explanation:** The carrot grass also known as *Parthenium* is an erect and annual herb. It is responsible for environmental, medical, and agricultural hazards. It contains chemicals like parthenin, is toxic to cattle and causes pollen allergy in humans.

**84. What is *Eicchornia* called?**

- a) The carrot grass
- b) Nile perch
- c) Water hyacinth
- d) Water lily

**Answer: c**

**Explanation:** *Eicchornia crassipes* also known as water hyacinth. It was first introduced from South America into China that later on became a serious environmental problem. It reduces the sunlight penetration and lowers the oxygen content in the water that hampers the water ecosystem.



**85. Why was the African catfish *Clarias gariepinus* introduced?**

- a) Horticulture
- b) Aquaculture
- c) Sericulture
- d) Poultry

**Answer: b**

**Explanation:** The African catfish *Clarias gariepinus* was introduced for aquaculture purposes. The introduction was illegal and posed a threat to the indigenous catfishes in our rivers due to disease introduction, competition, and environmental modification.

**86. Which phenomenon explains that „When a species becomes extinct, the plant and animal species also become extinct that are obligatorily associated with the host species“?**

- a) Aquaculture
- b) Fragmentation
- c) Invasion
- d) Co-extinction

**Answer: d**

**Explanation:** Co-extinction is the phenomenon that tells, when a species becomes extinct, the plant and animal species also become extinct that are obligatorily associated with the host species. If a host is extinct the parasite associated with it is also extinct.

**87. Which phenomenon does the coevolved plant-pollinator mutualism explain?**

- a) Co-extinction
- b) Fragmentation
- c) Invasion
- d) Loss of habitat

**Answer: a**

**Explanation:** The coevolved plant-pollinator mutualism explains the phenomenon of co-extinction. Co-extinction is the phenomenon that tells, when a species becomes extinct, the plant and animal species also become extinct that are obligatorily associated with the host species.

**88. The Earth consists of how many ant species?**

- a) 100,000
- b) 20,000
- c) 200,000
- d) 2000

**Answer: b**

**Explanation:** Ants are eusocial (highly social) insects. They live together in organized colonies. There are approximately 20,000 species of ants on the Earth.



**89. How many species of beetles are present on the Earth?**

- a) 3,00,000
- b) 30,000
- c) 3,000
- d) 300

**Answer: a**

**Explanation:** Beetles are a group of winged insects and eat almost everything. They are prominent decomposers, and there are approximately 3,00,000 species of beetles on the Earth.

**90. How many species of fishes are present on Earth?**

- a) 28,00,000
- b) 28,000
- c) 280
- d) 28

**Answer: b**

**Explanation:** Fishes are limbless cold-blooded vertebrate gill-bearing aquatic craniate animals. They commonly have fins and are covered with scales. There are approximately 28,000 species of fishes on Earth.

**91. Which of the following statements is true?**

- a) Diversity exists only at the species level
- b) Diversity exists only at the macromolecular level
- c) Diversity exists at all levels of biological organization
- d) Diversity exists at the genetic level only

**Answer: c**

**Explanation:** Biodiversity is the variety and variability of all the levels of biological organization (plant and animal life) on Earth. The diversity exists not only at the genetic level but at all levels of biological organization

**92. Who popularized the term biodiversity?**

- a) Rudolf Virchow
- b) Edward Wilson
- c) Gregor Mendel
- d) Robert Koch

**Answer: b**

**Explanation:** Edward Wilson popularized the term biodiversity. Biodiversity is the variety and variability of all the levels of biological organization (plant and animal life) on Earth.

**93. What can a single species show?**

- a) No variation at the genetic level
- b) No diversity at the genetic level
- c) Low diversity at the genetic level
- d) High diversity at the genetic level

**Answer: d**

**Explanation:** Genetic diversity is important among various levels of biodiversity. High genetic diversity can be seen only in a single species.



**94. What is the feature of the biosphere?**

- a) No diversity
- b) Homogeneity
- c) Heterogeneity
- d) Negligible diversity

**Answer: c**

**Explanation:** Biosphere is the total surface and atmosphere integrating all living beings and their relationships of the Earth. The biosphere is heterogeneous in nature and shows immense diversity. Thus heterogeneity is a feature of the biosphere.

**95. How many strains of rice does India have?**

- a) 50
- b) 500
- c) 5,000
- d) 50,000

**Answer: d**

**Explanation:** India consists of approximately 50,000 strains of rice. Rice is an edible starchy cereal grain, seed of the grass species *Oryza*. Rice is said to be the most widely consumed staple food.

**96. How many varieties of mango does India have?**

- a) 2
- b) 10
- c) 1,000
- d) 20

**Answer: c**

**Explanation:** Mango is an edible stone fruit (drupe) belonging to the flowering plant genus *Mangifera*. They grow mostly in tropical areas. India consists of approximately more than 1,000 varieties of mango.

**97. Which organism's species have greater diversity in the Western Ghats than the Eastern Ghats?**

- a) Reptiles
- b) Fishes
- c) Amphibians
- d) Mammals

**Answer: c**

**Explanation:** Amphibians have more species diversity in the Western Ghats than the Eastern Ghats. A chain of mountains running parallel to India's western coast (Sahyadri) and the mountain ranges run parallel to the Bay of Bengal are the western and eastern ghats respectively.

**98. How many years did evolution required?**

- a) Tens
- b) Hundreds
- c) Trillions
- d) Millions

**Answer: d**

**Explanation:** Evolution is the result of the process of slow and gradual changes in millions of years. As





evolution proceeds, organisms become more and more complex. The complexity of organisms can be given by studying various processes of biological organization.

**99. Photosynthesis is the basis of life on earth because \_\_\_\_\_**

- a) It is the main source of all food on earth
- b) It helps in the release of CO<sub>2</sub> into the atmosphere
- c) It produces new offsprings
- d) It gives no energy to plants

**Answer: a**

**Explanation:** Photosynthesis is the basis of life on earth because it is the main source of all food on earth. It is also responsible for the release of oxygen into the atmosphere. It does not produce new offsprings but gives energy or glucose to the plants in the form of starch.

**100. Other than CO<sub>2</sub> and light, which is used as the raw material for photosynthesis?**

- a) O<sub>2</sub>
- b) CO<sub>2</sub>
- c) H<sub>2</sub>O
- d) MnO<sub>2</sub>

**Answer: c**

**Explanation:** The raw materials of photosynthesis are carbon dioxide and water in the presence of sunlight. And its final products are glucose, water, and oxygen. These substances are the most abundant materials on earth and provide equivalent oxygen to atmosphere.

**101. Among the following, which compound does not play an important role in photosynthesis?**

- a) Xanthophyll
- b) Anthocyanin
- c) Chlorophyll
- d) Phycoerythrin

**Answer: b**

**Explanation:** Anthocyanin does not play an important role in photosynthesis whereas the others have an important role. Anthocyanin main role is to provide blue, red and purple color to the plants. It also protects the plants from high temperatures and abiotic stresses.

**102. What do we call the organism that does photosynthesis but does not release oxygen?**

- a) Green sulfur bacterium
- b) Blue-green algae
- c) Green algae
- d) Green plants

**Answer: a**

**Explanation:** Green sulfur bacterium does photosynthesis but does not release oxygen. They are anoxygenic. They use H<sub>2</sub>S as a substitute for water and utilize sulfide ions to form sulfur and water. No oxygen is formed.





**103. Who found out that oxygen evolved from water in photosynthesis?**

- a) T. W. Engelmann
- b) C. Van Neil
- c) R. Hill
- d) Ruben and Kamen

**Answer: c**

**Explanation:** R. Hill found out that oxygen evolved from water in photosynthesis. It was believed that oxygen came from carbon dioxide. Later, Hill's reaction showed that oxygen was produced from water.

**104. Why is light energy used in photosynthesis?**

- a) Reduction of H<sub>2</sub>O
- b) Reduction of CO<sub>2</sub>
- c) Activation of chlorophyll
- d) Oxidation of C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>

**Answer: c**

**Explanation:** Light energy is mainly used in photosynthesis for activation of chlorophyll. Chlorophyll is in an inactive state. It becomes active only in the presence of sunlight. These rays fall on chloroplast which in turn activates the chlorophyll.

**105. During photosynthesis, which light is least effective?**

- a) Greenlight
- b) Sunlight
- c) Yellow light
- d) Blue light

**Answer: a**

**Explanation:** Greenlight is the least effective among the following. Greenlight is reflected by green leaves, so cannot be absorbed. But blue light gives maximum absorption peak of chlorophyll and is most effective.

**106. Which of these is not an internal factor affecting photosynthesis?**

- a) Size
- b) Age
- c) Number
- d) Water

**Answer: d**

**Explanation:** Various internal and external factors affect the rate of photosynthesis, which in turn affects the overall productivity and yield of the plant. Size, age and number are internal factors while water is an external factor.

**106. What do the internal factors affecting photosynthesis dependent on?**

- a) External factors
- b) Geographical area
- c) Genetic predisposition
- d) Species and sub-species

**Answer: c**



**Explanation:** The genetic predisposition or the genetic make up of a plant is an internal factor that affects the rate of photosynthesis. The arrangement of genes present in the plant is expressed in a certain way in different plants.

**107. Which of these is not an external factor affecting photosynthesis?**

- a) Sunlight
- b) Temperature
- c) Leaf orientation
- d) CO<sub>2</sub> concentration

**Answer: c**

**Explanation:** Various internal and external factors affect the rate of photosynthesis, which in turn affects the overall productivity and yield of the plant. Sunlight, temperature and CO<sub>2</sub> concentration are external factors.

**108. Which scientist gave the Law of Limiting Factors?**

- a) Hooke
- b) Blackman
- c) Fleming
- d) Mendel

**Answer: b**

**Explanation:** Blackman gave the Law of Limiting Factors in 1905. It states that if multiple factors affect a process, then the rate of the process is determined by the factor which is the closest to its minimal value.

**109. At what percentage of sunlight does light saturation occur?**

- a) 30
- b) 20
- c) 10
- d) 15

**Answer: c**

**Explanation:** Light is an external factor that affects the rate of photosynthesis. Light saturation occurs at 10% of full sunlight. At high light intensities, the rate of photosynthesis does not increase linearly.

<b>Prepared By</b> Katkar Y.T.	<b>Verified By</b> Navale S N. Module Coordinator	<b>Re-Verified By</b> Navale S N Academic Coordinator	<b>Approved By</b> Tupe S G HoD E&Tc



### Question Bank for Multiple Choice Questions

<b>Program: Diploma in Computer Engineering</b>	<b>Program Code:- CO</b>
<b>Scheme:-I</b>	<b>Semester:- V</b>
<b>Course:- Environmental Studies</b>	<b>Course Code:- 22447</b>

<b>04- Environmental pollution</b>	<b>Marks:-20</b>
<b>Content of Chapter:-</b> 41 Definition of pollution, types- Natural & Artificial (Man- made). 42 Soil/Land Pollution-Causes and effects on environment and lives , preventive measures. 43 Water Pollution - Sources of water(surface and sub surface),sources of water pollution,Effect on environment and lives,preventive measures,BIS Water quality standard,flow diagram of water treatment plant,water conservation. 44 Wastewater - Generation(domestic and industrial), Impacts, flow diagram of sewage treatment plant, CPCB norms of sewage discharge. 45 Air pollution-Causes, effects,prevention,Ambient air quality standards. 46 Noise pollution-Sources,effects,prevention,noise levels at various zones of the city. 47 Municipal solid waste Bio-medical waste and E-waste-Sources,generation,characteristics,effects, and methods to manage.	

