



USN

Question Paper Version : A

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Environmental Studies and E - Waste Management

Time: 1 hr

Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the fifty questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. For each question, after selecting your answer, **darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the OMR sheets are strictly prohibited.

1. Which of the following conceptual spheres of the environment is having the least storage capacity of matter?
 a) Atmosphere b) Lithosphere c) Hydrosphere d) Biosphere
2. In an eco-system, the flow of energy is
 a) Bidirectional b) Cyclic c) Unidirectional d) Multi Directional
3. Which of the following is not a prominent Chemical responsible for a good habitat?
 a) Oxygen b) Carbondioxide c) SO₂ d) Nutrients
4. In complex eco-systems, the degree of species Diversity is
 a) Poor b) Medium c) High d) None of these
5. World Environment day is on
 a) 5th May b) 5th June c) 18th July d) 14th August
6. Abiotic component includes
 a) Soil b) Temperature c) Water d) All of these
7. The sequence of eating and being eaten in an ecosystem is
 a) Food chain b) Carbon cycle c) Water cycle d) Anthropoco system
8. The organisms which directly feed on producer called
 a) Herbivores b) Carnivores c) Ominivores d) Decomposer
9. In an eco-system biological cycling of materials is maintains by
 a) Producer b) Consumer c) Decomposer d) All of these

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10. Which pyramid is always upright
 a) Energy b) Biomass c) Numbers d) Food chain
11. Blue baby syndrome is caused by contamination of water due to
 a) Phosphates b) Sulphur c) Arsenic d) Nitrates
12. Major source of Flouride is
 a) River water b) Ground water c) Food products d) Tooth paste
13. Out of the following Nutrients in Fertilizer which one causes minimum water pollution
 a) Nitrogen b) Phosphorous c) Pottasium d) Organic matter
14. Excess fluorides in drinking water is likely to cause
 a) Blue babies b) Fluorosis c) Taste and odour d) Intestinal irritation
15. Disinfection of water is used to remove
 a) Bacteria b) Odour c) Turbidity d) Colour
16. Brackish water is found in
 a) Estuaries b) Salt lake c) Polar Ice caps d) Both a) and b)
17. Which one of the following is not a renewable energy?
 a) Fossil Fuels b) Solar energy c) Wind energy d) Tidal wave energy
18. Natural gas consists mainly of
 a) Ethane b) Propane c) Butane d) Methane
19. Which of the following is considered as an alternate promising Fuel?
 a) CNG b) Kerosene c) Coal d) Petrol
20. Bio mass consists of
 a) Lignin b) Hermicellulose c) Cellulose d) All of these
21. Nuclear power is being produced from
 a) Carbon -14 b) Uranium c) Petroleum combustion d) Natural gas
22. Direct conversion of solar energy is attained by
 a) Solar Photo voltaic system b) Solar diesel hybrid system
 c) Solar thermal system d) Solar air heater
23. Pollutant waste water discharged from industries is known as
 a) Effluent b) Sludge c) Pathogens d) Contaminant
24. Anaerobiosis makes water
 a) Clear b) Muddy c) Red d) Brownish or blackish
25. Which of the following is causes Entriphication
 a) Nitrates b) Phosphates c) Heavy metals d) Both a) and b)
26. The word pollution is derived from the latin word
 a) Pollute b) Pollutant c) Pollure d) Play- tant

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27. Which of the following are non-bio degradable?
a) Plastics b) Domestic sewage c) detergent d) a) and c)
28. Which of the following is secondary air pollutant?
a) Carbon monoxide b) Ozone c) Sulphur dioxide d) Carbon dioxide
29. Minamata Disease is caused due to
a) Lead b) Arsenic c) Mercury d) Cadmium
30. Increase in asthma attacks has been linked to high level of
a) Nitrogen b) Oxygen c) Air-borne particles d) All of these
31. Which of the following is an air pollutant?
a) Carbon b) Oxygen c) Nitrogen d) Particulate matter
32. Demography is the study of
a) Animals behaviour b) Population growth c) River d) None of these
33. The urban solid waste is known as
a) Garbage b) Rubbish c) Refuge d) Silt
34. Activated sludge process is
a) Anaerobic method b) Aerobic method c) Both a) and b) d) Land filling
35. Which toxic component not found in e-waste
a) Mercury b) Cadmium c) Neon d) Lead
36. Disposal of Bio-medical waste is by
a) Autoclave and land filling b) Incineration c) Both a) and b) d) Landfilling
37. What does e-waste stands for
a) Environment waste b) Equipment waste c) Electronic waste d) None of these
38. Which country produces maximum e-waste per year
a) India b) USA c) China d) France
39. What is the hazardous pollutant released in LED's?
a) Barium b) Arsenic c) Cobalt d) Cadmium
40. Under the E-Waste Management Rules 2016, who is responsible for the collection of e-waste from end-users
a) Retailer b) Manufacturers c) Bulk consumers d) Informal cycles
41. What percentage of e-waste is typically recycled Globally?
a) 10% b) 20% c) 40% d) 60%
42. What is the first step in the e-waste recycling process?
a) Shredding b) Sorting c) Melting d) Crushing

43. Which component often contain valuable metals like Gold, Silver and Copper?
a) Printed circuit boards b) Glass screens c) Plastic casing d) Power cords
44. What are the health hazards which can caused by e-waste?
a) Lung cancer b) DNA Damage c) Brain d) All of these
45. Where should syringe Disposed?
a) Pharma pail b) Sharps container c) Gray tote d) Red pail
46. Which is the hazardous pollutant which can caused by e-waste released from electron?
a) Arsenic b) Barium c) Cadmium d) Cobalt
47. Where should blood product pack to dispose?
a) Gray tote/yellow pail b) Regular waste c) Pharma pail d) Red pail
48. Which one is Municipal Solid Waste?
a) Toxic b) Hazardous c) Non-Toxic d) Non-Hazardous
49. Nickel is released from _____
a) Display b) Calculator c) Alloy d) None of these
50. Which is the hazardous pollutant occurs is plastic?
a) Lithium b) PCB's c) Lead d) Copper

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1d) Biosphere
2c) Unidirectional
3c) SO₂
4c) High
5b) 5th June
6d) All of these
7a) Food chain
8a) Herbivores
9d) All of these
10a) Energy
11d) Nitrates
12b) Groundwater
13c) Potassium
14b) Fluorosis
15a) Bacteria
16d) Both a) and b)
17a) Fossil fuels
18d) Methane
20d) All of these
21b) Uranium
22a) Solar photovoltaic system
23a) Effluent
24d) Brownish or blackish
25d) Both a) and b)
26c) Pollute
27a) Plastics
28b) Ozone
29c) Mercury
30c) Air-borne particles
31d) Particulate matter
32b) Population growth
33a) Garbage
34b) Aerobic method
35c) Neon
36c) Both a) and b)
37c) Electronic waste
38b) USA
39d) Cadmium
40b) Manufacturers
41b) 20%
42b) Sorting
43a) Printed circuit boards
44d) All of these
45b) Sharps container
46c) Cadmium
47d) Red pail
48d) Non-Hazardous
49c) Alloys
50b) PCB's