2nd Unit test (Question Bank)

Class: All branches (Fourth Sem K scheme)

Environmental Education and Sustainability (314301)

Unit III. Ecosystem and Biodiversity

- 1. What is an ecosystem?
 - o A) A group of organisms living in the same habitat
 - o B) A community of living organisms interacting with each other and their environment
 - o C) A collection of different species in a forest
 - o D) A biome
 - Answer: B) A community of living organisms interacting with each other and their environment
- 2. Which of the following is NOT a component of an ecosystem?
 - o A) Biotic factors
 - o B) Abiotic factors
 - o C) Solar energy
 - o D) Only human-made structures
 - o **Answer:** D) Only human-made structures
- 3. Which of the following is an example of a producer in an ecosystem?
 - o A) Rabbit
 - o B) Grass
 - o C) Hawk
 - o D) Fungus
 - o **Answer:** B) Grass
- 4. The transfer of energy in an ecosystem is shown by:
 - o A) Food chain
 - o B) Nitrogen cycle
 - o C) Carbon cycle
 - o D) Hydrological cycle
 - o **Answer:** A) Food chain
- 5. Which term describes the role of an organism in its environment, including how it gets its energy and nutrients?
 - o A) Habitat
 - o B) Niche
 - o C) Community
 - o D) Population
 - o **Answer:** B) Niche
- 6. What is the main source of energy for most ecosystems on Earth?
 - o A) Soil
 - o B) Water
 - o C) The Sun
 - o D) Wind

- o **Answer:** C) The Sun
- 7. Which of the following is an example of a primary consumer?
 - o A) Grasshopper
 - o B) Owl
 - o C) Snake
 - o D) Deer
 - o **Answer:** A) Grasshopper
- 8. What is the process by which plants use sunlight to produce food?
 - o A) Respiration
 - o B) Transpiration
 - o C) Photosynthesis
 - o D) Decomposition
 - o **Answer:** C) Photosynthesis
- 9. Which of the following is a limiting factor in an ecosystem?
 - o A) Sunlight
 - o B) Temperature
 - o C) Water
 - o D) All of the above
 - o **Answer:** D) All of the above
- 10. In an ecosystem, decomposers:
 - o A) Eat primary consumers
 - o B) Break down dead organisms and recycle nutrients
 - o C) Produce energy through photosynthesis
 - o D) Are at the top of the food chain
 - o **Answer:** B) Break down dead organisms and recycle nutrients
- 11. What does biodiversity refer to?
 - o A) The variety of ecosystems in a region
 - o B) The variety of species, genetic variation, and ecosystems
 - o C) The number of individuals in a population
 - o D) The food chains within an ecosystem
 - o **Answer:** B) The variety of species, genetic variation, and ecosystems
- 12. Which of the following is a major threat to biodiversity?
 - o A) Natural disasters
 - o B) Habitat destruction
 - o C) Seasonal changes
 - o D) Wind patterns
 - o **Answer:** B) Habitat destruction
- 13. Which of the following ecosystems has the highest biodiversity?
 - o A) Deserts
 - o B) Grasslands
 - o C) Rainforests
 - o D) Tundras
 - o **Answer:** C) Rainforests
- 14. What is the term for the variety of genes within a species?
 - o A) Species diversity
 - o B) Genetic diversity

- o C) Ecosystem diversity
- o D) Functional diversity
- o **Answer:** B) Genetic diversity

15. The loss of biodiversity can lead to:

- o A) A decrease in ecosystem stability
- o B) Increased availability of resources
- o C) A more diverse food web
- o D) Reduced competition among species
- o **Answer:** A) A decrease in ecosystem stability

16. Which of the following activities is most likely to contribute to the loss of biodiversity?

- o A) Sustainable farming practices
- o B) Deforestation
- o C) Renewable energy production
- o D) Ecotourism
- o **Answer:** B) Deforestation

17. The conservation of biodiversity is important because:

- o A) It increases the availability of oxygen
- o B) It ensures the survival of specific species only
- C) It contributes to ecosystem services like pollination, water purification, and soil fertility
- o D) It reduces global warming
- **Answer:** C) It contributes to ecosystem services like pollination, water purification, and soil fertility

18. What is the main cause of the current global decline in biodiversity?

- o A) Climate change
- o B) Pollution
- o C) Overexploitation of resources
- o D) Habitat destruction due to human activities
- o **Answer:** D) Habitat destruction due to human activities

19. Which of the following is the primary national body responsible for biodiversity conservation in India?

- o A) Ministry of Environment, Forest and Climate Change (MoEFCC)
- o B) Indian Council of Agricultural Research (ICAR)
- o C) Wildlife Protection Society of India (WPSI)
- o D) Forest Survey of India (FSI)
- o **Answer:** A) Ministry of Environment, Forest and Climate Change (MoEFCC)

20. Which project is responsible for the National Biodiversity Action Plan (NBAP) in India?

- o A) Green India Mission
- o B) National Biodiversity Authority (NBA)
- o C) Global Environment Facility (GEF)
- o D) National Mission for Clean Ganga (NMCG)
- o **Answer:** B) National Biodiversity Authority (NBA)

21. The "Biodiversity Hotspots in India" initiative is aimed at conserving which type of biodiversity?

- o A) Endemic species
- o B) Aquatic biodiversity
- o C) Forest biodiversity
- o D) Terrestrial biodiversity
- o **Answer:** A) Endemic species
- 22. Which of the following is a significant biodiversity assessment initiative in India that focuses on the documentation and conservation of species?
 - o A) National Remote Sensing Centre (NRSC)
 - o B) All India Coordinated Research Project on Biodiversity
 - o C) Botanical Survey of India (BSI)
 - o D) Indian Meteorological Department (IMD)
 - o Answer: C) Botanical Survey of India (BSI)
- 23. The State of India's Birds report is an important biodiversity assessment initiative, which is published by which organization?
 - o A) BirdLife International
 - o B) Bombay Natural History Society (BNHS)
 - o C) Wildlife Institute of India (WII)
 - o D) World Wide Fund for Nature (WWF)
 - o **Answer:** B) Bombay Natural History Society (BNHS)
- 24. The "Indian Biodiversity Information System" (IBIS) is an online platform that helps in the documentation of biodiversity in India. Which organization is responsible for its maintenance?
 - o A) Indian Council of Forestry Research and Education (ICFRE)
 - o B) National Biodiversity Authority (NBA)
 - o C) Wildlife Institute of India (WII)
 - o D) Botanical Survey of India (BSI)
 - o **Answer:** B) National Biodiversity Authority (NBA)
- 25. What is the objective of the "India State of Forest Report" (ISFR)?
 - o A) To monitor the conservation of marine biodiversity
 - o B) To assess the forest area and biodiversity status in India
 - o C) To promote forest-based industries
 - o D) To develop forest conservation policies
 - o **Answer:** B) To assess the forest area and biodiversity status in India
- 26. Which national initiative was launched to conserve and sustainably use biodiversity, particularly in the context of ecosystems?
 - o A) Swachh Bharat Mission
 - o B) Green India Mission
 - o C) National River Conservation Plan
 - o D) National Mission for Clean Ganga
 - o **Answer:** B) Green India Mission
- 27. Which international agreement has India been a part of that involves biodiversity conservation through country-level assessments?
 - o A) Kyoto Protocol
 - o B) Convention on Biological Diversity (CBD)
 - o C) Paris Climate Agreement
 - o D) United Nations Framework Convention on Climate Change (UNFCCC)

