

**BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT**

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

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Course Code 

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Fifth Semester B.E. Degree Examinations, April/May 2024

**ENVIRONMENTAL STUDIES**

Duration: 2 hr.

Max. Marks: 100

*Instructions to the Candidates:*

- All questions are compulsory.
- Each question carries 1 mark.
- Use only black ball point pen.
- Darkening more than one circles for the same question makes the answer invalid.
- Damaging/overwriting, using whiteners on the OMR are strictly prohibited.

**Q. No****Question**

- The term Environment has been derived from the French word which means to encircle or surround  
A. Environ                      B. Oikos                      C. Geo                      D. Aqua
- The term ecosystem was first proposed by  
A. Jacob Van Verkul      B. A.G. Tansley      C. Costana                      D. Marie Gibbs
- The two major components of ecosystem are  
A. Adiabatic & isotropic      B. Ecological & climatological      C. Cyclic & biologic      D. Abiotic & biotic
- Abiotic components include  
A. Soil                      B. Temperatures      C. Water                      D. All the above
- Organisms which feed directly or indirectly on producers are called  
A. Prey                      B. Consumers                      C. Decomposers                      D. Detritu
- The primary producers in a forest ecosystem are  
A. Plants                      B. Herbivores                      C. Carnivores                      D. Bacteria and other micro-organisms
- In a food chain human are  
A. Primary consumers                      B. Secondary consumers                      C. Primary and secondary consumers                      D. Producers
- Which of the following is NOT a type of wetland ecosystem?  
A. Marsh                      B. Desert                      C. Swamp                      D. Bog
- Which of the following is NOT a service provided by wetland ecosystems?  
A. Flood control                      B. Carbon sequestration                      C. Soil erosion                      D. Desertification prevention
- What is the primary source of nutrients in a lake ecosystem?  
A. Rainwater                      B. Airborne pollutants                      C. Groundwater seepage                      D. Organic matter from surrounding land & aquatic plants
- Who coined the term Biodiversity  
A. Jacob Van Verkul      B. A.G. Tansley                      C. Walter Rosen                      D. Marie Gibbs
- What does biodiversity refer to?  
A. Variation in weather patterns      B. Variety of life on Earth                      C. Changes in geological formations                      D. Population rates growth

13. What is the primary cause of the loss of biodiversity?  
A. Climate change      B. Habitat destruction      C. Genetic mutations      D. Invasive species
14. What is the primary cause of habitat loss and degradation, one of the major threats to biodiversity?  
A. Climate change      B. Pollution      C. Deforestation      D. Invasive species
15. What term refers to the variety of plant and animal species within a forest ecosystem?  
A. Forest diversity      B. Habitat diversity      C. Biodiversity      D. Species richness
16. Which of the following is NOT a factor contributing to forest wealth?  
A. Biodiversity      B. Timber production      C. Soil degradation      D. Medicinal plants
17. Which of the following is NOT a threat to forest biodiversity?  
A. Deforestation      B. Habitat fragmentation      C. Afforestation      D. Invasive species introduction
18. Which of the following is a consequence of deforestation?  
A. Increased biodiversity      B. Soil erosion      C. Enhanced carbon sequestration      D. Improved water quality
19. What are the main drivers of deforestation?  
A. Afforestation efforts      B. Conservation initiatives      C. Urbanization, agriculture, and logging      D. Sustainable forestry practices
20. How does deforestation contribute to climate change?  
A. By reducing greenhouse gas emissions      B. By increasing the absorption of carbon dioxide      C. By releasing carbon stored in trees into the atmosphere      D. By promoting the growth of new forests
21. Energy is measured in  
A. Blu      B. Bhv      C. Btu      D. Ntu
22. Which of the following is not a renewable source of energy?  
A. Fossil fuels      B. Solar energy      C. Tidal wave energy      D. Wind energy
23. The basic element of fossil fuel is  
A. Sulphur      B. Phosphorous      C. Carbon      D. Oxygen
24. Renewable energy is  
A. Primary source      B. Secondary source      C. Tertiary source      D. None of these
25. Good example of renewable energy sources is  
A. Hydro power      B. Coal      C. Oil      D. None of these
26. Wind energy generation depends on  
A. Direction of wind      B. Velocity of wind      C. Humidity      D. Precipitation
27. Harnessing the wind energy is done by  
A. Windmill      B. Ball mill      C. Flour Mill      D. Pig mill
28. Which place in India the tidal energy has been experimented?  
A. Goa      B. Karnataka      C. Kerala      D. Tamil Nadu
29. The sources of Hydrogen are  
A. Biomass      B. Coal      C. Water      D. All of these

