USN ⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜

Fifth Semester B.E Degree Examination, June/July 2023
Environmental Studies
(COMMON TO ALL BRANCHES)

Time: 2 hrs.]   [Max. Marks: 100

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the hundred 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. How many parts are there in the forest ecosystem?
    a) One   b) Two   c) Three   d) Four

2. On which factor forest type is mainly dependent
    a) Abiotic   b) Size of forest
    c) Shape of Trees   d) Production from the trees

3. The forest cover in India has recently increased due to
    a) Increase in natural forest growth
    b) Increase in net sown area
    c) Plantation by different agencies
    d) None of the above

4. What is not entirely correct about desert?
    a) It is dry and hot   b) Waterless
    c) Without shelter   d) All of these

5. Who have learnt to live under very hot and dry conditions
    a) People   b) Plants   c) Animals   d) All of these

6. The term wet land implies
    a) Land covers by rain water only
    b) Slow moving water covered wet ground
    c) Water logged wet ground
    d) Fast moving water covered wet ground

7. World Wetland day celebrated every year on _____ February
    a) 2nd b) 3rd c) 4th d) 15th

8. World's most saltiest sea is
   a) Mediterranean Sea   b) Dead Sea   c) Callibben Sea   d) Black Sea

9. Atmosphere contains 79 percent Nitrogen and 21 percent Oxygen by
   a) Volume   b) Weight   c) Density   d) All of these

10. In complex ecosystem the degree of species diversity is
    a) Poor   b) High   c) Medium   d) None

11. The organisms who directly feed on producers are called
    a) Herbivores   b) Carnivores   c) Decomposers   d) Sprophytes

12. Abiotic component includes
    a) Soil   b) Water   c) Temperature   d) All of these

13. Which of the following is the climatic factor
    a) Pressure   b) Humidity   c) Temperature   d) All of these

14. The basic requirements of human beings are provided by
    a) Industrialization   b) Agriculture   c) Nature   d) Urbonization

15. Which atmospheric sphere is closest to the earth surface?
    a) Troposphere   b) Stratosphere   c) Mesosphere   d) Exosphere

16. A food web consists of
    a) A portion of a food chain
    b) An organism position in a food chain
    c) Interlocking food chains
    d) A set of similar consumers

17. The pyramid of energy is
    a) Always upright   b) Always inverted
    c) Both uplight and inverted   d) None of these

18. Which is the most stable ecosystem
    a) Mountain   b) Desert   c) Forest   d) Ocean

19. 'Earth Day' is held every year on
    a) June 5th   b) November 23rd   c) April 22nd   d) Jan 10th

20. Which of the following is absorbed by green plants from the atmosphere?
    a) Carbon dioxide   b) Water   c) Nutrients   d) All of these

21. The most commonly used chemicals in the artificial cloud seeding
    a) Silver iodide   b) Sodium chloride   c) Dry ice   d) All of these

22. Bhopal disaster is a kind of _____
    a) Natural disaster   b) Manmade disaster   c) None of (a) & (b)   d) Other

23. National disaster management is headed by
    a) Prime minister   b) President of India
    c) Governor of states   d) Chief minister of states.

24. Disaster management includes
   a) Mitigation   b) Reconstruction   c) Rehabilitation   d) All of these

25. Floods can be prevented by _____
   a) Attorestation   b) Cutting the forest
   c) Tilling the land   d) Removing the top soil

26. Which of the following is not a type of primary source
   a) Crude oil   b) Coal   c) Hydrogen energy   d) Sunlight

27. Which of these energy resources are widely used in industries?
   a) Coal and Gasoline   b) Wood   c) Biogas   d) Crop residue

28. What does OTEC stands for?
   a) Ocean thermal energy cultivation
   b) Ocean thermal energy conversion
   c) Ocean techno energy conversation
   d) Ocean thermal energy consumption

29. What is the basic requirement for hydro electric power station?
   a) Reservoir   b) Turbine   c) Power house   d) Penstock

30. Photovoltaic cell converts solar energy into
   a) Heat energy   b) Electrical energy   c) Mechanical energy   d) Chemical energy

