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## Internal Assessment Test 1 – November 2024

| Sub  | ENVIRONMENTAL STUDIES & E-WASTE MANAGEMENT |           |         |            |    | Sub Code | BCS508 | Branch | CSE, AIML, AIDS & ISE |
|------|--|-----------|---------|------------|----|----------|--------|--------|-----------------------|
| Date | 08.11.2024                                 | Duration: | 90 mins | Max Marks: | 50 | Sem      | V      |        |                       |

**Answer all the questions (Each carry 1 mark)**

- 1 Which is/are the abiotic components of an ecosystem?  
(a) Soil (b) Protein (c) Carbon (d) None of the above
- 2 What are the two basic categories of an ecosystem?  
(a) Aquatic and terrestrial (b) Aquatic and forest (c) Ponds and lakes (d) Rivers and forests
- 3 What is the characteristic of each type of ecosystem?  
(a) Interaction between living things (b) Interaction between biotic and abiotic factors (c) Interaction between abiotic factors (d) Fights among individuals
- 4 Which of the following is an abiotic component of a pond?  
(a) Bacteria (b) Fungi (c) Water (d) Fishes
- 5 The phytoplankton, zooplankton, and fungi are components of which ecosystem?  
(a) Pond (b) Land (c) Desert (d) Terrestrial
- 6 Who consumes the autotrophic components?  
(a) Trees (b) Plant (c) Phytoplankton (d) Heterotrophs
- 7 What will happen if we remove the decomposers from an ecosystem?  
(a) Energy flow stops (b) Consumers die (c) Mineralization will not occur (d) Plants won't receive solar energy
- 8 Which of the following is the primary source of energy in a forest ecosystem?  
(a) Oxygen (b) Water (c) Sunlight (d) Nutrients in the soil
- 9 Which type of trees is typically found in a temperate forest ecosystem?  
(a) Cacti (b) Pine trees (c) Mangrove trees (d) Palm trees
- 10 Which of the following statements is true about a forest ecosystem?  
(a) All animals are producers (b) Forests do not contribute to oxygen production (c) Forests help in the carbon cycle (d) The forest ecosystem is not affected by human activities
- 11 Which desert is the largest hot desert in the world?  
(a) Kalahari (b) Atacama (c) Sahara (d) Gobi
- 12 Wetlands are considered important ecosystems because they:  
(a) Absorb and store rainwater (b) Have low biodiversity (c) Are dry most of the year (d) Have no role in the food chain
- 13 Which of the following abiotic factors is most important in determining the type of wetland?  
(a) Soil type (b) Temperature (c) Water depth (d) All of the above
- 14 A riverine ecosystem refers to the ecosystems associated with:  
(a) Deserts (b) Lakes (c) Rivers and streams (d) Oceans
- 15 Which of the following is the largest ecosystem on Earth?  
(a) Forest (b) Desert (c) Ocean (d) Wetlands
- 16 Which SDG is dedicated to affordable and clean energy?  
(a) SDG 4 (b) SDG 7 (c) SDG 11 (d) SDG 13
- 17 What is the focus of SDG 10?  
(a) Reducing inequalities within and among countries (b) Promoting responsible consumption and production (c) Conserving marine life (d) Increasing economic growth
- 18 Which SDG promotes responsible consumption and production patterns?  
(a) SDG 8 (b) SDG 12 (c) SDG 13 (d) SDG 15
- 19 What does SDG 17 focus on to strengthen the means of implementing and revitalizing partnerships for the goals?  
(a) Promoting renewable energy (b) Developing global partnerships (c) Improving gender equality (d) Enhancing healthcare access
- 20 Which SDG includes the target to "achieve gender equality and empower all women and girls"?  
(a) SDG 3 (b) SDG 5 (c) SDG 8 (d) SDG 12
- 21 What percentage of the Earth's water is fresh water?  
(a) 3% (b) 10% (c) 20% (d) 50%
- 22 Which of these is not a major cause of water scarcity?  
(a) Overpopulation (b) Industrial pollution (c) Deforestation (d) Agricultural irrigation
- 23 Which of the following is an example of a renewable water resource?  
(a) Deep groundwater (b) Glacial melt (c) Fossil aquifers (d) Surface runoff
- 24 What is the main cause of groundwater depletion?  
(a) Excessive use in agriculture (b) Industrial pollution (c) Low rainfall (d) Melting of glaciers
- 25 Which of the following parameters is commonly used to measure the acidity of water?  
(a) Dissolved Oxygen (DO) (b) pH level (c) Turbidity (d) Biological Oxygen Demand (BOD)
- 26 Which heavy metal is known to be highly toxic and a common pollutant in water bodies near mining areas?  
(a) Sodium (b) Lead (c) Calcium (d) Magnesium