30. What is the source of energy that drives the OTEC process?  
 A. Solar energy      B. Wind energy      C. Geothermal energy      D. Ocean thermal energy
31. What is the primary goal of sustainable mining practices?  
 A. Maximizing resource extraction      B. Minimizing community involvement      C. Minimizing environmental impact      D. Maximizing short- term profits
32. What is the primary goal of cloud seeding?  
 A. Enhancing cloud visibility      B. Suppressing cloud formation      C. Modifying precipitation patterns      D. Creating artificial clouds for aesthetic purposes.
33. Which substance is commonly used in cloud seeding to encourage precipitation?  
 A. Carbon dioxide      B. Silver iodide      C. Nitrogen oxides      D. Ozone
34. In which weather conditions is cloud seeding most commonly applied?  
 A. Clear skies      B. Heavy rainfall      C. Drought conditions      D. Thunderstorms
35. What is the primary aim of carbon trading?  
 A. To reduce carbon emissions by government mandate      B. To create a market for buying and selling carbon credits      C. To encourage the use of carbon-intensive technologies      D. To penalize Companies for emitting greenhouse gases
36. What is the basic unit of measurement used in carbon trading?  
 A. Greenhouse Gas Index (GGI)      B. Carbon Emission Unit (CEU)      C. Carbon Credit (CC)      D. Global warming Potential (GWP)
37. Which international agreement includes provisions for carbon trading to address climate change?  
 A. Kyoto Protocol      B. Vienna Convention      C. Montreal Protocol      D. Basel Convention
38. Which greenhouse gas is most commonly regulated in carbon trading systems?  
 A. Methane (CH<sub>4</sub>)      B. Nitrous oxide (N<sub>2</sub>O)      C. Carbon monoxide (CO)      D. Sulphur dioxide (SO<sub>2</sub>)
39. What is the primary goal of disaster management?  
 A. Response      B. Preparedness      C. Recovery      D. Mitigation
40. Which of the following is an example of a natural disaster?  
 A. Nuclear meltdown      B. Terrorist attack      C. Hurricane      D. Industrial accident
41. What is the primary source of surface water pollution?  
 A. Industrial discharges      B. Natural processes      C. Agricultural runoff      D. Atmospheric deposition
42. Which of the following is a common groundwater pollutant from agricultural activities  
 A. Lead      B. Mercury      C. Nitrate      D. Sulfur dioxide
43. Which pollutant is commonly associated with oil spills in surface waters?  
 A. Nitrate      B. Benzene      C. Phosphate      D. Carbon monoxide