31. Which of the following is non-renewable resource?
   a) Coal   b) Forests   c) Water   d) Wildlife

32. Both power and manure is provided by :
   a) Nuclear plants   b) Thermal plants   c) Biogas plants   d) Hydroelectric plant

33. At what range of speed is the electricity from the wind turbine is generated
   a) 100 – 125 Mph   b) 450 – 600 Mph   c) 200 – 250 Mph   d) 30 – 35 Mph

34. What is used to turn wind energy into electrical energy
   a) Turbine   b) Generator   c) Yaw motor   d) Blades

35. What type of energy is wind energy?
   a) Renewable   b) Non-Renewable   c) Conventional   d) Commercial

36. How is OTEC caused?
   a) By wind energy   b) By geothermal energy
   c) By solar energy   d) By gravitational force

37. Series of parallel combination of the solar cell is known as _____
   a) Solar array   b) Solar light   c) Solar sight   d) Solar eye

38. Materials used for making solar cell is _____
   a) Silicon   b) Carbon   c) Sodium   d) Magnesium

39. Quarries are generally
   a) Open pits   b) Surface coal mines
   c) Underground mines   d) Explosive mines

40. When the minerals are located to deep in the ground, the method used for mining is
    a) Open pit method   b) Quarries   c) Surface mining   d) Sub surface mining

41. Major pollution causing agent is
    a) Man   b) Animals
    c) Hydrocarbon gases   d) None of these

42. The result of ozone hole is
    a) Acid rain   b) UV radiations   c) Global warming   d) Green house effect

43. Which of the following causes out break of jaundice
    a) Air pollution   b) Water pollution   c) Thermal pollution   d) Soil pollution

44. Minamata disease caused by pollution of water by
    a) Mercury   b) Lead
    c) Tin   d) Methyl ISD Cyanate

45. Noise is measured using sound meter and the unit is
    a) Hertz   b) Decibel   c) Joule   d) Sound

46. Air pollution causes
    a) Global warming   b) Respiratory problems
    c) Soil erosion   d) None of these

47. Intake of lead may primarily cause damage of the _____
    a) Brain   b) Liver   c) Lung   d) Kidney

48. According to WHO maximum permissible level of chlorides in drinking water is _____
    a) 100 mg/L   b) 600mg/L   c) 800mg/L   d) 200mg/L

49. The main source of water pollution is _____
    a) Sewage water   b) Industrial pollutants
    c) Acid rain   d) None of these

50. What is the health effects of excess fluoride in drinking water
    a) Fluoros's   b) Toothaches   c) Lung disease   d) Brain problem

51. Bacteria and micro organisms present in water will cause _____ in human and animals
    a) Indigestion   b) Intestinal tract   c) Brain tumor   d) Cancer

52. Why it is difficult to recycle plastics?
    a) It is very hard
    b) It comes in different sizes
    c) It is adhesive
    d) It contains different types of polymer resins

53. The disposable wastes contain
    a) Solids   b) Slurries   c) Liquids   d) All of these

54. Identify the following ones which can be recycled many times
    a) Plastic   b) Wood   c) Aluminum   d) Organic materials

55. Noise pollution limits at residential area
    a) 80 dB   b) 45 dB   c) 90dB   d) 120dB

56. Which of the following make e-waste hazardous in nature
   a) Glass   b) Plastic   c) Lead   d) Iron

57. What is the hazardous pollutant released form LED's?
   a) Barium   b) Arsenic   c) Cobalt   d) Cadmium

58. What is the hazardous pollutant released form batteries?
   a) Arsenic   b) Cadmium   c) Copper   d) Cobalt

59. What proportion of health care waste is hazardous waste
   a) 25%   b) 15%   c) 50%   d) 80%

60. What is the hazardous waste released from telephones
   a) Barium   b) Copper   c) Lithium   d) Lead

61. Which of the following contains most water
   a) Atmosphere   b) Biosphere   c) Ground water   d) Lakes and Rivers

62. Hard water contains large amount of _____
   a) Lead   b) Sodium   c) Calcium   d) Silicon

63. Water that is good enough to drink is called _____
   a) Potable water   b) Ground water   c) Surface water   d) Artesian water