- o **Answer:** B) Convention on Biological Diversity (CBD)
- 28. The "Wildlife Protection Act" of 1972 was a significant initiative for biodiversity conservation in India. Which of the following is its major objective?
 - o A) To regulate the use of water resources
 - o B) To protect endangered species and their habitats
 - o C) To monitor air quality levels
 - o D) To establish forest reserves
 - o **Answer:** B) To protect endangered species and their habitats
- 29. What does "SWOT" stand for in a SWOT analysis?
 - o A) Strengths, Weaknesses, Opportunities, Threats
 - o B) Strengths, Water, Opportunities, Time
 - o C) Safety, Work, Order, Techniques
 - o D) Systematic, Weak, Organized, Treatment
 - o **Answer:** A) Strengths, Weaknesses, Opportunities, Threats
- 30. Which of the following is a strength in the biodiversity hotspots of India?
 - o A) High levels of endemism and rich biodiversity
 - o B) Lack of ecological preservation policies
 - o C) Over-exploitation of natural resources
 - o D) High levels of urbanization
 - o **Answer:** A) High levels of endemism and rich biodiversity
- 31. Which of the following is a key weakness in the biodiversity hotspots in India?
 - o A) Strict wildlife protection laws
 - o B) Limited public awareness about biodiversity conservation
 - o C) High conservation funding
 - o D) Abundant natural resources
 - o **Answer:** B) Limited public awareness about biodiversity conservation
- 32. An opportunity for biodiversity hotspots in India includes:
 - o A) Increased tourism and eco-tourism opportunities
 - o B) Over-exploitation of species
 - o C) Habitat destruction due to urbanization
 - o D) Encroachment of forests for agriculture
 - o **Answer:** A) Increased tourism and eco-tourism opportunities
- 33. What is a major threat to biodiversity hotspots in India?
 - o A) Habitat destruction due to deforestation and urbanization
 - o B) Increased biodiversity education
 - o C) Development of protected areas
 - o D) High investment in sustainable agriculture
 - o **Answer:** A) Habitat destruction due to deforestation and urbanization
- 34. The Western Ghats biodiversity hotspot is known for:
 - o A) High levels of industrial development
 - o B) Large-scale agricultural production
 - o C) Rich biodiversity and many endemic species
 - o D) Lack of species endemism
 - o **Answer:** C) Rich biodiversity and many endemic species
- 35. Which of the following is a potential opportunity for conservation in India's biodiversity hotspots?

- o A) Establishing more national parks and protected areas
- o B) Increasing logging activities in protected forests
- o C) Promoting monoculture farming in forested regions
- o D) Reducing government involvement in conservation efforts
- o **Answer:** A) Establishing more national parks and protected areas

36. Which of the following is a weakness of biodiversity hotspots like the Eastern Himalayas?

- o A) High rate of illegal poaching and wildlife trafficking
- o B) Successful implementation of conservation projects
- o C) Diverse range of tourism options
- o D) Stable local populations of endangered species
- o **Answer:** A) High rate of illegal poaching and wildlife trafficking

37. Which of the following is a strength of the biodiversity hotspots in India's Northeast region?

- o A) High levels of biodiversity and endemic species
- o B) Deforestation and habitat loss
- o C) Over-exploitation of water resources
- o D) Low level of government involvement in conservation
- o **Answer:** A) High levels of biodiversity and endemic species

38. A major threat to biodiversity in India's hotspots, such as the Sundarbans, is:

- o A) The spread of invasive species
- o B) Increased protection of wildlife corridors
- o C) Reduced water scarcity
- o D) Over-exploitation of forest resources for sustainable harvesting
- o **Answer:** A) The spread of invasive species

39. What is the primary objective of biodiversity conservation?

- o A) To protect endangered species only
- o B) To maintain ecological balance and ensure the survival of species
- o C) To increase human population
- o D) To promote industrial growth
- o **Answer:** B) To maintain ecological balance and ensure the survival of species

40. Which of the following laws in India is specifically designed to protect wildlife and biodiversity?

- o A) Forest Rights Act, 2006
- o B) The Wildlife Protection Act, 1972
- o C) The National Green Tribunal Act, 2010
- o D) The Indian Forest Act, 1927
- o **Answer:** B) The Wildlife Protection Act, 1972

41. The National Biodiversity Action Plan (NBAP) of India was launched to:

- o A) Increase agricultural production
- o B) Conserve and sustainably use biodiversity
- o C) Promote industrial development
- o D) Reduce pollution
- o **Answer:** B) Conserve and sustainably use biodiversity

42. Which of the following is NOT a major objective of the Convention on Biological Diversity (CBD)?

- o A) The fair and equitable sharing of benefits arising from genetic resources
- o B) To maintain and protect ecosystems and habitats
- o C) To promote the use of biotechnology for all purposes
- o D) To conserve biodiversity at the global level
- o **Answer:** C) To promote the use of biotechnology for all purposes

43. Which Indian law specifically addresses the issue of forest and wildlife conservation?

- o A) The Forest Conservation Act, 1980
- o B) The Environment Protection Act, 1986
- o C) The Wildlife Protection Act, 1972
- o D) All of the above
- o **Answer:** D) All of the above

44. The 'National Wildlife Action Plan' (NWAP) aims to:

- o A) Increase industrialization
- o B) Provide more land for farming
- o C) Conserve wildlife and their habitats
- o D) Promote tourism and entertainment in protected areas
- o **Answer:** C) Conserve wildlife and their habitats

45. Which of the following is a primary focus of the Biological Diversity Act, 2002, in India?

- o A) To encourage the exploitation of natural resources
- B) To conserve the biological diversity of India and regulate access to genetic resources
- o C) To provide subsidies for industries
- o D) To promote deforestation for industrial purposes
- o **Answer:** B) To conserve the biological diversity of India and regulate access to genetic resources

46. The primary purpose of establishing 'Biosphere Reserves' in India is to:

- o A) Increase tourism in the region
- o B) Conserve biodiversity and promote sustainable use of natural resources
- o C) Promote urbanization
- o D) Focus on agricultural development
- Answer: B) Conserve biodiversity and promote sustainable use of natural resources

47. Which of the following is NOT a method used in biodiversity conservation?

- o A) Establishing protected areas like national parks and wildlife sanctuaries
- o B) Promoting sustainable land-use practices
- o C) Encouraging the introduction of non-native species into ecosystems
- o D) Conducting wildlife surveys and monitoring
- o **Answer:** C) Encouraging the introduction of non-native species into ecosystems

48. Which of the following is an example of an international law for biodiversity conservation?

- o A) Kyoto Protocol
- o B) Convention on Biological Diversity (CBD)

- o C) Paris Agreement
- o D) UN Framework Convention on Climate Change
- o **Answer:** B) Convention on Biological Diversity (CBD)

49. What is the correct definition of a food chain?

- o A) A network of interconnected food webs
- o B) A linear sequence of organisms where each is eaten by the next in the chain
- o C) The process of energy transfer through photosynthesis
- o D) A cycle of nutrient recycling in an ecosystem
- o **Answer:** B) A linear sequence of organisms where each is eaten by the next in the chain

50. In a food web, which organism is most likely to be at the top of the pyramid of energy?

- o A) Producers
- o B) Primary consumers
- o C) Secondary consumers
- o D) Tertiary consumers
- o **Answer:** D) Tertiary consumers

51. Which of the following best describes a food web?

- o A) A complex network of interconnected food chains
- o B) A simple one-way path of energy transfer
- o C) Only the path of energy transfer from producers to primary consumers
- o D) The movement of energy from one species to another in the same trophic level
- o **Answer:** A) A complex network of interconnected food chains

52. In an ecosystem, what role do producers (such as plants) play in the food chain?

- o A) They consume other organisms for energy
- o B) They break down dead organisms into nutrients
- o C) They provide energy by converting sunlight into food through photosynthesis
- o D) They are at the top of the food chain
- **Answer:** C) They provide energy by converting sunlight into food through photosynthesis

53. Which of the following is an example of a primary consumer in a terrestrial food chain?

- o A) A rabbit eating grass
- o B) A lion eating a zebra
- o C) A hawk eating a rabbit
- o D) A snake eating a frog
- o **Answer:** A) A rabbit eating grass

54. Which of the following is an example of a terrestrial ecosystem?

- o A) Ocean
- o B) Pond
- o C) Forest
- o D) Coral reef
- o **Answer:** C) Forest