44. What is the best definition of noise pollution?
- |   |   |  |  |
|---|---|--|--|
| A. The natural soundscape in an environment | B. Pleasant and soothing sounds in a residential area | C. Excessive or disruptive noise that can harm health and well-being | D. The absence of sound in a given space |
|---|---|--|--|
45. What is the primary source of noise pollution in urban areas?
- |             |            |         |               |
|-------------|------------|---------|---------------|
| A. Birdsong | B. Traffic | C. Wind | D. Water flow |
|-------------|------------|---------|---------------|
46. What type of noise is produced by industrial machinery and construction activities?
- |                |               |                  |                       |
|----------------|---------------|------------------|-----------------------|
| A. White noise | B. Pink noise | C. Ambient noise | D. Occupational noise |
|----------------|---------------|------------------|-----------------------|
47. Which of the following is a common chemical pollutant in soil resulting from industrial activities?
- |             |                   |                 |           |
|-------------|-------------------|-----------------|-----------|
| A. Nitrogen | B. Carbon dioxide | C. Heavy metals | D. Oxygen |
|-------------|-------------------|-----------------|-----------|
48. Which human activity is a major contributor to soil erosion and degradation?
- |              |                  |                |                    |
|--------------|------------------|----------------|--------------------|
| A. Recycling | B. Afforestation | C. Overgrazing | D. Organic farming |
|--------------|------------------|----------------|--------------------|
49. What is the major component responsible for the formation of ground-level ozone in urban air pollution?
- |  |                                      |                         |                               |
|--|--------------------------------------|-------------------------|-------------------------------|
| A. Nitrogen dioxide (NO <sub>2</sub> ) | B. Sulfur dioxide (SO <sub>2</sub> ) | C. Carbon monoxide (CO) | D. Methane (CH <sub>4</sub> ) |
|--|--------------------------------------|-------------------------|-------------------------------|
50. What is a common source of indoor air pollution in residential areas?
- |                         |              |                        |                          |
|-------------------------|--------------|------------------------|--------------------------|
| A. Industrial emissions | B. Radon gas | C. Agricultural runoff | D. Ultraviolet radiation |
|-------------------------|--------------|------------------------|--------------------------|
51. Which air pollutant is responsible for the depletion of the ozone layer in the stratosphere?
- |                         |                                      |                               |                          |
|-------------------------|--------------------------------------|-------------------------------|--------------------------|
| A. Carbon monoxide (CO) | B. Sulfur dioxide (SO <sub>2</sub> ) | C. Chlorofluorocarbons (CFCs) | D. Ultraviolet radiation |
|-------------------------|--------------------------------------|-------------------------------|--------------------------|
52. What is the primary goal of waste management?
- |                             |                                     |                                       |                                 |
|-----------------------------|-------------------------------------|---------------------------------------|---------------------------------|
| A. Elimination of all waste | B. Minimization of waste generation | C. Exporting waste to other countries | D. Increasing landfill capacity |
|-----------------------------|-------------------------------------|---------------------------------------|---------------------------------|
53. What is the process of converting waste materials into reusable materials called?
- |                 |                |              |               |
|-----------------|----------------|--------------|---------------|
| A. Incineration | B. Landfilling | C. Recycling | D. Composting |
|-----------------|----------------|--------------|---------------|
54. What is the term for the practice of reducing waste by using fewer resources and products?
- |              |               |                    |                     |
|--------------|---------------|--------------------|---------------------|
| A. Recycling | B. Composting | C. Waste-to-energy | D. Source reduction |
|--------------|---------------|--------------------|---------------------|
55. Which of the following is a common method for the disposal of biomedical waste?
- |               |                 |                |              |
|---------------|-----------------|----------------|--------------|
| A. Composting | B. Incineration | C. Landfilling | D. Recycling |
|---------------|-----------------|----------------|--------------|
56. Which of the following is considered biomedical waste?
- |                    |                              |                    |                     |
|--------------------|------------------------------|--------------------|---------------------|
| A. Plastic bottles | B. Used syringes and needles | C. Paper packaging | D. Glass containers |
|--------------------|------------------------------|--------------------|---------------------|
57. Which of the following is a common method for the disposal of non-hazardous solid waste in designated areas?
- |               |                 |                |              |
|---------------|-----------------|----------------|--------------|
| A. Composting | B. Incineration | C. Landfilling | D. Recycling |
|---------------|-----------------|----------------|--------------|
58. What is the primary environmental concern associated with improper disposal of e-waste?
- |                 |                  |                        |                         |
|-----------------|------------------|------------------------|-------------------------|
| A. Soil erosion | B. Air pollution | C. Water contamination | D. Loss of biodiversity |
|-----------------|------------------|------------------------|-------------------------|