#### 1. When did the air pollution on earth happened first time?

- a) When humans started using tools
- b) When humans started using firewood
- c) When humans started using clothes
- d) When humans started using wheels

**Answer: b**

**Explanation:** The origin of air pollution on earth can be traced when humans started using firewood as a means of cooking and heating food items. Back in 400 BC itself, Hippocrates mentioned air pollution. As the years passed air pollution keeps on increasing.

#### 2. What are secondary pollutants?

- a) Pollutants due to fire
- b) Pollutants due to emission
- c) Pollutants due to a chemical reaction
- d) Pollutants due to oxidation

**Answer: c**

**Explanation:** The pollutants produced in the atmosphere when certain chemicals reactions take place among the primary pollutants are called secondary pollutants. Some of the examples of secondary pollutants are sulphuric acid, nitric acid and carbonic acid.



**3. Which is the colorless, odorless and toxic gas which produced when organic materials incompletely burn?**

- a) Sulphur oxide
- b) Carbon monoxide
- c) Oxygen
- d) Particulates

**Answer: b**

**Explanation:** Vehicular exhausts are the largest single source of carbon monoxide. It is a colorless, odorless and toxic gas produced when organic materials like natural gas or wood are incompletely burnt.

**4. Which of the following cause soot in the environment?**

- a) Hydrocarbons
- b) Nitrogen oxide
- c) Sulphur oxide
- d) Particulates

**Answer: d**

**Explanation:** Particulates are small pieces of solid material like dust particles and ash from industries which dispersed into the atmosphere. Repeated exposure to particulates causes them to accumulate in the lungs and cause severe problems.

**5. What is aerosol?**

- a) General term for particles in air
- b) General term for particles in soil
- c) General term for particles in water
- d) General term for particles inside humans

**Answer: a**

**Explanation:** Aerosol is a general term which is used to express the meaning for the particles which are suspended in air. This aerosol contributes to air pollutants as they join other materials in the atmosphere. Sprays from pressurized cans are an example of aerosol.

**6. What is smog?**

- a) Mixture of smoke and particulates
- b) Mixture of smoke and oxygen
- c) Mixture of smoke and fog
- d) Mixture of soot and fog

**Answer: c**

**Explanation:** Aerosol is a general term for particles suspended in air. Those aerosols when came into contact with water droplets they constitute fog. So smog is a term used to describe a mixture of smoke and fog.



7. Aerosol + solid particles + liquid particles results in \_\_\_\_\_

- a) Dust
- b) Mist
- c) Smog
- d) Smoke

**Answer: d**

**Explanation:** Aerosol consisting of solid particles or a mixture of solid and liquid particles produced by chemical reactions such as fire is known as smoke. Smoke from the burning forest, cigarette smoke, smoke by chimneys is some of the examples of smoke.

8. Which is responsible for the greatest exposure to carbon dioxide for living organisms?

- a) Hurricanes
- b) Soil erosion
- c) Vehicles emission
- d) Cigarette smoking

**Answer: d**

**Explanation:** Cigarette smoking is responsible for the greatest exposure to carbon monoxide. Exposure to air containing even 0.001% of carbon monoxide for few hours can cause collapse, coma and even death in the worst case.

9. How excessive water loss takes place in plants?

- a) Due to soil pollution
- b) Due to mutation
- c) Due to air pollution
- d) Due to improper seed

**Answer: c**

**Explanation:** The leaves of plants are damaged when some gaseous pollutants enter the pores of the leaf. Chronic exposure of the leaves to air pollutants can break down the waxy coating that helps prevent excessive water loss in plants.

10. How does asthma cause to human beings?

- a) Because of excessive diet
- b) Because of water pollution
- c) Because of air pollution
- d) Because of soil pollution

**Answer: c**

**Explanation:** Asthma is one of the health impacts that are caused due to air pollution. There are many health impacts especially respiratory impacts on human beings. Asthma is caused due to excessive inhale of sulphur dioxide and smoking.



**11. What is the reason for reduced in the plant growth?**

- a) Excessive exposure to sunlight
- b) Excessive exposure to wind
- c) Excessive exposure to water pollution
- d) Excessive exposure to air pollution

**Answer: d**

**Explanation:** Reduced in the plant growth is due to the chronic exposure of air pollution on the plants. Reduced plant growth is an effect due to the impact of plants of air pollution. Chronic exposure interferes with photosynthesis and plant growth in the plants.

**12. Which dioxide damages the flower process in plants?**

- a) Sulphur dioxide
- b) Carbon dioxide
- c) Nitrite dioxide
- d) Magnesium dioxide

**Answer: a**

**Explanation:** Sulphur dioxide released due to air pollution caused damages to living organisms. Higher concentration of sulphur dioxide results in the formation of flowers. The flower buds become stiff and hard. They fall from the plants, as they are unable to flower.

**13. What is the main reason for ozone depletion?**

- a) Releasing of oxygen
- b) Releasing of chemicals
- c) Releasing of CFCs
- d) Releasing of nitrogen

**Answer: c**

**Explanation:** Chlorofluorocarbons (CFCs) are extremely stable, non-flammable. CFCs leading in the ozone layer depletion. India signed the Montreal Protocol in 1992, which aimed at controlling the production and consumption of ozone depleting substances.

**14. Which of the following component is more dangerous to ozone layer?**

- a) CFCs
- b) Nitrogen
- c) Halons
- d) Sulphur

**Answer: c**

**Explanation:** Halons are similar to structure to CFCs but it contains bromine instead of chlorine. CFCs and halons migrate into the upper atmosphere after they are released and caused damage to the ozone layer. Halons are more dangerous to the ozone layer than CFCs.





**15. Why ozone depletion more over the South Pole?**

- a) Due to uneven disturbance of CFCs
- b) Due to extreme weather conditions in the Antarctic atmosphere
- c) Due to cyclonic depression in South Pole
- d) Due to extreme pressure

**Answer: b**

**Explanation:** Despite the fact that CFCs are evenly distributed over the globe, ozone depletion is especially pronounced over the South Pole due to extreme weather conditions in the Antarctic atmosphere.

**16. When did India signed the Montreal Protocol?**

- a) 1990
- b) 1991
- c) 1992
- d) 1993

**Answer: c**

**Explanation:** India signed the Montreal Protocol in 1992. The aim is to control the production and consumption of ozone depleting substances. It was set up as an example of a successful international agreement.

**17. In which temperature soil develops slowly?**

- a) Summer
- b) Wind
- c) Rainy
- d) Cold

**Answer: d**

**Explanation:** Climate and time play an important role in the development of soils. In extremely dry or cold climates, soils develop very slowly, while in humid and warm climates soil develop more rapidly due to favourable climatic conditions.

**18. What is called for the matured soils which are arranged in a series of zones?**

- a) Soil zones
- b) Soil layers
- c) Soil horizons
- d) Soil benches

**Answer: c**

**Explanation:** Mature soils are arranged in a series of zones called soil horizons. Each horizon has a distinct texture and composition that varies with the different types of soil. This soil horizon helps to discriminate different types of soils.





**19. How many horizons are there in soils?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: d**

**Explanation:** There are four horizons in soils. The top layer is known as O-horizon. The uppermost layer of soil called as the A-horizon. The B-horizon called the subsoil, it contains less organic material. The area below the subsoil is called as the C-horizon.

**20. What is called for the mixture of all the contents of soil?**

- a) Erosion
- b) Sublimation
- c) Degradation
- d) Loams

**Answer: d**

**Explanation:** Soil varies in their content of clay, silt, sand and gravel. The relative amounts of the different sizes and types of mineral particles determine the soil texture. Soils with an approximately equal mixture of clay, sand, silt and humus are called loams.

**21. Why area treatment is important for soil?**

- a) To reduces the impact of raindrops on the soil
- b) To maximize surface run-off
- c) Not treating the upper catchment and proceeds towards an outlet
- d) Not storing surplus rainwater

**Answer: a**

**Explanation:** Area treatment in soil reduces the impact of raindrops on the soil. The treatment measures are to develop vegetation cover on non-arable land. It effects in minimum disturbance and displacement of soil particles.

**22. What is oxygen depleting waste?**

- a) Organic waste that can be decomposed by aerobic bacteria
- b) Organic waste that can be decomposed by anaerobic bacteria
- c) Organic waste that can be decomposed by aerobic viruses
- d) Organic waste that can be decomposed by anaerobic viruses

**Answer: a**

**Explanation:** Oxygen depleting waste is organic that can be decomposed by aerobic bacteria. Large populations of bacteria use up the oxygen present in the water in order to degrade these wastes. This degrades the water quality as it uses up the oxygen.



**23. What is the indicator of pollution in water?**

- a) Amount of oxygen
- b) Amount of hydrogen
- c) Amount of BOD
- d) Amount of nitrogen

**Answer: c**

**Explanation:** The amount of oxygen required to break down a certain amount of organic matter is called the biological oxygen demand (BOD). The amount of BOD in water is an indicator of the level of pollution.

**24. What are water soluble inorganic chemicals?**

- a) Compounds of pure metals
- b) Compounds of non-metals
- c) Compounds of synthetic metals
- d) Compounds of toxic metals

**Answer: d**

**Explanation:** Water soluble inorganic chemicals are acids, salts and compounds of toxic metals such as mercury and lead. High levels of these chemicals can make the water unfit to drink and harm fish and other aquatic life.

**25. What is noise?**

- a) Desirable sound
- b) Desirable and unwanted sound
- c) Undesirable and unwanted sound
- d) Undesirable and wanted sound

**Answer: c**

**Explanation:** Noise is defined as an undesirable and unwanted sound. Noise pollution affects human health and can contribute to a general deterioration of environmental quality. Several sources of noise pollution contribute to both indoor and outdoor noise pollution.

**26. In which unit sound is measured?**

- a) Kilometer
- b) Pascal
- c) Kilogram
- d) Decibel

**Answer: d**

**Explanation:** Noise pollution is measured in terms of decibel (dB). This parameter depends on the various environmental conditions. If the decibel level increased than the threshold it causes problems to humans and other organisms.



**27. Which pollution cause hearing loss in organisms?**

- a) Air pollution
- b) Noise pollution
- c) Water pollution
- d) Soil pollution

**Answer: b**

**Explanation:** Noise pollution can cause various health impacts on humans and other organisms. This health impacts leads to various issues like reduced in the mental health, hearing loss either temporary or permanent, loss in efficiency and many more.