55. Which of the following is a characteristic of a freshwater ecosystem?

- o A) High salinity
- o B) Dominated by marine species

- o C) Includes rivers, lakes, and ponds
- o D) Has a high concentration of saltwater
- o **Answer:** C) Includes rivers, lakes, and ponds

56. What type of ecosystem is characterized by large amounts of saltwater and includes oceans and seas?

- o A) Terrestrial ecosystem
- o B) Freshwater ecosystem
- o C) Marine ecosystem
- o D) Wetland ecosystem
- o **Answer:** C) Marine ecosystem

57. Which of the following ecosystems is found in areas with high rainfall and warm temperatures year-round?

- o A) Desert
- o B) Grassland
- o C) Tropical rainforest
- o D) Tundra
- o **Answer:** C) Tropical rainforest

58. Which of the following is a feature of a desert ecosystem?

- o A) High biodiversity and dense vegetation
- o B) Low precipitation and extreme temperature fluctuations
- o C) High humidity and constant rainfall
- o D) Dominated by evergreen trees
- o **Answer:** B) Low precipitation and extreme temperature fluctuations

59. A tundra ecosystem is primarily characterized by:

- o A) Warm temperatures and abundant rainfall
- o B) Cold temperatures and permafrost soil
- o C) High levels of photosynthesis year-round
- o D) Rich, fertile soil and dense forests
- o **Answer:** B) Cold temperatures and permafrost soil

60. Which of the following is a key feature of a wetland ecosystem?

- o A) Permanently dry soil
- o B) Saturated soil with high levels of water
- o C) Extremely high salinity
- o D) Presence of deserts and dry grasslands
- o **Answer:** B) Saturated soil with high levels of water

Unit IV. Environmental Pollution

1. What is the definition of pollution?

- A) The introduction of harmful substances into the environment
- B) The increase of biodiversity in a region
- C) The decrease in temperature due to human activities
- D) The process of recycling waste materials

Answer: A) The introduction of harmful substances into the environment

2. Which of the following is NOT a type of pollution?

- A) Air pollution
- B) Water pollution
- C) Noise pollution
- D) Photosynthesis

Answer: D) Photosynthesis

3. Which of the following is a man-made (artificial) source of pollution?

- A) Volcanic eruption
- B) Industrial emissions
- C) Forest fires
- D) Ocean currents

Answer: B) Industrial emissions

4. Which type of pollution results from natural events like forest fires and volcanic eruptions?

- A) Artificial pollution
- B) Noise pollution
- C) Natural pollution
- D) Water pollution

Answer: C) Natural pollution

5. What is the primary cause of artificial (man-made) pollution?

- A) Solar radiation
- B) Human activities such as industrial processes and transportation
- C) Natural disasters
- D) Animal behavior

Answer: B) Human activities such as industrial processes and transportation

6. Which of the following is an example of natural pollution?

- A) Plastic waste in the ocean
- B) Smoke from a wildfire
- C) Sewage contamination
- D) Exhaust fumes from cars

Answer: B) Smoke from a wildfire

7. Which of the following is a major type of artificial pollution caused by human activities?

- A) Noise pollution
- B) Oxygen depletion
- C) Carbon dioxide removal
- D) Increased photosynthesis

Answer: A) Noise pollution

8. Which of the following is a consequence of air pollution?

- A) Increase in crop yield
- B) Damage to the ozone layer
- C) Decrease in ocean water temperature
- D) Increase in global biodiversity

Answer: B) Damage to the ozone layer

9. Natural sources of water pollution include:

- A) Oil spills
- B) Heavy metals from factories

- C) Algal blooms caused by excessive nutrients in water
- D) Oil and chemical waste from ships

Answer: C) Algal blooms caused by excessive nutrients in water

10. Which of the following is an artificial (man-made) source of soil pollution?

- A) Earthquake-induced landslides
- B) Agricultural runoff containing pesticides and fertilizers
- C) Natural soil erosion
- D) Soil nutrients from decaying plant matter

Answer: B) Agricultural runoff containing pesticides and fertilizers

11. What is the primary cause of soil pollution?

- A) Overgrazing
- B) Deforestation
- C) Human activities like industrial waste disposal and use of pesticides
- D) Natural disasters

Answer: C) Human activities like industrial waste disposal and use of pesticides

12. Which of the following is a preventive measure to reduce soil pollution?

- A) Overuse of chemical fertilizers
- B) Crop rotation
- C) Continuous monoculture
- D) Deforestation

Answer: B) Crop rotation

13. Which of these human activities leads to land degradation?

- A) Proper irrigation practices
- B) Overgrazing by livestock
- C) Sustainable farming
- D) Afforestation

Answer: B) Overgrazing by livestock

14. What is soil conservation?

- A) Preventing the erosion of soil and maintaining its fertility
- B) Storing soil in large containers
- C) Using soil for industrial purposes
- D) None of the above

Answer: A) Preventing the erosion of soil and maintaining its fertility

15. Which of the following is NOT a direct effect of soil pollution?

- A) Contamination of crops with harmful chemicals
- B) Decrease in agricultural productivity
- C) Decreased levels of greenhouse gases
- D) Destruction of soil organisms

Answer: C) Decreased levels of greenhouse gases

16. What is one consequence of soil erosion?

- A) Improved crop growth
- B) Loss of fertile topsoil
- C) Increased water retention in soil
- D) Increased biodiversity in soil

Answer: B) Loss of fertile topsoil

17. Why is soil preservation important?

- A) To reduce the amount of water in the soil
- B) To increase soil productivity and prevent desertification
- C) To increase the population of pests
- D) To reduce the need for irrigation

Answer: B) To increase soil productivity and prevent desertification

18. Which of the following practices is most effective in preventing soil erosion?

- A) Deforestation
- B) Terracing
- C) Continuous use of chemical fertilizers
- D) Burning of crop residues

Answer: B) Terracing

19. Which of these is a major cause of soil pollution?

- A) Use of organic fertilizers
- B) Industrial waste dumping
- C) Rainwater harvesting
- D) Crop rotation

Answer: B) Industrial waste dumping

20. What is the role of organic farming in soil preservation?

- A) It increases the use of chemical pesticides.
- B) It helps maintain soil structure and fertility by using natural fertilizers.
- C) It encourages deforestation.
- D) It decreases biodiversity in the soil.

Answer: B) It helps maintain soil structure and fertility by using natural fertilizers.

21. Which of the following is an example of soil conservation?

- A) Planting trees on barren land
- B) Using monoculture crops
- C) Deforestation
- D) Overgrazing by animals

Answer: A) Planting trees on barren land

22. How does the excessive use of chemical fertilizers affect the soil?

- A) Increases soil organic matter
- B) Reduces soil fertility over time
- C) Improves the structure of the soil
- D) Enhances the growth of soil organisms

Answer: B) Reduces soil fertility over time

23. What is the main effect of soil pollution on the environment?

- A) Increase in biodiversity
- B) Decrease in the fertility of soil
- C) Increase in soil organic matter
- D) Stabilization of water cycle

Answer: B) Decrease in the fertility of soil

24. Which of the following is a benefit of afforestation in soil conservation?

- A) It increases soil erosion
- B) It helps restore soil fertility and prevent erosion
- C) It reduces the fertility of the soil

• D) It causes the desertification of soil

Answer: B) It helps restore soil fertility and prevent erosion **25.** What is the effect of soil pollution on human health?