- 59.** What is the primary purpose of dewatering in sludge treatment?
- |                                     |  |                                       |   |
|-------------------------------------|--|---------------------------------------|---|
| A. To increase the volume of sludge | B. To reduce the concentration of pollutants | C. To improve the stability of sludge | D. To facilitate easier transportation and disposal |
|-------------------------------------|--|---------------------------------------|---|
- 60.** Which method is commonly used for the final disposal of treated sludge?
- |                 |                     |                                       |                                       |
|-----------------|---------------------|---------------------------------------|---------------------------------------|
| A. Incineration | B. Land application | C. Direct discharge into water bodies | D. Uncontrolled dumping in open areas |
|-----------------|---------------------|---------------------------------------|---------------------------------------|
- 61.** Ground water is a source of trouble at which place?
- |           |           |          |           |
|-----------|-----------|----------|-----------|
| A. Plains | B. Rivers | C. Lakes | D. Slopes |
|-----------|-----------|----------|-----------|
- 62.** The meaning of global warming is
- |   |                               |                    |         |
|---|-------------------------------|--------------------|---------|
| A. Increase in the temperature of climate | B. A planet hotter than earth | C. Solar radiation | D. None |
|---|-------------------------------|--------------------|---------|
- 63.** Which of the following is not a source of CO<sub>2</sub> in the atmosphere?
- |                            |                   |                       |   |
|----------------------------|-------------------|-----------------------|---|
| A. Burning of fossil fuels | B. Photosynthesis | C. Volcanic eruptions | D. Animal & plant respiration and decay |
|----------------------------|-------------------|-----------------------|---|
- 64.** Which of the following is not a greenhouse gas?
- |              |           |           |         |
|--------------|-----------|-----------|---------|
| A. Volcanoes | B. Oceans | C. Rivers | D. None |
|--------------|-----------|-----------|---------|
- 65.** The pH of Acid rain is
- |                  |                       |                       |                 |
|------------------|-----------------------|-----------------------|-----------------|
| A. Less than 5.7 | B. between 6.5 to 6.7 | C. between 7.5 to 7.7 | D. All of these |
|------------------|-----------------------|-----------------------|-----------------|
- 66.** Acid rain has been increasing day by day due to
- |                 |                      |                                   |         |
|-----------------|----------------------|-----------------------------------|---------|
| A. Urbanization | B. Industrialization | C. Increase in vehicle population | D. None |
|-----------------|----------------------|-----------------------------------|---------|
- 67.** The effect of acid rain
- |                           |                                      |                                 |                |
|---------------------------|--------------------------------------|---------------------------------|----------------|
| A. Reduces soil fertility | B. Increases atmospheric temperature | C. Causing respiratory problems | D. Skin cancer |
|---------------------------|--------------------------------------|---------------------------------|----------------|
- 68.** The term acid rain was coined in the year
- |         |         |         |         |
|---------|---------|---------|---------|
| A. 1952 | B. 1652 | C. 1752 | D. 1852 |
|---------|---------|---------|---------|
- 69.** Ozone layer is present in
- |                |               |                 |                 |
|----------------|---------------|-----------------|-----------------|
| A. Troposphere | B. Mesosphere | C. Thermosphere | D. Stratosphere |
|----------------|---------------|-----------------|-----------------|
- 70.** Which of the following is the unit for measuring the thickness of Ozone layer?
- |           |           |           |           |
|-----------|-----------|-----------|-----------|
| A. 300 DU | B. 200 DU | C. 400 DU | D. 500 DU |
|-----------|-----------|-----------|-----------|
- 71.** Ozone layers absorbs
- |                  |            |                |       |
|------------------|------------|----------------|-------|
| A. Infrared rays | B. UV rays | C. Cosmic rays | D. CO |
|------------------|------------|----------------|-------|
- 72.** World Ozone day is being celebrated on
- |                               |                             |                              |                               |
|-------------------------------|-----------------------------|------------------------------|-------------------------------|
| A. September 11 <sup>th</sup> | B. October 15 <sup>th</sup> | C. September 5 <sup>th</sup> | D. September 16 <sup>th</sup> |
|-------------------------------|-----------------------------|------------------------------|-------------------------------|
- 73.** The fluoride concentration for prevention of dental caries is.....
- |           |           |           |           |
|-----------|-----------|-----------|-----------|
| A. 1 mg/l | B. 2 mg/l | C. 3 mg/l | D. 4 mg/l |
|-----------|-----------|-----------|-----------|