**28. How many fundamental ways in which noise can b controlled?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: d**

**Explanation:** There are four fundamental ways in which noise can be controlled. a) Reduce noise at the source. b) Block the path of noise. c) Increase the path length. d) Protect the recipient. These four noise controlling ways reduce the noise pollution.

**29. Which is the best way to control noise pollution among the four fundamental ways?**

- a) Reduce noise at the source
- b) Block the path of noise
- c) Increase the path length
- d) Protect the recipient

**Answer: a**

**Explanation:** The best control method for noise pollution is to reduce the noise levels at the source. We a noise is reduced at the source tan pollution won't occurrence in the proceeding steps and thus it won't affect any organisms.

**30. How can we reduce the noise in industries?**

- a) By not using the heavy machinery
- b) By using rigid sealed enclosures
- c) By using more robotics
- d) By reduce the production of the industries

**Answer: b**

**Explanation:** In industries, noise reduction can be done by using rigid sealed enclosures around machinery, lined with acoustic absorbing material. Isolated machines and their enclosures from the floor can reduce the noise pollution at the source.



**31. What is the main source of vehicular noise?**

- a) High speed
- b) Movement of the vehicle's tyres on the pavement
- c) Low pressure
- d) Fuel engine

**Answer: b**

**Explanation:** Most of the vehicular noise comes from the movement of the vehicle's tyres on the pavement and wind resistance. Poorly maintained vehicles can also increase the noise pollution in the vehicles.

**32. Which of the following is a way to reduce the traffic noise in the highway?**

- a) Constructing the vertical barriers
- b) Increase the speed of the vehicles
- c) Using old engine vehicles
- d) Horning in unnecessary time

**Answer: a**

**Explanation:** The path of traffic noise can be locked by constructing vertical barriers along the highways. Proper highway planning and design are essential for controlling traffic noise. Establishing lower speed limits for highways also reduced the noise.

**33. What is called when an industry removes water from a source and then returns the heated water to its source?**

- a) Water pollution
- b) Soil pollution
- c) Air pollution
- d) Thermal pollution

**Answer: d**

**Explanation:** Thermal pollution occurs when an industry removes water from a source, uses the water for cooling purposes, and then returns the heated water to its source such as lakes, rivers and even oceans.

**34. Which one of the following can cause thermal pollution?**

- a) Residential houses
- b) Power plants
- c) Death of marine organisms
- d) Oil spill

**Answer: b**

**Explanation:** Power plants can cause thermal pollution. Thermal pollution refers to the degradation of water quality as a result of any process that changes the ambient water temperature. Power plants discharge heated water, which is at least 15 Celsius higher than the normal and it is back into a water body.



**35. What is the effect of warmer temperature to the fishes?**

- a) Increase the metabolism
- b) Decrease the metabolism
- c) Stabilize the metabolism
- d) Increase the solubility of oxygen

**Answer: a**

**Explanation:** The warmer temperature decreases the solubility of oxygen and increase the metabolism of fish. This changes the ecological balance of the river. Within certain limits, thermal additions can promote the certain fish and fish catch may be high in the vicinity of a power plant.

**36. Why burning waste is not an acceptable practice of solid waste management?**

- a) Because it is very costly
- b) Because it requires modern technologies
- c) Because it cause several environmental issues
- d) Because it requires lot of space

**Answer: c**

**Explanation:** Burning waste is not an acceptable practice, because if we look into environmental or health prospective burning waste creates lots of pollution and it is harmful to both environment and as well as organisms.

**37. What plan should we make to the disposal of solid waste?**

- a) Integrated waste management plan
- b) Recycling of waste management plan
- c) Reducing of waste management plan
- d) Use of waste management plan

**Answer: a**

**Explanation:** The disposal of solid waste should be part of an integrated waste management plan. This integrated solid waste management is the method of collection, processing, resource recovery and final disposal of solid waste.

**38. How many main components are there in integrated waste management?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: c**

**Explanation:** An integrated waste management strategy includes three main components they are source reduction, recycling and disposal. All these three types plays an important role in the solid waste management.



**39. Which of the integrated waste management is reduced on an individual level?**

- a) Source reduction
- b) Recycling
- c) Disposal
- d) Burning

**Answer: a**

**Explanation:** Source reduction is one of the fundamental ways to reduce waste. On an individual level, we can reduce the use of unnecessary items while shopping, avoid buying disposable items and avoid using plastic carry bags.

**40. Who prepared the Ganga Action Plan?**

- a) Department of Pollution
- b) Department of Environment
- c) Department of Rivers
- d) Department of Industries

**Answer: b**

**Explanation:** Department of Environment prepared an action plan for an immediate reduction of pollution load on the river Ganga. The Cabinet approved the Ganga Action Plan as a 100 percent centrally sponsored scheme.

**41. In which temperature soil develops slowly?**

- a) Summer
- b) Wind
- c) Rainy
- d) Cold

**Answer: d**

**Explanation:** Climate and time play an important role in the development of soils. In extremely dry or cold climates, soils develop very slowly, while in humid and warm climates soil develop more rapidly due to favourable climatic conditions.

**42. Under ideal climatic conditions how many cms of soil is developed?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: a**

**Explanation:** Under ideal climatic conditions, soft parent material may develop into 1 cm of soil within 15 years. Under poor climatic conditions, hard parent material may require hundreds of years to develop into the soil.





43. What is called for the matured soils which are arranged in a series of zones?

- a) Soil zones
- b) Soil layers
- c) Soil horizons
- d) Soil benches

**Answer: c**

**Explanation:** Mature soils are arranged in a series of zones called soil horizons. Each horizon has a distinct texture and composition that varies with the different types of soil. This soil horizon helps to discriminate different types of soils.

44. What is soil profile?

- a) A cross sectional view of the horizons in a soil
- b) A front view of the horizons in a soil
- c) A cross sectional view of the horizons in rocks
- d) A front view of the horizons in rocks

**Answer: a**

**Explanation:** A cross-sectional view of the horizon in a soil is called a soil profile. This soil profile can be able to identify the special characteristics present in the soils and this can be used as a referral while studying a soil pollution caused by different soils.

45. How many horizons are there in soils?

- a) One
- b) Two
- c) Three
- d) Four

**Answer: d**

**Explanation:** There are four horizons in soils. The top layer is known as O-horizon. The uppermost layer of soil is called as the A-horizon. The B-horizon is called the subsoil, it contains less organic material. The area below the subsoil is called as the C-horizon.

46. Which horizon helps to determine the pH of the soil?

- a) A
- b) B
- c) C
- d) O

**Answer: c**

**Explanation:** The chemical composition of the C-horizon helps to determine the pH of the soil and also influences the soil's rate of water absorption and it also C-horizon helps in the process of retention of water.





47. What is called for the mixture of all the contents of soil?

- a) Erosion
- b) Sublimation
- c) Degradation
- d) Loams

**Answer:d**

**Explanation:** Soil varies in their content of clay, silt, sand and gravel. The relative amounts of the different sizes and types of mineral particles determine the soil texture. Soils with an approximately equal mixture of clay, sand, slit and humus are called loams.

48. Why area treatment is important for soil?

- a) To reduces the impact of raindrops on the soil
- b) To maximize surface run-off
- c) Not treating the upper catchment and proceeds towards an outlet
- d) Not storing surplus rainwater

**Answer: a**

**Explanation:** Area treatment in soil reduces the impact of raindrops on the soil. The treatment measures are to develop vegetation cover on non-arable land. It effects in minimum disturbance and displacement of soil particles.

49. What is called for the movement of surface litter and topsoil from one place to another?

- a) Soil submerge
- b) Soil degradation
- c) Soil erosion
- d) Soil pollution

**Answer: c**

**Explanation:** Soil erosion is a natural process, it is often caused by wind and flowing water. It is greatly accelerated by human activities such as farming, construction, over grazing by livestock and burning of grass cover and deforestation.

50. Why continuous contour trenches are used?

- a) To decrease the infiltration of air
- b) To enhance the infiltration of air
- c) To decrease the infiltration of water
- d) To enhance the infiltration of water

**Answer: d**

**Explanation:** Continuous contour trenches can be used to enhance the infiltration of water. It also used to reduce the run-off and check soil erosion. In areas with steep slopes where bunds are not possible, continuous contour benches are used for the same purpose.



51. What is used to convert wastelands into agricultural lands?

- a) Check dams
- b) Water purifier
- c) Rain harvesters
- d) Gradonies

**Answer: d**

**Explanation:** Gradonies can be used to convert wastelands into agricultural lands. In this, narrow trenches with buds on the downstream side are built along contours in the upper reaches of the catchment to collect run-off and to conserve moisture from the trees.

52. Organic agriculture advocates avoiding the use of \_\_\_\_\_

- a) Organic manure
- b) Stored water
- c) Modern technologies in harvesting
- d) Chemical fertilizers

**Answer: d**

**Explanation:** Organic agriculture advocates avoiding the use of chemical fertilizers and pesticides. This chemical fertilizers cause soil pollution and it also harms the health of organisms including humans which depend on plants for food.

53. What is the disadvantage of control measures of thermal pollution by passing the heated water?

- a) Water is lost due to leakage
- b) Water is lost due to absorption
- c) Water is lost due to dilution
- d) Water is lost due to evaporation

**Answer: d**

**Explanation:** Thermal pollution can be controlled by passing the heated water through a large shallow cooling pond into which hot water is pumped and a cooling tower after it leaves the condenser. In both the cases large amounts of water are lost to evaporation.

54. Which one of the following cause thermal pollution?

- a) Release of cold water
- b) Organic manures
- c) Purified water
- d) More number of trees

**Answer: a**

**Explanation:** Release of cold water caused thermal pollution apart for that none of the above given options contribute for thermal pollution. Many industries liberate very cool water from their reservoirs. This water when mixed up with warm water rivers it creates a misbalance in the water bodies.



55. How does soil erosion cause thermal pollution?

- a) By making natural water bodies to hold in its normal level
- b) By polluting the water bodies
- c) By avoiding sunlight to fall on the water bodies
- d) By making natural water bodies to rise beyond their normal level

**Answer: d**

**Explanation:** Soil erosion is one of the main causes of thermal pollution. Soil erosion makes natural water bodies to rise beyond their normal level. Thus, they get more exposed to sunlight and cause thermal pollution.

56. What is a thermal shock?

- a) Sudden raises of temperature to abnormal level
- b) Sudden cooling of temperature to abnormal level
- c) Temperature don't change
- d) Temperature change only due to environmental factors

**Answer: a**

**Explanation:** Thermal shock resulting in a rise in temperature of water bodies. When industries and factories dispose the water into water bodies the temperature suddenly raises to an abnormal level. This acts as a thermal shock for aquatic life.

57. What is the main effect of thermal pollution to the oxygen solubility in water bodies?

- a) They increase the solubility of oxygen in water bodies
- b) They maintain the solubility of oxygen in water bodies
- c) They reduce the solubility of oxygen in water bodies
- d) They don't cause any affect in solubility of oxygen to the water bodies

**Answer: c**

**Explanation:** One of the main effects of thermal pollution is they reduced the solubility of oxygen in water bodies. This less solubility of oxygen in water mainly affects the metabolism of water animals and thus it leads to death of aquatic animals.