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- A) Improved nutrition from crops
- B) Contamination of food and water sources with toxic substances
- C) Increased availability of water resources
- D) Increased crop yields and healthier food

Answer: B) Contamination of food and water sources with toxic substances

26. What is the main source of water pollution?

- a) Industrial waste
- b) Household waste
- c) Agricultural runoff
- d) All of the above

Answer: d) All of the above

27. Which of the following is considered a major point source of water pollution?

- a) Runoff from agricultural fields
- b) Discharge from factories
- c) Pollution from urban areas
- d) Oil spills

Answer: b) Discharge from factories

28. Which of the following diseases can be caused by polluted water?

- a) Cholera
- b) Malaria
- c) Tuberculosis
- d) Influenza

Answer: a) Cholera

29. Which chemical used in agriculture contributes to water pollution?

- a) Fertilizers
- b) Pesticides
- c) Herbicides
- d) All of the above

Answer: d) All of the above

30. What is the effect of excessive nutrients (like nitrogen and phosphorus) in water bodies?

- a) Increase in water clarity
- b) Eutrophication
- c) Water purification
- d) Reduced aquatic life

Answer: b) Eutrophication

31. What is the major consequence of water pollution for aquatic life?

- a) Increased oxygen levels
- b) Decreased biodiversity
- c) Better growth rates
- d) None of the above

Answer: b) Decreased biodiversity

32. Which of the following is a common preventive measure for water pollution?

- a) Use of biodegradable products
- b) Regular cleaning of water bodies
- c) Proper disposal of waste
- d) All of the above

Answer: d) All of the above

33. Which human activity is responsible for the most water pollution in urban areas?

- a) Transportation
- b) Industrial activities
- c) Domestic waste disposal
- d) Agricultural runoff

Answer: c) Domestic waste disposal

34. What is the main purpose of the BIS (Bureau of Indian Standards) water quality standards?

- a) To regulate water usage
- b) To ensure water safety and quality for drinking
- c) To promote water conservation
- d) To set water prices

Answer: b) To ensure water safety and quality for drinking

35. Which of the following is a common pollutant found in industrial wastewater?

- a) Lead
- b) Oil
- c) Sulfur compounds
- d) All of the above

Answer: d) All of the above

36. Which of the following is NOT a water conservation method?

- a) Rainwater harvesting
- b) Wastewater recycling
- c) Use of chemical fertilizers
- d) Drip irrigation

Answer: c) Use of chemical fertilizers

37. What is the permissible limit of total dissolved solids (TDS) in potable water as per BIS standards?

- a) 500 mg/L
- b) 1000 mg/L
- c) 1500 mg/L
- d) 2000 mg/L

Answer: a) 500 mg/L

38. Which of the following is a biological water pollutant?

- a) Phosphates
- b) E. coli bacteria
- c) Heavy metals
- d) Oil spills

Answer: b) E. coli bacteria

39. What does the term "eutrophication" refer to?

- a) Depletion of oxygen in water
- b) Enrichment of water with nutrients leading to excessive plant growth

- c) Increase in fish population
- d) None of the above

Answer: b) Enrichment of water with nutrients leading to excessive plant growth

40. Which of the following is a method to reduce water consumption at home?

- a) Using a water-efficient washing machine
- b) Running the tap while brushing teeth
- c) Taking long showers
- d) Using high-flow faucets

Answer: a) Using a water-efficient washing machine

41. Which of the following contaminants is commonly associated with groundwater pollution?

- a) Nitrate
- b) Mercury
- c) Cyanide
- d) Radioactive elements

Answer: a) Nitrate

42. Which of the following is true about the impact of water pollution on human health?

- a) It can cause skin diseases
- b) It may lead to respiratory problems
- c) It can result in gastrointestinal diseases
- d) All of the above

Answer: d) All of the above

43. What is the role of sewage treatment plants (STPs) in water pollution control?

- a) To purify water
- b) To dispose of sewage
- c) To increase water hardness
- d) To add chemicals to water

Answer: a) To purify water

44. How does water pollution affect the food chain in aquatic ecosystems?

- a) It increases the number of fish
- b) It disrupts the natural balance, harming predators and prey
- c) It promotes the growth of healthy aquatic plants
- d) None of the above

Answer: b) It disrupts the natural balance, harming predators and prey

45. Which of the following is NOT an effect of water pollution?

- a) Loss of aquatic life
- b) Decreased agricultural productivity
- c) Improvement in water quality
- d) Increased disease transmission

Answer: c) Improvement in water quality

46. What is the primary cause of air pollution?

- a) Industrial emissions
- b) Agricultural activities
- c) Vehicular emissions
- d) All of the above

Answer: d) All of the above

47. Which of the following is a major pollutant emitted by vehicles?

- a) Carbon monoxide (CO)
- b) Nitrogen oxides (NOx)
- c) Particulate matter (PM)
- d) All of the above

Answer: d) All of the above

48. Which of the following is NOT a source of air pollution?

- a) Forest fires
- b) Fossil fuel combustion
- c) Wind erosion of soil
- d) Plant respiration

Answer: d) Plant respiration

49. Which of the following is the primary health effect of prolonged exposure to air pollution?

- a) Hearing loss
- b) Respiratory diseases
- c) Skin cancer
- d) Heartburn

Answer: b) Respiratory diseases

50. What is the main effect of sulfur dioxide (SO2) on human health?

- a) It causes asthma
- b) It leads to lung cancer
- c) It causes eye irritation and respiratory problems
- d) It leads to skin diseases

Answer: c) It causes eye irritation and respiratory problems

51. Which of the following is a direct environmental effect of air pollution?

- a) Acid rain
- b) Global warming
- c) Ozone depletion
- d) All of the above

Answer: d) All of the above

52. Which of the following is a major contributor to indoor air pollution?

- a) Tobacco smoke
- b) Cooking fumes
- c) Household cleaning products
- d) All of the above

Answer: d) All of the above

53. What does the term "Particulate Matter" (PM) refer to?

- a) Dust particles in the air
- b) Ozone molecules
- c) Water vapor
- d) Gaseous pollutants

Answer: a) Dust particles in the air

54. Which of the following is considered a natural source of air pollution?

- a) Volcanic eruptions
- b) Industrial activities

- c) Automobile exhaust
- d) Agricultural practices

Answer: a) Volcanic eruptions

55. Which gas is primarily responsible for the formation of smog?

- a) Carbon dioxide
- b) Ozone
- c) Nitrogen oxides
- d) Methane

Answer: b) Ozone

56. What is the primary prevention method to reduce air pollution in urban areas?

- a) Increase vehicle emissions
- b) Use of cleaner fuels and energy sources
- c) Reduce use of public transport
- d) Increase industrial activity

Answer: b) Use of cleaner fuels and energy sources

57. What is a significant way to reduce air pollution from industrial sources?

- a) Use of catalytic converters
- b) Installation of scrubbers and filters
- c) Limiting industrial growth
- d) None of the above

Answer: b) Installation of scrubbers and filters

58. Which of the following is NOT a common preventive measure against air pollution?

- a) Afforestation
- b) Carpooling
- c) Regular emission checks for vehicles
- d) Increased use of plastic bags

Answer: d) Increased use of plastic bags

59. Which of the following pollutants is monitored under CPCB's air quality standards for residential areas?

- a) Carbon monoxide (CO)
- b) Ozone (O3)
- c) Particulate Matter (PM10 and PM2.5)
- d) All of the above

Answer: d) All of the above

60. What is the permissible limit of PM10 (Particulate Matter) in residential areas as per CPCB standards?

- a) $60 \mu g/m^3$
- b) $100 \, \mu g/m^3$
- c) $150 \mu g/m^3$
- d) $200 \mu g/m^3$

Answer: b) $100 \mu g/m^3$

61. According to CPCB norms, what is the acceptable concentration of nitrogen dioxide (NO2) in residential areas?

- a) $50 \mu g/m^3$
- b) $100 \, \mu g/m^3$
- c) $150 \mu g/m^3$

d) $200 \mu g/m^3$

Answer: b) $100 \mu g/m^3$

62. What is the role of the Central Pollution Control Board (CPCB) in managing air quality?

- a) Setting standards for air quality
- b) Monitoring pollution levels
- c) Creating public awareness
- d) All of the above

Answer: d) All of the above

63. Which of the following is an effect of exposure to high levels of carbon monoxide (CO)?

- a) Headaches and dizziness
- b) Skin rashes
- c) Nausea
- d) Both a and c

Answer: d) Both a and c

64. Which of the following activities is most effective in reducing air pollution in cities?

- a) Switching to renewable energy sources
- b) Increasing the use of fossil fuels
- c) Reducing green spaces
- d) Promoting use of plastic materials