- 27 Which of the following is commonly used to disinfect water and make it safe for drinking?  
(a) Chlorine (b) Mercury (c) Sulfur (d) Nitrogen
- 28 Eutrophication in water bodies is caused mainly by excessive amounts of:  
(a) Salt (b) Oxygen (c) Nutrients (like nitrogen and phosphorus) (d) Metals
- 29 Which of the following diseases is caused by drinking water contaminated with *Vibrio cholerae*?  
(a) Typhoid (b) Cholera (c) Malaria (d) Dengue
- 30 Giardiasis is a waterborne disease caused by a:  
(a) Virus (b) Bacterium (c) Protozoan (d) Fungus
- 31 Hepatitis A is primarily transmitted through:  
(a) Direct skin contact (b) Inhalation of aerosols (c) Consumption of contaminated food or water (d) Animal bites
- 32 Dengue fever is primarily spread by which type of mosquito?  
(a) Anopheles (b) Aedes (c) Culex (d) Blackfly
- 33 Schistosomiasis, also known as bilharzia, is a water-induced disease caused by:  
(a) Bacteria (b) Protozoa (c) Viruses (d) Parasitic worms (flukes)
- 34 Excessive fluoride in drinking water mainly causes which health condition?  
(a) Dental fluorosis (b) Malaria (c) Tuberculosis (d) Typhoid
- 35 Which of the following fluoride concentrations in drinking water is generally considered safe by the World Health Organization (WHO)?  
(a) 0.5 mg/L (b) 1.5 mg/L (c) 3.5 mg/L (d) 5.0 mg/L
- 36 Which of the following is considered a conventional source of energy?  
(a) Solar power (b) Wind energy (c) Natural gas (d) Tidal energy
- 37 Which of the following processes is commonly used to produce hydrogen from natural gas?  
(a) Electrolysis (b) Photosynthesis (c) Steam methane reforming (d) Fermentation
- 38 Which component in a wind turbine is responsible for converting the rotational energy of the blades into electrical energy?  
(a) Blades (b) Gearbox (c) Generator (d) Nacelle
- 39 Which of the following non-conventional energy sources is derived from organic matter such as agricultural waste and animal manure?  
(a) Geothermal energy (b) Biomass energy (c) Hydropower (d) Wind energy
- 40 Solar panels are typically made of which material to absorb sunlight efficiently?  
(a) Copper (b) Silicon (c) Aluminum (d) Zinc
- 41 Which of the following is a major source of water pollution?  
(a) Burning fossil fuels (b) Industrial waste discharge (c) Solar power generation (d) Wind energy farms
- 42 What is the effect of oil spills on marine ecosystems?  
(a) Increase in oxygen levels in water (b) Enhanced photosynthesis in algae (c) Decreased sunlight penetration and harm to marine life (d) Increased fish populations.

- 43 Which type of water pollution results in the rapid spread of diseases like cholera and dysentery?  
(a) Thermal pollution (b) Pathogenic microbial pollution (c) Chemical pollution (d) Nutrient pollution
- 44 What is one of the most effective preventive measures to reduce water pollution from agricultural runoff?  
(a) Increased use of fertilizers (b) Implementation of buffer zones with vegetation (c) Deforestation of riparian areas (d) Overgrazing of livestock
- 45 Which type of pollution occurs when heat discharged into water bodies raises the temperature, harming aquatic life?  
(a) Chemical pollution (b) Radioactive pollution (c) Thermal pollution (d) Noise pollution
- 46 What is the most effective way to prevent waterborne diseases in communities?  
(a) Boiling water before drinking (b) Treating wastewater before discharge (c) Regular testing of water quality (d) All of the above
- 47 Which indicator organism is commonly used to assess the microbiological quality of drinking water?  
(a) *E. coli* (b) *Salmonella* (c) *Vibrio cholerae* (d) *Giardia*
- 48 Which of the following populations is most vulnerable to waterborne diseases?  
(a) Urban residents (b) Children under five years old (c) Adults aged 30-50 (d) Seniors over 65
- 49 Which of the following diseases can be caused by drinking contaminated water?  
(a) Diabetes (b) Cholera (c) Asthma (d) Heart disease
- 50 What is a common consequence of water pollution on aquatic ecosystems?  
(a) Increased biodiversity (b) Death of aquatic life due to hypoxia (c) Improved water quality (d) Enhanced photosynthesis

*I. P. Rakshak*

Course instructor

CCI

HOD

### EVS Solution for IAT-1

|    |      |    |   |
|----|------|----|---|
| 1  | A, C | 26 | B |
| 2  | A    | 27 | A |
| 3  | B    | 28 | C |
| 4  | C    | 29 | B |
| 5  | A    | 30 | C |
| 6  | D    | 31 | C |
| 7  | C    | 32 | B |
| 8  | C    | 33 | D |
| 9  | B    | 34 | A |
| 10 | C    | 35 | B |
| 11 | C    | 36 | C |
| 12 | A    | 37 | C |
| 13 | D    | 38 | C |
| 14 | C    | 39 | B |
| 15 | C    | 40 | B |
| 16 | B    | 41 | B |
| 17 | A    | 42 | C |
| 18 | B    | 43 | B |
| 19 | B    | 44 | B |
| 20 | B    | 45 | C |
| 21 | A    | 46 | D |
| 22 | D    | 47 | A |
| 23 | D    | 48 | B |
| 24 | A    | 49 | B |
| 25 | B    | 50 | B |