58. Which of the following is the main reason for thermal pollution?

- a) Bio fuels
- b) Organic farming
- c) Eco friendly vehicles
- d) Power plants

**Answer: d**

**Explanation:** Power plants are the main reasons behind growing thermal pollution. Because power plants use water as a cooling agent for cooling down their machines. This used water is in high temperature and it is released back to the water bodies and cause thermal pollution.



59. How does an artificial lake help in solving thermal pollution?

- a) It stores heated water
- b) It gives a good aesthetic view
- c) It helps to breed fishes
- d) It is used during the summer season where water scarcity cause

**Answer: a**

**Explanation:** Artificial lakes help in preventing thermal pollution. In artificial lakes, heated water can be stored easily. These lakes are very helpful for normalizing the temperature of the hot water. Hot water will not be disposed back to the natural water bodies.

60. What is called for the useless heat from hot water recycled by industries?

- a) Cooling towers
- b) Recycling
- c) Heat pump
- d) Co-generation

**Answer: d**

**Explanation:** Co-generation can be helpful to combat thermal pollution. In the process of co-generation, the useless heat from hot water can be recycled and used smartly in many tasks by industries. Thus this process prevents thermal pollution.

61. Generally how many types of cooling towers are there?

- a) One
- b) Two
- c) Three
- d) Four

**Answer: b**

**Explanation:** Generally the cooling towers are of two types they are, wet cooling tower and the dry cooling tower. In wet cooling tower, the heated water gets spread upon the flow directing panels. In the dry cooling tower, the heated water is made to flow in circular elongated pipes.

62. When did the air pollution on earth happen first time?

- a) When humans started using tools
- b) When humans started using firewood
- c) When humans started using clothes
- d) When humans started using wheels

**Answer: b**

**Explanation:** The origin of air pollution on earth can be traced when humans started using firewood as a means of cooking and heating food items. Back in 400 BC itself, Hippocrates mentioned air pollution. As the years passed air pollution keeps on increasing.



63. Who made the first anti-pollution law?

- a) Martin Luther King
- b) Nelson Mandela
- c) Queen Elizabeth
- d) King Edward 1

**Answer: d**

**Explanation:** King Edward 1 makes the first anti-pollution law to restrict people from using coal for domestic heating in the year 1273. In 1300 another act for banning the use of coal passed. Defying the law led to severe punishment.

64. Which was the first major disaster of air pollution?

- a) New York smog
- b) London smog
- c) Paris smog
- d) Delhi smog

**Answer: b**

**Explanation:** Air pollution became a serious problem in London during the Industrial Revolution. The earliest recorded major disaster was the London smog that occurred in 1952, which resulted in more than 4000 deaths.

65. What is the significance of black color moth in Europe during 19th century?

- a) Indication of evolution
- b) Indication of soil pollution
- c) Indication of mutation
- d) Indication of air pollution

**Answer: d**

**Explanation:** In Europe during 19th century, a black form of the peppered moth began appearing in industrial areas. The normal pepper patterned moths were successful in surviving in clean non-industrial areas, only black colored moths were successfully adopted themselves in industrial areas.

66. What is the main cause of increase in air pollution in the 20th century?

- a) Development of the transport system
- b) Development of infrastructures
- c) Development of electricity
- d) Development of water resources

**Answer: a**

**Explanation:** In 20th-century air pollution began to increase with the development of transportation systems and the large scale use of petrol and diesel usage. Pollution due to auto exhaust is a serious environmental issue.



67. How many primary pollutants are there?

- a) Three
- b) Five
- c) Seven
- d) Nine

**Answer: b**

**Explanation:** Pollutants that are emitted from identified sources which are produced by both by natural events and by manmade activities are known as primary pollutants. The five primary pollutants are carbon oxides, nitrogen oxides, sulphur oxides, volatile organic compounds and suspended particulate matter.

68. What are secondary pollutants?

- a) Pollutants due to fire
- b) Pollutants due to emission
- c) Pollutants due to a chemical reaction
- d) Pollutants due to oxidation

**Answer: c**

**Explanation:** The pollutants produced in the atmosphere when certain chemicals reactions take place among the primary pollutants are called secondary pollutants. Some of the examples of secondary pollutants are sulphuric acid, nitric acid and carbonic acid.

69. Which is the colorless, odorless and toxic gas which produced when organic materials incompletely burn?

- a) Sulphur oxide
- b) Carbon monoxide
- c) Oxygen
- d) Particulates

**Answer: b**

**Explanation:** Vehicular exhausts are the largest single source of carbon monoxide. It is a colorless, odorless and toxic gas produced when organic materials like natural gas or wood are incompletely burnt.

70. Which of the following cause soot in the environment?

- a) Hydrocarbons
- b) Nitrogen oxide
- c) Sulphur oxide
- d) Particulates

**Answer: d**

**Explanation:** Particulates are small pieces of solid material like dust particles and ash from industries which dispersed into the atmosphere. Repeated exposure to particulates causes them to accumulate in the lungs and cause severe problems.





71. What is aerosol?

- a) General term for particles in air
- b) General term for particles in soil
- c) General term for particles in water
- d) General term for particles inside humans

**Answer: a**

**Explanation:** Aerosol is a general term which is used to express the meaning for the particles which are suspended in air. This aerosol contributes to air pollutants as they join other materials in the atmosphere. Sprays from pressurized cans are an example of aerosol.

72. Aerosol + solid particles + liquid particles results in \_\_\_\_\_

- a) Dust
- b) Mist
- c) Smog
- d) Smoke

**Answer: d**

**Explanation:** Aerosol consisting of solid particles or a mixture of solid and liquid particles produced by chemical reactions such as fire is known as smoke. Smoke from the burning forest, cigarette smoke, smoke by chimneys is some of the examples of smoke.

73. What is called for the pollution that can be traced directly to industrial activity?

- a) Soil pollution
- b) Water pollution
- c) Air pollution
- d) Industrial pollution

**Answer: d**

**Explanation:** Industrial pollution is pollution which can be directly related to industry, in comparison to other pollution sources. Due to its and scope, industrial pollution is a serious problem for the entire planet.

74. Which of the following are the largest contributors to global pollution?

- a) Soil pollution
- b) Industrial pollution
- c) Radioactive pollution
- d) Water pollution

**Answer: b**

**Explanation:** Industrial waste which creates industrial pollution is the largest contributors to global pollution which endangers the people and environment. Industrial pollution contaminates the environment.





75. Which of the following is the consequence of industrial pollution?

- a) Increase in the water level in seas
- b) Releases of the hazardous radiations
- c) Increase in the animals in forests
- d) Global warming

**Answer: d**

**Explanation:** Global warming is one of the most common and serious consequences of industrial pollution. The emission of various greenhouse gases such as carbon dioxide, methane from various industries increases the overall temperature of the earth, resulting in global temperature.

76. How do industrial pollution results in water pollution?

- a) Dumping of various waste products from industries
- b) Taking water bodies places to built industries
- c) Industries which uses all the water from the water bodies and cause scarcity of water
- d) Building of purification unit in the industries

**Answer: a**

**Explanation:** Dumping of various industrial waste products into water sources and improper contamination of industrial wastes often result in polluting the water. This water pollution disturbs the balance of ecosystem.

77. Which one of the following is the prime factor towards soil pollution?

- a) Soil erosion
- b) Floods
- c) Dumping of industrial wastes
- d) Using land for irrigation

**Answer: c**

**Explanation:** Dumping of industrial wastes contain large amounts of various chemicals which get accumulated on the top layer of soil, resulting in loss of fertility of the soil. Such loss of fertility ultimately results in changes in the ecological balances.

78. Which one of the following industries produced Sulfur dioxide and flu ash as pollutants?

- a) Textile industries
- b) Cottage industries
- c) Thermal industries
- d) Coal industries

**Answer: c**

**Explanation:** Thermal industries produced sulfur dioxide and flu as ash as pollutants. Sulfur dioxide is a colorless gas. In thermal industries a reduction in the atmosphere emissions of Sulfur dioxide produced by fossil fuel combustion.



79. Which one of the following is a mechanical means of treating industrial effluents?

- a) Oxidation
- b) Chlorination
- c) Recycling of waste
- d) Sedimentation

**Answer: d**

Sedimentation refers to the process during which particles suspended in water tend to settle out. In another words sedimentation is the process of depositing sediment. Sedimentation is the building up of layers of small particles like sand or mud.

80. Which one of the following is not normally a pollutant?

- a) Carbon dioxide
- b) Carbon monoxide
- c) Sulphur dioxide
- d) Hydrocarbons

**Answer: a**

**Explanation:** Pollutants are the contaminations that make the environment impure and which don't play a role in the maintenance of the environment in balance. Carbon dioxide plays an enormous role in the development and sustainability of all life.

81. Why industries pollute water?

- a) Because they use water in large quantities
- b) Because they release all the pollutants to water
- c) Because industries don't use water
- d) Because water is an universal solvent

**Answer: b**

**Explanation:** Industries cause water pollution. Some industries need water in large amounts, they pollute water during use of it in their process. They release heavy metals, sediment pollution and other pollutants.

82. Which one of the following is the cause of industrial pollution?

- a) Modern technologies
- b) Efficient waste disposal
- c) Efficient government policies
- d) Unplanned industrial growth

**Answer: d**

**Explanation:** After the industrial revolution there has been a raising rate of waste from cities to small towns that has affected the life of organisms including humans. The main reason for this is unplanned in industrial growth.



83. Which one of the following is the main cause of air pollution?

- a) Decrease in the factories
- b) Increase in the factories
- c) Increase in the seawater level
- d) Increase in the modern technologies

**Answer: b**

**Explanation:** Industrial pollution is one of the main causes of air pollution. Increase in factories and manufacturing processes both large and small scale, gaseous emissions have continued to compound. This makes industrial pollution one of the main causes of air pollution.