Answer: a) Switching to renewable energy sources

65. What is the permissible limit for ozone (O3) in residential areas according to CPCB norms?

- a) $100 \, \mu g/m^3$
- b) $180 \mu g/m^3$
- c) $200 \, \mu g/m^3$
- d) $300 \mu g/m^3$

Answer: b) 180 μg/m³

66. Which of the following is a primary source of noise pollution in urban areas?

- a) Traffic
- b) Industrial machines
- c) Construction activities
- d) All of the above

Answer: d) All of the above

67. What is the primary cause of noise pollution in residential areas?

- a) Airplanes
- b) Motor vehicles
- c) Construction work
- d) None of the above

Answer: b) Motor vehicles

68. What is the main source of noise pollution in industrial areas?

- a) Heavy machinery
- b) Birds
- c) Water bodies
- d) Wind

Answer: a) Heavy machinery

69. Which of the following can cause noise pollution at night?

- a) Traffic sounds
- b) Street lighting
- c) Wind blowing
- d) Air conditioning

Answer: a) Traffic sounds

70. What is the unit used to measure noise levels?

- a) Watt
- b) Decibel (dB)
- c) Volt
- d) Joule

Answer: b) Decibel (dB)

71. At what decibel level does noise begin to cause hearing damage with prolonged exposure?

- a) 60 dB
- b) 85 dB
- c) 100 dB
- d) 120 dB

Answer: b) 85 dB

72. Which of the following is an effect of prolonged exposure to noise pollution on human health?

- a) Insomnia
- b) High blood pressure
- c) Hearing impairment
- d) All of the above

Answer: d) All of the above

73. Which of the following is a common source of noise pollution in urban transportation?

- a) Cars and buses
- b) Airplanes
- c) Trains
- d) All of the above

Answer: d) All of the above

74. Which of the following is a preventive measure to reduce noise pollution in urban areas?

- a) Using noise barriers along highways
- b) Promoting electric vehicles
- c) Regulating construction work hours
- d) All of the above

Answer: d) All of the above

75. What is the permissible noise level during the day (6:00 am to 10:00 pm) in residential areas as per CPCB norms?

- a) 50 dB
- b) 55 dB
- c) 60 dB
- d) 70 dB

Answer: b) 55 dB

76. What is the permissible noise level at night (10:00 pm to 6:00 am) in residential areas according to CPCB norms?

- a) 40 dB
- b) 45 dB
- c) 50 dB
- d) 55 dB

Answer: a) 40 dB

77. Which of the following is a major contributor to noise pollution in industrial areas?

- a) Compressor and generator operations
- b) Traffic
- c) Household appliances
- d) None of the above

Answer: a) Compressor and generator operations

78. Which of the following noise levels is generally considered to be harmful to human health?

- a) 50 dB
- b) 65 dB
- c) 85 dB
- d) 90 dB

Answer: c) 85 dB

79. What is the impact of noise pollution on wildlife?

- a) Increased reproductive rates
- b) Disruption of communication and mating
- c) Improved habitat conditions
- d) None of the above

Answer: b) Disruption of communication and mating

80. Which of the following can be an effect of noise pollution on mental health?

- a) Increased stress levels
- b) Reduced concentration
- c) Increased risk of mental disorders
- d) All of the above

Answer: d) All of the above

81. Which of the following actions can be taken to reduce noise pollution in residential areas?

- a) Installing soundproof windows
- b) Limiting loud public events
- c) Using quieter machinery
- d) All of the above

Answer: d) All of the above

82. Which of the following is the noise level for "silent zone" areas (such as hospitals, educational institutions)?

- a) 30 dB
- b) 35 dB
- c) 40 dB
- d) 50 dB

Answer: b) 35 dB

83. What is the maximum permissible noise level in commercial areas during the day according to CPCB norms?

- a) 60 dB
- b) 65 dB
- c) 70 dB
- d) 75 dB

Answer: c) 70 dB

84. Which of the following is an example of a natural source of noise pollution?

- a) Thunderstorms
- b) Traffic
- c) Industrial machines
- d) Airplanes

Answer: a) Thunderstorms

85. What is the role of the Central Pollution Control Board (CPCB) regarding noise pollution?

- a) Setting standards for noise levels in various zones
- b) Monitoring noise pollution levels
- c) Implementing noise pollution control measures
- d) All of the above

Answer: d) All of the above

86. What is the primary function of the Central Pollution Control Board (CPCB)?

- a) Monitoring industrial growth
- b) Setting norms for pollution control and ensuring compliance
- c) Managing water supply
- d) Providing funding for pollution control projects

Answer: b) Setting norms for pollution control and ensuring compliance

87. Which act empowers the establishment of Pollution Control Boards in India?

- a) Indian Penal Code
- b) Water (Prevention and Control of Pollution) Act, 1974
- c) Air (Prevention and Control of Pollution) Act, 1981
- d) Environmental Protection Act, 1986

Answer: b) Water (Prevention and Control of Pollution) Act, 1974

88. Which of the following is the responsibility of State Pollution Control Boards (SPCBs)?

- a) Formulation of environmental policies
- b) Ensuring pollution control in specific states
- c) Monitoring and enforcing national standards
- d) None of the above

Answer: b) Ensuring pollution control in specific states

89. Which of the following is the role of CPCB in water pollution control?

- a) Issuing water pollution licenses
- b) Establishing water quality standards
- c) Conducting water pollution awareness campaigns
- d) Managing local sewage systems

Answer: b) Establishing water quality standards

90. What is the responsibility of State Pollution Control Boards in relation to industries?

- a) To levy taxes on industries
- b) To monitor industrial emissions and effluents
- c) To issue business permits to industries
- d) To manage water distribution for industries

Answer: b) To monitor industrial emissions and effluents

91. Which of the following is a key function of the CPCB under the Air (Prevention and Control of Pollution) Act, 1981?

- a) Monitoring ambient air quality
- b) Setting air quality standards
- c) Providing environmental education
- d) Both a and b

Answer: d) Both a and b

92. Which of the following is a role of Pollution Control Boards (PCBs)?

- a) Providing financial grants to industries
- b) Licensing industries that meet environmental standards
- c) Managing sewage treatment plants
- d) None of the above

Answer: b) Licensing industries that meet environmental standards

93. Which of the following norms does the CPCB monitor?

- a) Noise pollution standards
- b) Water quality standards
- c) Air quality standards
- d) All of the above

Answer: d) All of the above

94. What is the responsibility of State Pollution Control Boards in regard to air pollution?

- a) Enforcing ambient air quality standards
- b) Issuing licenses for air emissions
- c) Monitoring air quality in cities and industries
- d) All of the above

Answer: d) All of the above

95. What is the primary goal of pollution control boards at the central and state levels?

- a) To reduce industrial production
- b) To monitor and control pollution levels in the environment
- c) To impose heavy fines on industries
- d) To promote industrial growth without any regulation

Answer: b) To monitor and control pollution levels in the environment

96. Under which law are the Pollution Control Boards authorized to issue directions to industries regarding pollution control?

- a) Indian Penal Code
- b) Air (Prevention and Control of Pollution) Act
- c) National Green Tribunal Act
- d) Environmental Protection Act

Answer: b) Air (Prevention and Control of Pollution) Act

97. What does the term "consent to establish" refer to in the context of Pollution Control Boards?

- a) Approval to build new residential complexes
- b) Permission for industries to set up operations in pollution-sensitive zones
- c) Consent from local communities for pollution control
- d) Permission for industry to operate after meeting pollution control standards

Answer: d) Permission for industry to operate after meeting pollution control standards

98. What is the function of Pollution Control Boards in the context of environmental education?

- a) Setting up educational institutions
- b) Organizing awareness campaigns on pollution
- c) Conducting exams for environmental certifications
- d) Managing education curricula in schools

Answer: b) Organizing awareness campaigns on pollution

99. Which of the following is a duty of the State Pollution Control Board (SPCB) under the Environment Protection Act, 1986?