74. The process of reducing the fluoride content from water is called.....  
 A. Chlorination      B. De-fluoridation      C. Flocculation      D. Fluoridation
75. LUDCP stands for:  
 A. Land Use and Development Control Programme      B. Land Use and Design Control Plan      C. Land Use and Design Control Plan      D. Land Use and Development Control Plan
76. First water Fluoridation was done in  
 A. Sweden      B. Canada      C. Michigan      D. California
77. Where does Radon come from?  
 A. Rocks      B. Soil      C. Water      D. All of the above
78. Ozone hole was first discovered over  
 A. Arctic      B. Antarctica      C. Tropical region      D. Africa
79. Radon levels are measured in picocuries (pCi/L). What's the maximum level of Radon acceptable in a home?  
 A. 40 pCi/L      B. 04 pCi/L      C. 44 pCi/L      D. 14 pCi/L
80. Which is the most urbanized state of India according to the census of India, 2011?  
 A. Bihar      B. Assam      C. Himachal Pradesh      D. Tamil Nadu
81. What is Remote Sensing?  
 A. Touching objects from a distance      B. Sensing without human involvement      C. Collecting data from a distance using sensors      D. Sensing emotions remotely
82. What is the primary purpose of remote sensing?  
 A. Entertainment      B. Transportation      C. Scientific research      D. Agricultural production
83. Which electromagnetic spectrum region is commonly used in remote sensing for vegetation analysis?  
 A. Ultraviolet      B. Visible      C. Infrared      D. Microwave
84. In remote sensing, what does LiDAR stand for?  
 A. Laser Imaging Detection and Ranging      B. Land Information Database and Retrieval      C. Long-distance Radar      D. Light Detection and Ranging
85. Which of the following is an application of remote sensing in archaeology?  
 A. Crop monitoring      B. Urban planning      C. Soil moisture assessment      D. Site detection and mapping
86. GIS uses the information from which of following sources?  
 A. Non- spatial information system      B. Global information system      C. Position information system      D. Spatial information system
87. Which among the following is not related to GIS software's?  
 A. CAD      B. Arc GIS      C. Arc view      D. STAAD Pro

88. GIS stands for  
A. Geographic Information system      B. Generic Information System      C. Geological Information System      D. None of these
89. By “Spatial data” we mean the data that has  
A. Complex values      B. Positional values      C. Grammar values      D. Decimal values
90. Which of the following field is used by the EM waves?  
A. Solar field      B. Polarized field      C. Electric field      D. White field
91. In EIA the baseline data describes  
A. The environmental consequences by mapping      B. Assessment of risk on the basis of proposal      C. Demographic and socio-economic data      D. Existing environmental status of the identified study area
92. In a typical municipal solid waste, least percentage of Ash is found in  
A. Textiles      B. Plastic      C. Leather      D. Rubber
93. What is the first step in primary sewage treatment plants?  
A. Fine screening      B. Course screening      C. Chlorination      D. Primary settling tank
94. What is the first stage of EMS process?  
A. Set environment objectives and targets      B. Establish environment policy      C. Assign environment responsibility      D. None of these
95. Which of the following is the UN agency on Health?  
A. UNESCO      B. WTO      C. HOW      D. WHO
96. Which of the following is an active remote sensing technique?  
A. Passive microwave sensing      B. Infrared photography      C. RADAR      D. Optical imagery
97. Which of the following electromagnetic waves are commonly used in remote sensing?  
A. Radio waves      B. Infrared waves      C. Ultraviolet waves      D. All of the above
98. Who is known as the 'Father of GIS'?  
A. Dr. Roger Tomilson      B. Dr. John Smith      C. Dr. Emily Williams      D. Dr. Michael Johnson
99. Which of the following is NOT a common application of GIS?  
A. Environmental monitoring      B. Transportation planning      C. Genome sequencing      D. Urban planning
100. Which spatial analysis technique in GIS involves determining the best route between two locations?  
A. Buffer analysis      B. Network analysis      C. Overlay analysis      D. Interpolation analysis

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