84. When did the Central Pollution Control Board established?

- a) 1970
- b) 1972
- c) 1974
- d) 1976

**Answer: c**

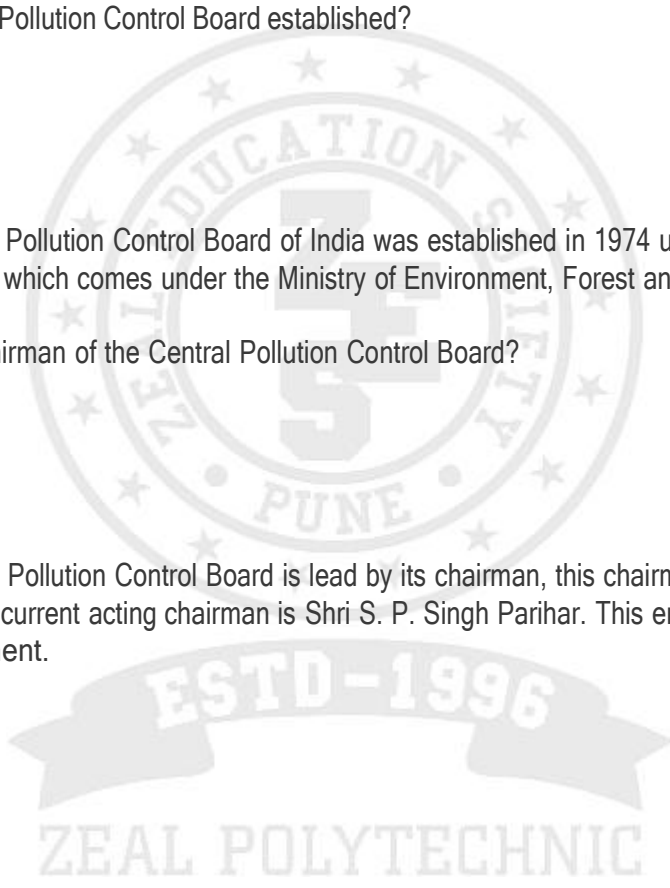
**Explanation:** The Central Pollution Control Board of India was established in 1974 under the Water Act. It is a statutory organization which comes under the Ministry of Environment, Forest and Climate Change.

85. Who appoints the chairman of the Central Pollution Control Board?

- a) Central Government
- b) State Government
- c) Governor of the State
- d) President of India

**Answer: a**

**Explanation:** The Central Pollution Control Board is lead by its chairman, this chairman is appointed by the Central Government. The current acting chairman is Shri S. P. Singh Parihar. This entire board comes under Central Government.





86. Which one of the following is the apex organization in the country in the field of pollution control?

- a) Water Pollution Control Board
- b) State Pollution Control Board
- c) Central Pollution Control Board
- d) Air pollution Control Board

**Answer: c**

**Explanation:** The Central Pollution Control Board is the apex organization in the country in the field of pollution control. It is a technical wing of Ministry of Environment and Forest. It comes under Government of India.

87. Where is the head office of the Central Pollution Control Board?

- a) Mumbai
- b) Raipur
- c) Mysore
- d) New Delhi

**Answer: d**

**Explanation:** The head office of the Central Pollution Control Board located in New Delhi. It consists of seven zonal offices and five laboratories. Here the board conducts environmental assessments and research.

88. What is the full form of NAMP?

- a) National Air Quality Monitoring Program
- b) National Air Quality Measuring Program
- c) National Air Quantity Monitoring Program
- d) National Air Quality Monitoring Protocol

**Answer: a**

**Explanation:** NAMP stand for National Air Quality Monitoring Program. The Central Pollution Control Board runs nationwide programs of ambient air quality monitoring which is known as National Air Quality Monitoring Program.

89. In how many tier programs the inland water quality monitoring network is operating?

- a) One
- b) Two
- c) Three
- d) Four

**Answer: c**

**Explanation:** The inland water quality monitoring network is operating under a three tier program. The three tier programs are Global Environment Monitoring System, Monitoring of India National Aquatic Resources System and Yamuna Action Plan.



90. Which is the most input of waste causing marine pollution?

- a) Pesticides
- b) Pipes directly discharge waste into the sea
- c) Death of aquatic organisms
- d) Climatic conditions

**Answer: b**

**Explanation:** The most obvious input of waste for marine pollution is through pipes directly discharging waste into the sea. Very often, municipal waste and sewage waste from residences and industries in coastal towns are directly discharged into the sea.

91. Why ship accidents cause marine pollution?

- a) Because if the ship carrying passengers to collapse it results in the death of many people
- b) Because ship is very huge in its size
- c) Dredged material which carries heavy metals cause marine pollution
- d) Ship materials stuck inside the marine organisms

**Answer: c**

**Explanation:** Ship accidents and accidental spillages at sea damaging the marine environment. Shipping channels in estuaries and at the entrances to ports often require dredging to keep them open. This dredged material contains heavy metals which contaminates the water.

92. Which of the following is the greatest volume of waste discharge to water?

- a) Spillage from oil pipelines
- b) Sewage
- c) Nuclear waste
- d) Spillage from tankers

**Answer: b**

**Explanation:** The greatest volume of waste discharged to water is sewage, which is primarily organic in nature and is degraded by bacterial activity. Using the oxygen present in the water, these wastes are broken down into stable inorganic compounds.

93. When does the rate of aerobic oxidation reduced in the sewage that is reduced to the water?

- a) When oxygen concentration falls below 1.5 mg/l
- b) When oxygen concentration falls below 2.5 mg/l
- c) When oxygen concentration falls below 3.5 mg/l
- d) When oxygen concentration falls below 4.5 mg/l

**Answer: a**

**Explanation:** When the oxygen concentration falls below 1.5 mg/l, the rate of aerobic oxidation is reduced and replaced by anaerobic bacteria that can oxidizes the organic molecules without the use of oxygen.



94. Which of the following way is used to reduce the pollution load on marine water?

- a) Manual cleaning of pollutants
- b) Damping the pollutants during winter
- c) Introducing sewage treatment plants
- d) Ban the license of industries which are near to the sea

**Answer: c**

**Explanation:** One of the best ways of reducing the pollution load on marine waters is by introducing sewage treatment plants. This will reduce the biological oxygen demand (BOD) of the final product before it is discharged to water.

95. What is the reason that oil pollution attracts the greatest attention?

- a) Because of the volume
- b) Because of the density
- c) Because of the mass
- d) Because of the visibility

**Answer: d**

**Explanation:** Oil pollution of the sea normally attracts the greatest attention because of its visibility. They visible to the greater range because the pollution spread to the longer distance within a few hours. This pollution cause damaging to the marine ecosystems.

96. What is night soil?

- a) Soil containing urea
- b) Human excreta
- c) Animal excreta
- d) Human excreta, animal excreta and urea

**Answer: d**

**Explanation:** Human excrement collected at night from buckets, cesspools, privies and sometimes used as manure is called night soil. The night soil consists of human excreta, animal excreta and urea originating at privies, water closets, urinals and stables.

97. Wastewater from different sources like bathrooms, kitchens and wash basins is called \_\_\_\_\_

- a) Sewage
- b) Garbage
- c) Sullage
- d) Discharge

**Answer: c**

**Explanation:** Dry wastes such as dry leaves, paper and grass are called garbage. Discharge is the outflow of water or wastewater. Sewage is the wastewater from various houses. Sullage is the wastewater from bathroom, kitchen, wash basins, etc.





98. Which of the following conditions is not suitable for the disposal of excreta or sewage?

- a) The waste does not pollute the ground surface
- b) It is not exposed to the atmosphere
- c) It should be accessible for children
- d) It does not give odour nuisance

**Answer: c**

**Explanation:** The place and criteria for the disposal of waste play a major role. It should be off the sight of the people so it doesn't cause displeasure for the vision and it must not be accessible for children and household pets with respect to health aspects.

99. The system to collect night soil, garbage etc. in separate vessels or deposited in pools and pits is called \_\_\_\_\_

- a) Conservancy system
- b) Waste allocation system
- c) Waste deposition system
- d) Waste pit

**Answer: a**

**Explanation:** Conservancy system is an old system in which various types of wastes such as night soil, garbage, etc. are collected separately in vessels and deposited in pools or pits and then removed periodically once in 24 hours.

100. In urban cities like Bangalore, which of the water carriage system is used?

- a) Separate system
- b) Combined system
- c) Partially combined system
- d) Partially separate system

**Answer: a**

**Explanation:** Urban cities have a large area and high population, therefore water usage is more and sewage generated will also be more. Hence, a separate system to carry sewage and stormwater is necessary. Whereas in rural areas, precipitation will be absorbed by the ground and infiltrated. Therefore only a little amount of precipitation forms storm. Hence the combined system is preferred.

101. Which of the following is an advantage of the conservancy system over water carriage system?

- a) Labour force
- b) Water consumption
- c) Compact house design
- d) Spread of epidemic

**Answer: b**

**Explanation:** In the conservancy system, compact house design is not possible, a large labour force is required and there is a spread of an epidemic. Hence, little water consumption is an advantage of the conservancy system over water carriage system.





102. The means of promoting hygiene through the prevention of human contact with the hazards of wastes especially feces is called \_\_\_\_\_

- a) Hygiene control
- b) Disease prevention
- c) Sanitation
- d) Hygiene

**Answer: c**

**Explanation:** Sanitation generally refers to hygiene by the prevention of wastes coming into human contact especially feces. The various measures taken to reduce the occurrence of diseases are called disease prevention

103. The relatively clean wastewater from baths, sinks, washing machines and other kitchen appliances is called \_\_\_\_\_

- a) Grey water
- b) Black water
- c) Yellow water
- d) Wastewater

**Answer: a**

**Explanation:** Yellow water refers to the wastewater containing only feces. Black water is the wastewater from bathrooms and toilets. Wastewater generally refers to the water that cannot be used or water produced out of various uses.

104. What is the major problem in nuclear plants?

- a) Drawing out energy
- b) Fusion of particles
- c) Disposal of nuclear waste
- d) Handling of fuel

**Answer: c**

**Explanation:** One of the major problems in the nuclear power plant is the disposal of waste products which are highly radioactive. They emit large quantities of  $\gamma$  rays and these high energy  $\gamma$  rays destroy all living matter through which pass.

105. \_\_\_\_\_ is suited for open channel monitoring applications.

- a) pH sensor
- b) Ultrasonic technology
- c) Infrared technology
- d) Monitoring meters

**Answer: b**

**Explanation:** Ultrasonic level technology has been uncontested as the standard for level and OCM applications in the water industry.

106. How many categories of process variables are present?

- a) 2

- b) 3
- c) 4
- d) 5

**Answer: b**

**Explanation:** There are three categories of process variables. Instrumentation and automatic control allow

continuous monitoring of process variables, rapid transfer of data to the operator or manager.

**107. Which of the following are a mechanical means of signal transmission?**

- a) Detector
- b) Tone
- c) Amplifier
- d) Indicator

**Answer: d**

**Explanation:** The mechanical means of signal transmission include movement of a pen, indicator, float or cable. Pneumatic means include a detector or an amplifier. Electronic means include voltage, current, pulse duration, etc.

**108. What is the hazardous pollutant released from resistors?**

- a) Arsenic
- b) Barium
- c) Cobalt
- d) Silver

**Answer: d**

**Explanation:** Capacitors, switches (contacts), batteries, resistors contains silver and is released to environment in case of improper handling.

**109. What is the hazardous pollutant released from luminous substances?**

- a) Arsenic
- b) Barium
- c) Zinc
- d) Silver

**Answer: c**

**Explanation:** Steel, brass, alloys, disposable and rechargeable batteries, and luminous substances contains zinc and is released to environment in case of improper handling.

**110. Which of the following metal affects mental development in children?**

- a) Lead
- b) Barium
- c) Zinc
- d) Silver

**Answer: a**

**Explanation:** Lead has a neurotoxin that affects the kidneys and the reproductive system. It affects mental development in children. Mechanical breaking of CRT (cathode ray tubes) and removing solder from microchips release lead as powder and fumes.