- a) Establishing national pollution standards
- b) Conducting environmental impact assessments
- c) Ensuring environmental protection within the state
- d) Monitoring the global environmental impact

Answer: c) Ensuring environmental protection within the state

100. Which of the following is an initiative by the CPCB to tackle pollution?

- a) Swachh Bharat Abhiyan
- b) National Air Quality Monitoring Programme (NAMP)
- c) Clean Ganga Mission
- d) Pradhan Mantri Awas Yojana

Answer: b) National Air Quality Monitoring Programme (NAMP)

Unit V. Enviornmental legislation and sustainable practices

- 1. What is the focus of Article 48-A of the Indian Constitution?
- a) Protection of forests
- b) Promotion of sustainable agriculture
- c) Protection and improvement of the environment
- d) Control of air and water pollution

Answer: c) Protection and improvement of the environment

2. Which article of the Indian Constitution envisions the protection and improvement of the environment as a fundamental duty?

- a) Article 48-A
- b) Article 51-A (g)
- c) Article 21
- d) Article 14

Answer: b) Article 51-A (g)

3. When was Article 48-A included in the Indian Constitution?

- a) 1947
- b) 1976
- c) 1986
- d) 1991

Answer: b) 1976

4. Which amendment to the Indian Constitution introduced Article 48-A?

- a) 42nd Amendment
- b) 44th Amendment
- c) 52nd Amendment
- d) 73rd Amendment

Answer: a) 42nd Amendment

5. Which of the following duties is included under Article 51-A (g) of the Indian Constitution?

- a) To safeguard public health
- b) To promote the welfare of children
- c) To protect and improve the environment
- d) To ensure economic equality

Answer: c) To protect and improve the environment

6. Which of the following is a directive principle of state policy under Article 48-A?

- a) The state shall endeavor to provide adequate food for all
- b) The state shall protect and improve the environment
- c) The state shall provide free education for all
- d) The state shall ensure health care for all citizens

Answer: b) The state shall protect and improve the environment

7. What is the significance of Article 51-A (g) in terms of environmental protection?

- a) It makes environmental protection a fundamental duty of every citizen
- b) It allows the government to pass environmental laws
- c) It focuses on the protection of wildlife only
- d) It regulates industrial emissions

Answer: a) It makes environmental protection a fundamental duty of every citizen

8. Which of the following is a primary environmental protection law enacted under the Indian Constitution?

- a) Wildlife Protection Act, 1972
- b) Air (Prevention and Control of Pollution) Act, 1981
- c) Water (Prevention and Control of Pollution) Act, 1974
- d) All of the above

Answer: d) All of the above

9. What is the objective of the Environment Protection Act, 1986?

- a) To promote renewable energy sources
- b) To control and reduce pollution
- c) To regulate forests and wildlife
- d) To provide compensation for environmental damage

Answer: b) To control and reduce pollution

10. Which of the following is the main purpose of Article 48-A of the Indian Constitution?

- a) To promote education for all
- b) To regulate industrial development
- c) To protect and preserve the environment
- d) To control food security

Answer: c) To protect and preserve the environment

11. What does Article 51-A (g) of the Constitution emphasize on?

- a) Protection of religious rights
- b) Promotion of scientific research
- c) Protection and improvement of the environment
- d) Ensuring equal rights for all citizens

Answer: c) Protection and improvement of the environment

12. Which of the following is a legal outcome of the directive principles outlined in Article 48-A?

- a) Creation of the Central Pollution Control Board (CPCB)
- b) Declaration of protected areas for wildlife
- c) Setting air quality standards
- d) All of the above

Answer: d) All of the above

13. Which environmental law is directly related to the concept of "environmental impact assessment"?

- a) Environment Protection Act, 1986
- b) Forest Conservation Act, 1980
- c) Air (Prevention and Control of Pollution) Act, 1981
- d) Wildlife Protection Act, 1972

Answer: a) Environment Protection Act, 1986

14. Under which constitutional provision are citizens encouraged to protect and improve the environment?

- a) Article 48-A
- b) Article 51-A (g)
- c) Article 21
- d) Article 14

Answer: b) Article 51-A (g)

15. Which of the following environmental Acts is designed to regulate pollution in water bodies?

- a) Water (Prevention and Control of Pollution) Act, 1974
- b) Forest (Conservation) Act, 1980
- c) Air (Prevention and Control of Pollution) Act, 1981
- d) Environmental Protection Act, 1986

Answer: a) Water (Prevention and Control of Pollution) Act, 1974

16. Which ministry in India is responsible for implementing environmental protection laws under the Constitution?

- a) Ministry of Environment, Forest and Climate Change
- b) Ministry of Finance
- c) Ministry of Agriculture
- d) Ministry of Health and Family Welfare

Answer: a) Ministry of Environment, Forest and Climate Change

17. What is the aim of the Forest Conservation Act, 1980?

- a) To regulate air pollution
- b) To conserve forests and prevent deforestation
- c) To regulate wildlife protection
- d) To conserve water resources

Answer: b) To conserve forests and prevent deforestation

18. Which constitutional article promotes the "right to a healthy environment" through directives for environmental protection?

- a) Article 48-A
- b) Article 51-A (g)
- c) Article 21
- d) Article 19

Answer: c) Article 21

19. What is the role of the National Green Tribunal (NGT) in India?

- a) To enforce environmental regulations
- b) To provide a forum for environmental disputes
- c) To manage national parks and wildlife sanctuaries
- d) To regulate industrial waste disposal

Answer: b) To provide a forum for environmental disputes

20. Which of the following acts is aimed at protecting wildlife in India?

- a) Wildlife Protection Act, 1972
- b) Water (Prevention and Control of Pollution) Act, 1974
- c) Air (Prevention and Control of Pollution) Act, 1981
- d) Environmental Protection Act, 1986

Answer: a) Wildlife Protection Act, 1972

21. What is the main objective of public awareness programs on the environment?

- a) To encourage industrial growth
- b) To promote sustainable development and environmental protection
- c) To control economic growth
- d) To reduce the use of natural resources

Answer: b) To promote sustainable development and environmental protection

22. Which of the following is a major reason for raising public awareness about the environment?

- a) To increase the production of consumer goods
- b) To reduce environmental degradation caused by human activities
- c) To promote global trade
- d) To limit technological innovations

Answer: b) To reduce environmental degradation caused by human activities

23. Which of the following actions is an example of individual participation in environmental protection?

- a) Organizing a tree plantation drive
- b) Supporting industrial pollution
- c) Ignoring waste management
- d) Promoting deforestation

Answer: a) Organizing a tree plantation drive

24. Why is it important for individuals to participate in environmental protection?

- a) To boost personal income
- b) To help in reducing environmental pollution
- c) To gain political power
- d) To improve industrial productivity

Answer: b) To help in reducing environmental pollution

25. Which of the following is the most effective way to raise public awareness about environmental issues?

- a) Television and radio advertisements
- b) Social media campaigns
- c) Educational programs and workshops
- d) All of the above

Answer: d) All of the above

26. What role do Non-Governmental Organizations (NGOs) play in environmental awareness?

- a) They ignore environmental issues
- b) They support government policies only
- c) They organize awareness campaigns, advocacy, and environmental protection activities
- d) They are responsible for enforcing laws

Answer: c) They organize awareness campaigns, advocacy, and environmental protection activities

27. Which of the following is an example of an environmental NGO initiative?

- a) Promoting industrial growth without regulations
- b) Organizing beach clean-up drives
- c) Encouraging deforestation
- d) Reducing waste management programs

Answer: b) Organizing beach clean-up drives

28. What is the need for public awareness regarding climate change?

- a) To ignore its effects
- b) To encourage government action and global cooperation
- c) To promote economic loss
- d) To increase carbon emissions