**111. Which of the following give out carcinogenic brominated dioxins and furans?**



**Explanation:** BFRs or brominated flame retardants give out carcinogenic brominated dioxins and furans. Dioxins can harm reproductive and immune systems. Burning PVC a component of plastics, also produces dioxins.

**112. Which of the following metal causes bronchial maladies?**

- a) Lead
- b) Barium
- c) Chromium
- d) Plastic

**Answer: c**

**Explanation:** Inhaling hexavalent chromium or chromium 6 can damage liver and kidneys and cause bronchial maladies including asthmatic bronchitis and lung cancer.

**113. Which of the following area has the lowest chance of producing a biomedical waste?**

- a) Hospitals
- b) Clinics
- c) Laboratories
- d) Agricultural lands

**Answer: d**

**Explanation:** Hospitals, clinics, laboratories and various research centers generate a lot of biomedical wastes from diagnosis, treatment and disease on various diseases generate wastes that are termed as biomedical waste. But agricultural lands generally produce wastes that are biodegradable in nature, so they are not called as biomedical waste.

**114. Which of the following is not a Biomedical waste?**

- a) Animal waste
- b) Microbiological waste
- c) Chemical waste
- d) Domestic waste

**Answer: d**

**Explanation:** Domestic waste doesn't contain any infectious agents and is totally degradable in nature but animal waste contains animal tissue and organs, microbiological waste contains microbiological specimen wastes, chemical waste contains disinfectant chemicals. So, all of these wastes are treated as Biomedical wastes.

**115. Which of the following is categorized as an incineration waste?**

- a) Incineration ash
- b) Animal waste
- c) Solid waste
- d) Cytotoxic drugs

**Answer: a**

**Explanation:** Incineration ash comes from any biomedical wastes that is being incinerated and ignited and burnt to dispose of the biomedical wastes. This prevents further contamination but this also creates Incineration ash, which has the potential of causing a disease and hence, it's treatment is very necessary for the public health, whereas, animal waste contains animal tissue and organs, Solid waste can be any wastes from the hospitals or labs like cotton, blood tubing, catheters etc. and cytotoxic drugs are used and old expired medicines.

**116. Which of the following should not be mixed with other wastes to avoid contamination?**

- a) Tarry residue
- b) Oily sludge
- c) Animal waste
- d) Vegetable oil

**Answer: c**

**Explanation:** Animal waste is a type of biomedical waste that contains animal tissue and organs and it is not safe for contamination with other wastes as they are infectious. Tarry residue, oily sludge, are hazardous waste of petrochemical processes which should be handled correctly and disposed of carefully without causing any damage to the environment, but it certainly is not infectious. Vegetable oil doesn't pose any threat as it's a kitchen waste and domestic wastes are biodegradable.

**117. Which of the following is not a waste treatment method for biomedical wastes?**

- a) Incineration
- b) Chemical disinfecting
- c) Autoclaving
- d) Sieving

**Answer: d**

**Explanation:** Sieving is a physical method of separation of bigger molecules and it cannot be used in a waste treatment method, whereas, incineration, chemical disinfecting, autoclaving, encapsulation are the methods used for waste treatment of biomedical wastes.

**118. Which of the following requires special treatment of bacteria?**

- a) Packaging of waste
- b) Labelling of waste
- c) Transport of waste
- d) Degradation of waste

**Answer: d**

**Explanation:** Degradation of waste especially biomedical wastes requires some special treatment of bacteria or other microorganisms, whereas, Packaging, labelling and transport of biomedical wastes should be done properly in order to avoid any hazardous contamination of the wastes with the environment and with humans that can be infectious.

**119. Which of the following can be used to produce marketable compost from dry solid wastes?**

- a) Aerobic composting
- b) Vermicomposting
- c) Anaerobic digestion
- d) Anaerobic composting

**Answer: a**

**Explanation:** Aerobic composting is used to treat dry solid wastes which can thereby produce compost

which can be readily marketed, vermicomposting is usually used to treat lignocellulosic waste, anaerobic composting and Anaerobic digestion are the same thing which is used to treat simple organic wastes, hence, Aerobic composting. Is most suitable for dry solid wastes.



**120. Which of the following can be used to treat wastes with simple organic matter with high water content?**

- a) Vermicomposting
- b) Aerobic composting
- c) Incineration
- d) Anaerobic digestion

**Answer: d**

**Explanation:** Vermicomposting is usually used to treat lignocellulosic waste which are also dry in nature, Aerobic composting is used to treat dry solid waste, Incineration is method to treat wastes by burning i.e. heat, Anaerobic digestion is used to treat wastes with simple organic matter and with high water content which thereby, degrades it and produces better marketable compost.

<b>Prepared By</b> Katkar Y.T.	<b>Verified By</b> Navale S N. Module Coordinator	<b>Re-Verified By</b> Navale S N Academic Coordinator	<b>Approved By</b> Tupe S G HoD E&Tc

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### Question Bank for Multiple Choice Questions

<b>Program: Diploma in Computer Engineering</b>	<b>Program Code:-CO</b>
<b>Scheme:-I</b>	<b>Semester:- V</b>
<b>Course:- Environmental Studies</b>	<b>Course Code:- 22447</b>

<b>05 – Social issues and Environmental education</b>	<b>Marks:-12</b>
<b>Content of Chapter:-</b> 51 Article (48-A) and (51-A (g)) of Indian Constitution regarding environment, Environmental protection and prevention act ,CPCB and MPCB norms and responsibilities,The role of NGOs 52 Concept of sustainable development, EIA and environmental morality. 53 Management Measures - Rain Water harvesting, Ground water recharge, Green Belt Development, Use of Renewable energy,water shed management,interlinking rivers. 54 Role of information technology in environment and human health.	

**1. What is called for the collection of rainwater for use?**

- a) Rain collection
- b) Rainwater harvesting
- c) Rain digging
- d) Rain water pumping

**Answer: b**

**Explanation:** Rainwater harvesting is a technique of collection and storage of rainwater into natural reservoirs or tanks. Rainwater can be collected from rivers, roofs and in many places. The stored water can be used in needy situation.

**2. What is the name of the process to clean water using filters?**

- a) Sublimation
- b) Oxidation
- c) Rainwater harvesting
- d) Purification

**Answer: d**

**Explanation:** Purification of water is the process of removing undesirable chemicals, biological contaminants and gases from water. Water filter, the device uses small scale quality improvement clean the water for domestic purposes.



**3. What is called for the method of removing dust and other particles from water using filters?**

- a) Filtration
- b) Sublimation
- c) Rainwater harvesting
- d) Evaporation

**Answer: a**

**Explanation:** Filtration is a process that removes particles from suspension in water. Removal of particles takes place by a number of mechanisms that include straining, flocculation, surface capture and more types.

**4. Which one of the following is the best way to conserve water?**

- a) Taking shower with less water
- b) Taking shower with more water
- c) Not taking shower
- d) Using other liquids instead of water for shower

**Answer: a**

**Explanation:** Using less water in shower save water and it also saves time for shower. Various methods like installation of a low-flow showerhead, turning off the tap when not using, spending less time in shower can conserve water efficiently.

**5.What is the gallon to use in new toilets according to Federal plumbing standards?**

- a) 1.6
- b) 2.5
- c) 3.9
- d) 4.3

**Answer: a**

**Explanation:** Old toilets can use 3.5, 5, or even up to 7 gallons of water with every flush. Federal plumbing standards now specify that new toilets can only use up to 1.6 gallons per flush and high efficiency toilets that use up to 1.28 gallons.

**6.How many methods of rainwater harvesting are there?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: b**

**Explanation:** There are two ways of harvesting rainwater, 1. Surface runoff harvesting: In urban area rainwater flows away as surface runoff, this runoff can be used for recharging aquifers. 2. Roof top rainwater harvesting: It is a system of catching rainwater where it falls.





**7. How can we increase the water efficient irrigation system?**

- a) By pouring unnecessary water to the land
- b) By not supplying adequate water
- c) By applying drip irrigation method
- d) By using more manures

**Answer: c**

**Explanation:** Drip irrigation is a method of controlled irrigation in which water is slowly delivered to the root system of multiple plants. Drip irrigation increases the water efficient irrigation system and hence it is very helpful in water conservation.

**8. What are the two main types of drip irrigation?**

- a) Surface and Subsurface drip irrigation
- b) Under and Subsurface drip irrigation
- c) Top and Surface drip irrigation
- d) Top and Under drip irrigation

**Answer: a**

**Explanation:** Surface drip irrigation and subsurface drip irrigation are the two main types of drip irrigation. In surface drip irrigation the water is delivered to the surface of the soil directly above the root system of the plants. In subsurface drip irrigation the water is applied directly to the root system.

**9. Why should people implement rainwater harvesting?**

- a) In order to play with the water
- b) In order to use during scarcity of water
- c) In order to pour the rain water directly to the sewage
- d) In order to time pass

**Answer: b**

**Explanation:** Rainwater harvesting helps to store the rain water and it can be used during the scarcity of water. We can use as per convince either directly or for recharging groundwater as the rain falling on the surface to flow away fast.

**10. Which one of the following is the benefit of rainwater harvesting?**

- a) Flood mitigation
- b) Provide a lot of water to play
- c) Create good aesthetic view
- d) Decrease the ground water level

**Answer: a**

**Explanation:** Rainwater harvesting helps for flood mitigation. Appropriate designed recharges in open public spaces will help to keep the roads from flooding. When water is not allowed to leave the premises there is less chance for choking up of the roads.



**11. Environmental ethics belongs to which part?**

- a) Environmental science
- b) Environmental chemistry
- c) Environmental philosophy
- d) Environmental studies

**Answer: c**

**Explanation:** Environmental ethics is the part of environmental philosophy. It considers extending the traditional boundaries of ethics from solely including humans to including environment which are of many organisms.

**12. According to anthropocentrism who are more important?**

- a) Fishes
- b) Lizards
- c) Humans
- d) Lions

**Answer: c**

**Explanation:** Anthropocentrism is the position that humans are the most important or critical element in any situation. According to anthropocentrism human race must always be its own primary concern apart from the rest.

**13. Under how many agreements fluorochemicals are regulated?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: b**

**Explanation:** Fluorochemicals are regulated under two international agreements. Those agreements are the Montreal Protocol and Kyoto Protocol. Both these agreements work towards the better climatic conditions of the planet.

**14. How can be determined carbon dioxide equivalents?**

- a) By multiplying the quantity of the gas by its global warming potential
- b) By multiplying the quantity of the gas by its pressure
- c) By multiplying the quantity of the water by its global warming potential
- d) By multiplying the quantity of the gas by its global cooling potential

**Answer: a**

**Explanation:** Based on the carbon dioxide equivalents the Kyoto Protocol set emission reduction targets. The carbon dioxide equivalent of a gas is determined by multiplying the quantity of the gas by its global warming potential.

**15. When did the Kyoto Protocol entered into force?**

- a) 1997
- b) 2000
- c) 2005
- d) 2009

**Answer: c**



**Explanation:** The Kyoto Protocol Is an international treaty that commits to reducing greenhouse gas emission. It was adopted in Kyoto, Japan, On December 11, 1997. It later on February 16, 2005 it entered into force

**16. What are the substances present in the ozone layer depleting substances controlled by the Montreal Protocol?**

- a) Either chlorine or bromine
- b) Either carbon or nitrogen
- c) Either chlorine or carbon
- d) Either carbon or bromine

**Answer: d**

**Explanation:** All the ozone layer depleting substances controlled by the Montreal Protocol contain either chlorine or bromine. Some ozone depleting substances are not yet controlled by the Montreal Protocol for example nitrous oxide.

**17. When did the Central Pollution Control Board established?**

- a) 1970
- b) 1972
- c) 1974
- d) 1976

**Answer: c**

**Explanation:** The Central Pollution Control Board of India was established in 1974 under the Water Act. It is a statutory organization which comes under the Ministry of Environment, Forest and Climate Change.

**18. Who appoints the chairman of the Central Pollution Control Board?**

- a) Central Government
- b) State Government
- c) Governor of the State
- d) President of India

**Answer: a**

**Explanation:** The Central Pollution Control Board is lead by its chairman, this chairman is appointed by the Central Government. The current acting chairman is Shri S. P. Singh Parihar. This entire board comes under Central Government.

**19. Which one of the following is the apex organization in the country in the field of pollution control?**

- a) Water Pollution Control Board
- b) State Pollution Control Board
- c) Central Pollution Control Board
- d) Air pollution Control Board

**Answer: c**

**Explanation:** The Central Pollution Control Board is the apex organization in the country in the field of pollution control. It is a technical wing of Ministry of Environment and Forest. It comes under Government of India.



**20. How many officials can be nominated to the Central Pollution Control Board by the Central Government?**

- a) Five
- b) Ten
- c) Twenty
- d) Twenty Five

**Answer: a**

**Explanation:** According to Section-3, the Central Pollution Control Board can have maximum five officials nominated by the Central Government and not more than five persons nominated by the Central Government from amongst the members of State Boards.

**21. In State Pollution Control Boards, how many constitutions of committees can constitute?**

- a) One
- b) Ten
- c) Not constitute any committees
- d) As many committees as necessary

**Answer: d**

**Explanation:** According to the constitution of committees, The State Pollution Control Board can constitute as many committees as necessary. The member of a committee shall be paid fees and allowances.

**22. Where is the head office of the Central Pollution Control Board?**

- a) Mumbai
- b) Raipur
- c) Mysore
- d) New Delhi

**Answer: d**

**Explanation:** The head office of the Central Pollution Control Board located in New Delhi. It consists of seven zonal offices and five laboratories. Here the board conducts environmental assessments and research.

**23. Who decides the term of the Member Secretary in the Central Pollution Control Board?**

- a) Chairman of the Central Pollution Control Board
- b) President of India
- c) Prime Minister of India
- d) Government of India

**Answer: d**

**Explanation:** Government of India decides the terms and services condition of the Member Secretary and also for the chairman of the Central Pollution Control Board. Rest of the members shall hold office for a term of three years.



**23. What is the full form of NAMP?**

- a) National Air Quality Monitoring Program
- b) National Air Quality Measuring Program
- c) National Air Quantity Monitoring Program
- d) National Air Quality Monitoring Protocol

**Answer: a**

**Explanation:** NAMP stand for National Air Quality Monitoring Program. The Central Pollution Control Board runs nationwide programs of ambient air quality monitoring which is known as National Air Quality Monitoring Program.

**24. When did the Karnataka State Pollution Control Board for Prevention and Control of Water Pollution constituted?**

- a) 1974
- b) 1978
- c) 1982
- d) 1985

**Answer: a**

**Explanation:** The Karnataka State Pollution Control Board for Prevention and Control of Water Pollution was constituted in 1974 by the Government of Karnataka in pursuance of the Water Prevention and Control Pollution Act, 1974.

**25. In how many tier programs the inland water quality monitoring network is operating?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: c**

**Explanation:** The inland water quality monitoring network is operating under a three tier program. The three tier programs are Global Environment Monitoring System, Monitoring of India National Aquatic Resources System and Yamuna Action Plan.

**26. When did the National Green Tribunal Act constituted?**

- a) 2000
- b) 2005
- c) 2010
- d) 2015

**Answer: c**

**Explanation:** The National Green Tribunal Act was constituted in 2010. It has been enacted with the objectives to provide for the establishment of a National Green Tribunal for the effective disposal of cases relating to environmental protection.



**27. Which is the first country to pass the amendment in the parliament to safeguard the environment?**

- a) Brazil
- b) Denmark
- c) China
- d) India

**Answer: d**

**Explanation:** In 1976, the Indian parliament passed the 42nd amendment to its constitution for safeguarding the environment. Thus India became the first country in the world to pass the amendment to safeguard the environment.

**28. How can we achieve the prevention of environmental degradation?**

- a) By relying on the government to do all the jobs
- b) By killing all animals in the forest
- c) By creating public awareness among people about the importance of environment
- d) By causing more and more pollution

**Answer: c**

**Explanation:** By making public to aware about the environmental importance we can achieve the prevention of environmental degradation. Prevention of environmental degradation must become a part of all our lives.

**29. In which of the following way we can create awareness among people about environment efficiently?**

- a) By the help of mass media shows the importance of environment
- b) By spreading through mouths
- c) By forcefully insisting people to protecting environment
- d) By making treaties with other countries

**Answer: a**

**Explanation:** Environmental management can only be possible through public awareness. Mass media such as newspaper, radio and television strongly influence public opinion. Through this mass media, we can create awareness for people about the importance of environment.

**30. Which one of the following is the best way to protect environment by individuals?**

- a) By simply talking about environment
- b) By killing organisms and cutting trees
- c) By joining NGOs and involve themselves in environmental protection works
- d) By simply sitting in a home

**Answer: c**

**Explanation:** There are several Governmental and Non-Governmental Organizations working towards environmental protection in our country. An individual can join an NGO that supports conservation and protect the environment.





**31. What is the best way to educate school kids about the environment?**

- a) Teaching theory about environment in classes
- b) Showing pictures and videos of environment in projector screen
- c) Taking kids to national parks or sanctuaries
- d) Taking kids to amusement parks

**Answer: c**

**Explanation:** The best way to educate school kids about the environment is by taking kids to national parks or sanctuaries. Kids get to know more about the environment when they directly spend some time in natural habitat and thus they come to know the importance of the environment.

**32. When we will celebrate World Forestry Day?**

- a) 21 March
- b) 22 April
- c) 05 June
- d) 11 July

**Answer: a**

**Explanation:** World Forestry Day is celebrated worldwide every year on 21st March at the international level in order to increase public awareness among communities about the contribution of forests to balance the life cycle on earth.

**33. In India when we will celebrate Wildlife Week?**

- a) Between April 1 and 8
- b) Between July 1 and 8
- c) Between August 1 and 8
- d) Between October 1 and 8

**Answer: d**

**Explanation:** Wildlife Week is celebrated every year in India between October 1 and 8. It was first started in the year 1952 with the great vision of saving the life of the Indians animals by taking some critical steps.

**34. When did the Bombay Natural History Society started?**

- a) 1883
- b) 1894
- c) 1903
- d) 1916

**Answer: a**

**Explanation:** The Bombay Natural History Society (BNHS) began as a small society of six members in 1883. Its influence on wildlife policy building, research, popular publication"s and peoples action has been a unique feature of the multifaceted society.





**35. Which is the India"s oldest conservation research based NGO?**

- a) Botanical Survey of India
- b) Bombay Natural History Society
- c) Centre for Environmental Education
- d) Madras Crocodile Bank Trust

**Answer: b**

**Explanation:** Bombay Natural History Society is the India"s oldest conservation research based NGO and one that has been at the forefront of the battle for preservation of species and ecosystems. Its major contribution has been in the field of wildlife research.

**36. Which is the first crocodile conservation breeding centre in Asia?**

- a) Madras Crocodile Bank Trust
- b) Bombay Crocodile Bank Trust
- c) Kolkata Crocodile Bank Trust
- d) Mangalore Crocodile Bank Trust

**Answer: a**

**Explanation:** Madras Crocodile Bank Trust (MCBT) is the first crocodile conservation breeding centre in Asia. It was founded in 1976 to conserve Indian crocodiles and establish program for the conservation of other species of endangered reptiles.

**37. Where we can see State Department of Environment?**

- a) State where there is no danger for environment
- b) State where there is danger for environment
- c) State where there is no adequate environment
- d) In all States of India

**Answer: d**

**Explanation:** State Department of Environment is present in every state of India. It is responsible for improving the overall environmental quality within the state. The Department actively engages in environmental assessment.

**38. Where is the head quarter of Wildlife Institute of India located?**

- a) New Delhi
- b) Mysore
- c) Dehradun
- d) Bhopal

**Answer: c**

**Explanation:** The head quarter of Wildlife Institute of India located in Dehradun. It is a major training establishment for Forest Officials and for research in Wildlife Management. The organization added an enormous amount of information on India"s biological wealth.



**39. When did the Zoological Survey of India established?**

- a) 1900
- b) 1909
- c) 1916
- d) 1920

**Answer: c**

**Explanation:** The Zoological Survey of India (ZSI) was established in 1916. Its mandate was to do a systematic survey of the fauna in India. It has done an enormous amount of work on taxonomy and ecology.

**40. Which of the following action takes place in the formation of ozone?**

- a) Action of daylight on oxygen
- b) Action of daylight on nitrogen
- c) Action of daylight on hydrogen
- d) Action of daylight on phosphorous

**Answer: a**

**Explanation:** Ozone is made by the action of daylight on oxygen. It forms a layer 20 to 50 km over the surface of the earth. This action of formation of ozone over the surface of the earth takes place naturally within the atmosphere.

**41. When did the Central Pollution Control Board established?**

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- b) 1972
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**53. Which of the following are moral principles that describe certain standards of human behavior and are regularly protected as legal rights?**

- a) National rights
- b) Human rights
- c) Women rights
- d) Men rights

**Answer: b**

**Explanation:** Human rights are rights inherent to human beings, whatever our place of residence, origin, nationality, sex, religion, language or any other status. These rights are all interrelated, interdependent and indivisible.

**54. What is the full form of NGOs?**

- a) Non-Governmental Organizations
- b) Non Governance Organizations
- c) No Governance Organizations
- d) Null Governmental Organizations

**Answer: a**

**Explanation:** NGOs stands for Non-Governmental Organization. Non-Governmental Organizations are organizations which are involved in carrying out a wide range of activities for the benefit of people and also for the environment.



**55. When does an Environmental Policy achieve positive results?**

- a) When policy addressed to urban issues
- b) When policy addressed to local issues
- c) When policy addressed to international issues
- d) When policy addressed to national issues

**Answer: b**

**Explanation:** Environmental policies will achieve positive results when they are addressed to local issues and solve the problems of local people. The policymakers should keep in mind the needs of the people while framing the policies and implementing the environment-friendly projects.