Answer: b) To encourage government action and global cooperation

29. Which of the following is a major cause of environmental problems that public awareness can help address?

- a) Overconsumption of resources
- b) Effective waste management
- c) Promoting renewable energy
- d) Promoting green spaces

Answer: a) Overconsumption of resources

30. What is the role of social media in public environmental awareness?

- a) Spreading misinformation
- b) Raising awareness and mobilizing people for environmental causes
- c) Limiting participation in environmental activities
- d) Discouraging environmental conservation

Answer: b) Raising awareness and mobilizing people for environmental causes

31. How can individuals contribute to environmental protection?

- a) By reducing their carbon footprint
- b) By participating in awareness campaigns
- c) By adopting sustainable practices like recycling and conservation
- d) All of the above

Answer: d) All of the above

32. What is the primary function of NGOs in environmental issues?

- a) To enforce government regulations
- b) To provide financial aid to industries
- c) To create awareness and advocate for environmental protection
- d) To manage industrial waste

Answer: c) To create awareness and advocate for environmental protection

33. Which of the following is an example of public participation in waste management?

- a) Reducing, reusing, and recycling waste
- b) Ignoring waste disposal regulations
- c) Increasing the use of single-use plastics
- d) Encouraging landfill dumping

Answer: a) Reducing, reusing, and recycling waste

34. Which is a key factor in the success of environmental awareness programs?

- a) Ignoring local communities
- b) The participation of government, individuals, and NGOs
- c) Focusing only on the government
- d) Limiting awareness campaigns to urban areas

Answer: b) The participation of government, individuals, and NGOs

35. What is the role of environmental education in raising public awareness?

- a) Educating individuals on how to exploit resources
- b) Teaching the importance of conservation and sustainable practices
- c) Promoting industrial growth without regulations
- d) Ignoring environmental degradation

Answer: b) Teaching the importance of conservation and sustainable practices

36. Which of the following is a major environmental issue that requires public awareness?

- a) Overfishing
- b) Air pollution
- c) Deforestation
- d) All of the above

Answer: d) All of the above

37. What impact can public awareness campaigns have on policy-making?

- a) They can decrease government involvement in environmental issues
- b) They can lead to stronger environmental policies and regulations
- c) They can reduce people's involvement in environmental issues
- d) They can discourage corporate responsibility

Answer: b) They can lead to stronger environmental policies and regulations

38. How can individuals reduce their environmental impact?

- a) By using non-renewable resources excessively
- b) By adopting eco-friendly practices such as using public transportation
- c) By increasing industrial emissions
- d) By ignoring waste segregation

Answer: b) By adopting eco-friendly practices such as using public transportation

39. Why is it essential for NGOs to collaborate with government agencies on environmental issues?

- a) To create awareness and ensure enforcement of laws
- b) To ignore environmental concerns

- c) To restrict individual participation in environmental protection
- d) To promote unsustainable practices

Answer: a) To create awareness and ensure enforcement of laws

40. What is the purpose of 'Earth Day,' which is widely promoted by NGOs and global organizations?

- a) To celebrate industrial achievements
- b) To raise awareness about environmental protection and sustainable practices
- c) To encourage deforestation
- d) To promote the use of plastic

Answer: b) To raise awareness about environmental protection and sustainable practices

41. What is the main purpose of solar desalination?

- a) To produce electricity
- b) To convert seawater into drinkable water
- c) To generate solar energy
- d) To purify air

Answer: b) To convert seawater into drinkable water

42. Which renewable energy source is primarily used in solar desalination?

- a) Wind
- b) Biomass
- c) Solar energy
- d) Geothermal energy

Answer: c) Solar energy

43. What is the advantage of solar desalination over conventional desalination methods?

- a) It uses non-renewable energy
- b) It is costlier than conventional methods
- c) It is environmentally friendly and uses renewable energy
- d) It requires large-scale infrastructure

Answer: c) It is environmentally friendly and uses renewable energy

44. Which of the following is a method of solar desalination?

- a) Reverse Osmosis
- b) Multi-Stage Flash Distillation
- c) Solar Still
- d) All of the above

Answer: d) All of the above

45. Solar desalination is most suitable for which of the following areas?

- a) Urban areas with freshwater resources
- b) Coastal regions with abundant sunlight
- c) Inland areas with freshwater lakes
- d) Forest regions with abundant rainfall

Answer: b) Coastal regions with abundant sunlight

46. What is the primary goal of green architecture?

- a) To reduce the cost of construction
- b) To minimize environmental impact and promote sustainability
- c) To increase the height of buildings
- d) To increase the energy consumption of buildings

Answer: b) To minimize environmental impact and promote sustainability

47. Which of the following is a key feature of green architecture?

- a) High energy consumption
- b) Use of non-renewable materials
- c) Energy efficiency and sustainable building materials
- d) Larger carbon footprint

Answer: c) Energy efficiency and sustainable building materials

48. Which of the following materials is commonly used in green architecture?

- a) Concrete and steel
- b) Sustainable materials like bamboo and recycled metal
- c) Plastic
- d) Asphalt

Answer: b) Sustainable materials like bamboo and recycled metal

49. What is the main advantage of using natural light in green architecture?

- a) It reduces the need for artificial lighting, saving energy
- b) It increases energy consumption
- c) It provides aesthetic value but no energy savings
- d) It reduces the size of the building

Answer: a) It reduces the need for artificial lighting, saving energy

50. What is the purpose of rainwater harvesting in green buildings?

- a) To reduce water wastage and use water efficiently
- b) To increase electricity consumption
- c) To store water for industrial use
- d) To decorate the building

Answer: a) To reduce water wastage and use water efficiently

51. What is vertical farming? a) Farming conducted in open fields

- b) Growing crops in vertically stacked layers or structures
- c) Farming done on rooftops only
- d) Traditional farming in rural areas

Answer: b) Growing crops in vertically stacked layers or structures

52. What is the main advantage of vertical farming?

- a) It requires more land space
- b) It reduces food production costs
- c) It allows farming in urban areas with limited space
- d) It increases soil erosion

Answer: c) It allows farming in urban areas with limited space

53. What is hydroponics?

- a) A method of farming using soil
- b) A method of farming using mineral-rich water instead of soil
- c) A type of plant-based packaging
- d) A method of growing crops without sunlight

Answer: b) A method of farming using mineral-rich water instead of soil

54. Which of the following is a benefit of hydroponics farming?

- a) It requires large amounts of land and water
- b) It helps conserve water by using a closed-loop system
- c) It does not use any technology

d) It is only suitable for outdoor farming

Answer: b) It helps conserve water by using a closed-loop system

- 55. What is one of the challenges of vertical farming?
- a) High land requirements
- b) High initial setup costs
- c) Lack of technology
- d) Limited water usage

Answer: b) High initial setup costs

- 56. What is the primary advantage of electric vehicles (EVs) over traditional gasoline vehicles? a) Lower initial cost
- b) Higher fuel consumption
- c) Zero emissions and reduced environmental impact
- d) Greater speed

Answer: c) Zero emissions and reduced environmental impact

- 57. Which of the following is a major component of an electric vehicle?
- a) Gasoline engine
- b) Lead-acid batteries
- c) Electric motor and battery
- d) Diesel engine

Answer: c) Electric motor and battery

- 58. What is the main environmental benefit of electric vehicles (EVs)?
- a) They are faster than conventional vehicles
- b) They do not require fuel
- c) They emit fewer greenhouse gases and air pollutants
- d) They require more resources for production

Answer: c) They emit fewer greenhouse gases and air pollutants

- 59. What is a significant challenge associated with electric vehicles (EVs)?
- a) Lack of battery storage technology
- b) High fuel costs
- c) Limited charging infrastructure and range anxiety
- d) Excessive emissions from charging stations

Answer: c) Limited charging infrastructure and range anxiety

- 60. Which of the following is a commonly used battery type in electric vehicles (EVs)?
- a) Lead-acid battery
- b) Nickel-cadmium battery
- c) Lithium-ion battery
- d) Zinc-carbon battery