**56. In which of the following Greenpeace is fighting against?**

- a) Commercial fishing
- b) Commercial farming
- c) Commercial rattling
- d) Commercial Whaling

**Answer: d**

**Explanation:** Commercial Whaling has resulted in the decline of the world's whale population. In order to stop commercial whaling, Greenpeace is working. Greenpeace is fighting against commercial whaling. Through political work public outreach and by adopting non-violent direct action against the whalers at sea.

**57. Why Greenpeace is opposing for genetic engineering?**

- a) Because it causes genetic pollution
- b) Because it increase the health of organisms
- c) It completely saves the forest
- d) It contributes for better environment

**Answer: a**

**Explanation:** Genetic engineering enables the creation of plants, animals and micro-organisms through the manipulation of genes. The organisms, which are produced through genetic engineering when interbred with the natural organisms lead to new environments leads to genetic pollution.

**58. Why Greenpeace oppose the use of nuclear power?**

- a) Because nuclear power increase the environment rapidly
- b) Because nuclear power plant abolishes the disasters
- c) Because there is no disadvantages in nuclear power
- d) Because it releases harmful radiations

**Answer: d**

**Explanation:** Greenpeace are against the use of nuclear power as its use has never been peaceful. Radiation released into the environment through the nuclear tests has led to the contamination of soil, air, rivers, and oceans, causing cancer and other diseases in people.





**59. When did Greenpeace founded?**

- a) 1965
- b) 1967
- c) 1968
- d) 1971

**Answer: d**

**Explanation:** Greenpeace was founded in 1971 to oppose US nuclear testing in Alaska. The organization has fought to protect the endangered species, stop the dumping of hazardous waste, and strengthen national and international laws that regulate environmental affairs.

**60. Where is the WWF International located?**

- a) Poland
- b) United States
- c) Switzerland
- d) England

**Answer: c**

**Explanation:** The WWF International is located at Gland in Switzerland. It is an international non-governmental organization founded in 1961. The motto of WWF is "Building a future in which people live in harmony with nature".

**61. When did the Bombay Natural History Society (BNHS) founded?**

- a) 1857
- b) 1868
- c) 1883
- d) 1897

**Answer: c**

**Explanation:** BNHS was founded in 1883, is recognized as one of the foremost conservation research organizations in the world. It aims to collect data on the specimens on natural history throughout the Indian sub-continent.

**62. What is the full form of CYWEN?**

- a) Club of Youth Working for Environment
- b) Council of Youth Working for Environment
- c) Club of Youth Working for Employment
- d) Council of Youth Working for Employment

**Answer: a**

**Explanation:** Club of Youth Working for Environment (CYWEN) is a youth group supported by the Centre for Environment Education, Ahmadabad, India. CYWEN has members between the ages of 15 and 23 years.





**63. Which year Green Coalition founded?**

- a) 1998
- b) 1999
- c) 2000
- d) 2001

**Answer: c**

**Explanation:** Green Coalition is an independent non-governmental advocacy organization founded in the year 2000. It is dedicated to improve public health standards, protecting the environment and promoting sustainable development & ethical business.

**64. Which NGO has the mission as “Conserve the lands and waters on which all life depends”?**

- a) Greenpeace
- b) Shuddhi
- c) World Wildlife Fund
- d) The Nature Conservancy

**Answer: d**

**Explanation:** The Natural Conservancy is a charitable environmental organization, headquartered in Virginia, United State. It focuses on conserving land and species around the world and has over 119 million acres of land worldwide.

**65. How can we achieve the prevention of environmental degradation?**

- a) By relying on the government to do all the jobs
- b) By killing all animals in the forest
- c) By creating public awareness among people about the importance of environment
- d) By causing more and more pollution

**Answer: c**

**Explanation:** By making public to aware about the environmental importance we can achieve the prevention of environmental degradation. Prevention of environmental degradation must become a part of all our lives.

**66. In which of the following way we can create awareness among people about environment efficiently?**

- a) By the help of mass media shows the importance of environment
- b) By spreading through mouths
- c) By forcefully insisting people to protecting environment
- d) By making treaties with other countries

**Explanation:** Environmental management can only be possible through public awareness. Mass media such as newspaper, radio and television strongly influence public opinion. Through this mass media, we can create awareness for people about the importance of environment.

**67. Which one of the following is the best way to protect environment by individuals?**

- a) By simply talking about environment
- b) By killing organisms and cutting trees
- c) By joining NGOs and involve themselves in environmental protection works
- d) By simply sitting in a home



**Answer: c**

**Explanation:** There are several Governmental and Non-Governmental Organizations working towards environmental protection in our country. An individual can join an NGO that supports conservation and protect the environment.

**68. What is the best way to educate school kids about the environment?**

- a) Teaching theory about environment in classes
- b) Showing pictures and videos of environment in projector screen
- c) Taking kids to national parks or sanctuaries
- d) Taking kids to amusement parks

**Answer: c**

**Explanation:** The best way to educate school kids about the environment is by taking kids to national parks or sanctuaries. Kids get to know more about the environment when they directly spend some time in natural habitat and thus they come to know the importance of the environment.

**69. When we will celebrate World Forestry Day?**

- a) 21 March
- b) 22 April
- c) 05 June
- d) 11 July

**Answer: a**

**Explanation:** World Forestry Day is celebrated worldwide every year on 21st March at the international level in order to increase public awareness among communities about the contribution of forests to balance the life cycle on earth.

**70. In India when we will celebrate Wildlife Week?**

- a) Between April 1 and 8
- b) Between July 1 and 8
- c) Between August 1 and 8
- d) Between October 1 and 8

**Answer: d**

**Explanation:** Wildlife Week is celebrated every year in India between October 1 and 8. It was first started in the year 1952 with the great vision of saving the life of the Indians animals by taking some critical steps.

**71. When did the Bombay Natural History Society started?**

- a) 1883
- b) 1894
- c) 1903
- d) 1916

**Answer: a**

**Explanation:** The Bombay Natural History Society (BNHS) began as a small society of six members in 1883. Its influence on wildlife policy building, research, popular publication's and peoples action has been a unique feature of the multifaceted society.



**72. Which is the India's oldest conservation research based NGO?**

- a) Botanical Survey of India
- b) Bombay Natural History Society
- c) Centre for Environmental Education
- d) Madras Crocodile Bank Trust

**Answer: b**

**Explanation:** Bombay Natural History Society is the India's oldest conservation research based NGO and one that has been at the forefront of the battle for preservation of species and ecosystems. Its major contribution has been in the field of wildlife research.

**73. Which is the first crocodile conservation breeding centre in Asia?**

- a) Madras Crocodile Bank Trust
- b) Bombay Crocodile Bank Trust
- c) Kolkata Crocodile Bank Trust
- d) Mangalore Crocodile Bank Trust

**Answer: a**

**Explanation:** Madras Crocodile Bank Trust (MCBT) is the first crocodile conservation breeding centre in Asia. It was founded in 1976 to conserve Indian crocodiles and establish program for the conservation of other species of endangered reptiles.

**74. Where we can see State Department of Environment?**

- a) State where there is no danger for environment
- b) State where there is danger for environment
- c) State where there is no adequate environment
- d) In all States of India

**Answer: d**

**Explanation:** State Department of Environment is present in every state of India. It is responsible for improving the overall environmental quality within the state. The Department actively engages in environmental assessment.

**75. Where is the head quarter of Wildlife Institute of India located?**

- a) New Delhi
- b) Mysore
- c) Dehradun
- d) Bhopal

**Answer: c**

**Explanation:** The head quarter of Wildlife Institute of India located in Dehradun. It is a major training establishment for Forest Officials and for research in Wildlife Management. The organization added an enormous amount of information on India's biological wealth.



**76. When did the Zoological Survey of India established?**

- a) 1900
- b) 1909
- c) 1916
- d) 1920

**Answer: c**

**Explanation:** The Zoological Survey of India (ZSI) was established in 1916. Its mandate was to do a systematic survey of the fauna in India. It has done an enormous amount of work on taxonomy and ecology.

**77. What is called for the collection of rainwater for use?**

- a) Rain collection
- b) Rainwater harvesting
- c) Rain digging
- d) Rain water pumping

**Answer: b**

**Explanation:** Rainwater harvesting is a technique of collection and storage of rainwater into natural reservoirs or tanks. Rainwater can be collected from rivers, roofs and in many places. The stored water can be used in needy situation.

**78. What is the name of the process to clean water using filters?**

- a) Sublimation
- b) Oxidation
- d) Purification

**Answer: d**

**Explanation:** Purification of water is the process of removing undesirable chemicals, biological contaminants and gases from water. Water filter, the device uses small scale quality improvement clean the water for domestic purposes.

**79. What is the gallon to use in new toilets according to Federal plumbing standards?**

- a) 1.6
- b) 2.5
- c) 3.9
- d) 4.3

**Answer: a**

**Explanation:** Old toilets can use 3.5, 5, or even up to 7 gallons of water with every flush. Federal plumbing standards now specify that new toilets can only use up to 1.6 gallons per flush and high efficiency toilets that use up to 1.28 gallons.



**80. How many methods of rainwater harvesting are there?**

- a) One
- b) Two
- c) Three
- d) Four

**Answer: b**

**Explanation:** There are two ways of harvesting rainwater, 1. Surface runoff harvesting: In urban area rainwater flows away as surface runoff, this runoff can be used for recharging aquifers. 2. Roof top rainwater harvesting: It is a system of catching rainwater where it falls.

**81. How can we increase the water efficient irrigation system?**

- a) By pouring unnecessary water to the land
- b) By not supplying adequate water
- c) By applying drip irrigation method
- d) By using more manures

**Answer: c**

**Explanation:** Drip irrigation is a method of controlled irrigation in which water is slowly delivered to the root system of multiple plants. Drip irrigation increases the water efficient irrigation system and hence it is very helpful in water conservation.

**82. What are the two main types of drip irrigation?**

- a) Surface and Subsurface drip irrigation
- b) Under and Subsurface drip irrigation
- c) Top and Surface drip irrigation
- d) Top and Under drip irrigation

**Answer: a**

**Explanation:** Surface drip irrigation and subsurface drip irrigation are the two main types of drip irrigation. In surface drip irrigation the water is delivered to the surface of the soil directly above the root system of the plants. In subsurface drip irrigation the water is applied directly to the root system.

**83. Why should people implement rainwater harvesting?**

- a) In order to play with the water
- b) In order to use during scarcity of water
- c) In order to pour the rain water directly to the sewage
- d) In order to time pass

**Answer: b**

**Explanation:** Rainwater harvesting helps to store the rain water and it can be used during the scarcity of water. We can use as per convince either directly or for recharging groundwater as the rain falling on the surface to flow away fast.

<b>Prepared By</b> Katkar Y.T.	<b>Verified By</b> Navale S N. Module Coordinator	<b>Re-Verified By</b> Navale S N Academic Coordinator	<b>Approved By</b> Tupe S G HoD E&Tc