Answer: c) Lithium-ion battery

- 61. What is plant-based packaging made from? a) Petroleum-based plastics
- b) Biodegradable materials derived from plants, such as cornstarch and sugarcane
- c) Non-renewable resources
- d) Synthetic chemicals

Answer: b) Biodegradable materials derived from plants, such as cornstarch and sugarcane

- 62. Which of the following is a major environmental benefit of plant-based packaging?
- a) It takes longer to degrade in landfills
- b) It is reusable

- c) It is biodegradable and reduces plastic waste
- d) It requires significant chemical processing

Answer: c) It is biodegradable and reduces plastic waste

- 63. Which material is commonly used for plant-based packaging?
- a) Polyethylene
- b) PLA (Polylactic Acid)
- c) PVC
- d) Teflon

Answer: b) PLA (Polylactic Acid)

64. What is the main reason for the adoption of plant-based packaging?

- a) It is cheaper than plastic packaging
- b) It helps in reducing the environmental impact of plastic waste
- c) It lasts longer than plastic
- d) It requires more energy to produce

Answer: b) It helps in reducing the environmental impact of plastic waste

65. Which of the following is a limitation of plant-based packaging?

- a) It cannot be recycled
- b) It requires significant energy to produce
- c) It is not biodegradable
- d) It is more expensive than plastic alternatives

Answer: d) It is more expensive than plastic alternatives

66. How can Information Technology (IT) help in environmental protection?

- a) By increasing industrial waste
- b) By enabling better data collection, analysis, and decision-making
- c) By promoting deforestation
- d) By increasing energy consumption

Answer: b) By enabling better data collection, analysis, and decision-making

67. What role does GIS (Geographic Information Systems) play in environmental protection?

- a) Monitoring and mapping environmental changes
- b) Ignoring environmental concerns
- c) Reducing forest coverage
- d) Promoting industrial pollution

Answer: a) Monitoring and mapping environmental changes

68. Which of the following technologies helps in monitoring air and water pollution?

- a) Cloud computing
- b) Remote sensing
- c) Blockchain
- d) Social media

Answer: b) Remote sensing

69. Which technology helps in predicting natural disasters like floods and earthquakes?

- a) Artificial intelligence
- b) Remote sensing and satellite imagery
- c) Blockchain technology
- d) Internet of Things (IoT)

Answer: b) Remote sensing and satellite imagery

70. How does the use of Information Technology help in waste management?

- a) It increases the volume of waste
- b) It helps in tracking, recycling, and managing waste more effectively
- c) It makes waste disposal more hazardous
- d) It prevents waste recycling

Answer: b) It helps in tracking, recycling, and managing waste more effectively

71. Which of the following is an example of IT in sustainable agriculture?

- a) Use of drones for crop monitoring
- b) Encouraging deforestation
- c) Reducing water usage in farming
- d) Increasing the use of pesticides

Answer: a) Use of drones for crop monitoring

72. How can cloud computing contribute to environmental protection?

- a) By reducing energy consumption in data storage and processing
- b) By increasing the carbon footprint
- c) By promoting paper-based record keeping
- d) By increasing pollution levels

Answer: a) By reducing energy consumption in data storage and processing

73. What is the role of Big Data in environmental protection?

- a) Collecting vast amounts of environmental data for analysis and decision-making
- b) Ignoring environmental concerns
- c) Creating more pollution
- d) Reducing biodiversity

Answer: a) Collecting vast amounts of environmental data for analysis and decision-making

74. How does IT assist in renewable energy management?

- a) By improving the efficiency of renewable energy systems through smart grids and monitoring tools
- b) By increasing fossil fuel consumption
- c) By reducing the availability of renewable energy
- d) By discouraging the use of renewable energy

Answer: a) By improving the efficiency of renewable energy systems through smart grids and monitoring tools

75. Which of the following technologies aids in reducing carbon footprints in industries?

- a) Internet of Things (IoT) for smart energy management
- b) Increased use of fossil fuels
- c) Deforestation monitoring
- d) Carbon credit systems

Answer: a) Internet of Things (IoT) for smart energy management

76. How does IT contribute to improving human health?

- a) By enabling telemedicine and remote healthcare services
- b) By increasing the cost of healthcare
- c) By promoting unhealthy lifestyle choices
- d) By decreasing access to medical services

Answer: a) By enabling telemedicine and remote healthcare services

77. What is telemedicine?

- a) A type of medical insurance
- b) The use of information technology to provide healthcare remotely
- c) A method to increase pollution
- d) A healthcare system that operates only in rural areas

Answer: b) The use of information technology to provide healthcare remotely

78. Which IT tool helps in real-time monitoring of patients' health conditions?

- a) Cloud computing
- b) Health tracking devices and wearables
- c) Social media platforms
- d) Smart cities

Answer: b) Health tracking devices and wearables

79. Which technology is used to store and access patients' medical records digitally?

- a) Electronic Health Records (EHR)
- b) Blockchain
- c) Remote sensing
- d) Virtual reality

Answer: a) Electronic Health Records (EHR)

80. What is the purpose of health information systems in healthcare?

- a) To collect, store, and analyze health data for better decision-making
- b) To reduce access to healthcare services
- c) To increase administrative costs
- d) To prevent research in medical fields

Answer: a) To collect, store, and analyze health data for better decision-making

81. How can Artificial Intelligence (AI) benefit human health?

- a) By diagnosing diseases and recommending treatments
- b) By ignoring patient data
- c) By reducing the use of medical technology
- d) By preventing medical advancements

Answer: a) By diagnosing diseases and recommending treatments

82. What is the role of mobile health (mHealth) apps in healthcare?

- a) Tracking and managing personal health data
- b) Promoting unhealthy habits
- c) Limiting access to healthcare professionals
- d) Preventing physical activity

Answer: a) Tracking and managing personal health data

83. How does IT help in disease prevention and health promotion?

- a) By spreading misinformation about diseases
- b) By enabling access to health education and preventive care tools
- c) By increasing the spread of diseases
- d) By reducing healthcare coverage

Answer: b) By enabling access to health education and preventive care tools

84. Which of the following IT tools helps doctors make informed decisions during surgery?

- a) Virtual Reality (VR) and Augmented Reality (AR)
- b) Social media
- c) Telecommunication networks

d) Printed medical records

Answer: a) Virtual Reality (VR) and Augmented Reality (AR)

85. What is the role of machine learning in healthcare?

- a) It helps predict disease outbreaks and patient conditions
- b) It reduces the availability of medical treatments
- c) It makes healthcare more expensive
- d) It restricts access to essential healthcare

Answer: a) It helps predict disease outbreaks and patient conditions

86. How can IT contribute to better air quality monitoring? a) By ignoring pollution data

- b) By enabling real-time monitoring of air quality using sensors and networks
- c) By reducing the availability of pollution sensors
- d) By increasing industrial emissions

Answer: b) By enabling real-time monitoring of air quality using sensors and networks

87. What role does IT play in waste management?

- a) It enables tracking of waste generation, collection, and recycling processes
- b) It promotes waste disposal without recycling
- c) It reduces waste management costs by eliminating technology
- d) It increases the amount of waste produced

Answer: a) It enables tracking of waste generation, collection, and recycling processes

88. Which technology helps in tracking the spread of infectious diseases?

- a) Blockchain
- b) Data analytics and health information systems
- c) Virtual reality
- d) Solar energy

Answer: b) Data analytics and health information systems

89. How does IT help in managing healthcare resources effectively?

- a) By providing data-driven insights for resource allocation
- b) By reducing the number of healthcare providers
- c) By limiting access to healthcare systems
- d) By ignoring resource needs in the healthcare sector

Answer: a) By providing data-driven insights for resource allocation

90. What is the benefit of using IT in environmental health studies?

- a) It helps in data collection, analysis, and decision-making to address environmental health risks
- b) It increases the environmental impact of healthcare practices
- c) It reduces access to environmental health data
- d) It ignores environmental health factors

Answer: a) It helps in data collection, analysis, and decision-making to address environmental health risks