64. The pH value of acid rain water is
   a) 5.7   b) 7.0   c) 8.5   d) 7.5

65. The primary cause of acid rain around the world is _____
   a) CFC   b) SO_2 c) CO   d) O_3

66. Acid rain can be controlled by
   a) Reducing SO_2 and NO_2 emissions
   b) Reducing oxygen emissions
   c) Increasing number of lakes
   d) Increasing the forest cover

67 The effect of acid rain
   a) Reduces soil fertility
   b) Increases atmospheric temperature
   c) Causing respiratory problem
   d) Skin cancer

68 Major compound responsible for the destruction of stratospheric ozone layer is
   a) Oxygen   b) CFC   c) CO_2 d) Methane

69. Ozone layer thickness is measured in
   a) PPM   b) PPB   c) Decibles   d) Dobson units

70. Normal average thickness of stratospheric ozone layer across the globe is around
   a) 5 PPM   b) 300 DU   c) 400 DU   d) 500 DU

71. Chloro Fluro Carbon's (CFC) are
   a) Non-toxic   b) Non – Flammable
   c) Non Carcinogenic   d) All of these

72. Breathing radon over time causes
    a) Lung cancer   b) Oral cancer   c) Skin cancer   d) All of these

73. Radon gas is
    a) Inert   b) Colorless   c) Odorless   d) All of these

74. Ozone depletion causes
    a) Snow blindness   b) Photochemical smog
    c) Acid rain   d) Vomiting

75. World ozone day is observed on
    a) November 16   b) October 16   c) Jan 16   d) September 16

76. A great way to reduce acid rain is
    a) Use of solar power
    b) Use of wind power
    c) User of hydropower
    d) All of these

77. Ozone layer was first discovered over
    a) Arctic   b) Antarctical
    c) Tropical Region   d) Africa

78. Animal husbandry results in
    a) Global warming   b) Acid rain
    c) Ozone depletion   d) None of these

79. Formation of ozone layer is explained by
    a) Rosenmund reaction
    b) Henderson's reaction
    c) Chapman's reaction
    d) Perkin's reaction

80. The main cause of acid rain is
    a) Soil pollution   b) Water pollution   c) Air pollution   d) All of these

81. Remote sensing technique makes use of properties of _____
    a) Electric waves   b) Sound waves
    c) Electromagnetic waves   d) Wind waves

82. The attitude distance of a geostationary satellite from earth is about
    a) 26,000 km   b) 30,000 km   c) 36000 km   d) 44000 km

83. The changes in the reflectivity/emissivity with time is called
    a) Spectral variation   b) Spatial variation
    c) Temporal variation   d) None of these

84. Which one of the following helps to find objects on the earth surface
    a) Atmospheric window   b) Signature
    c) Radiometric error   d) None of these

85. Orbital radius of GPS satellites is approximately
    a) 15000km   b) 26600km   c) 18400km   d) 36100km

86. GIS stands for
   a) Geographic Information System
   b) Generic Information System
   c) Geological Information System
   d) Geographic Information Sharing

87. GIS deals with what kind and data
   a) Numeric data   b) Binary data   c) Spatial data   d) Complex data

88. Among the following _____ is example of hardware
   a) Arc GIS   b) Auto CAD   c) Digitization   d) Mouse

89. Among the following which do not come under components of GIS?
   a) Hardware   b) Software   c) Compiler   d) Data

90. The relation between velocity, wave length and frequency is
   a) $\lambda = cf$ b) $\lambda = c/f$ c) $\lambda = c^2 f$ d) $\lambda = cf^2$

91. A short – term EIA (Environmental Impact Assessment) has a time period of
   a) 2 – 5 years   b) 10 – 15 years   c) 5 – 10 years   d) 5 – 7 years

92. EIA commenced in the year
   a) 1960's   b) 1890's   c) 1880's   d) 1950's

93. How many strategies are there in EIA
   a) 5   b) 3   c) 2   d) 4

94. Which is the first Country to pass the Amendment in the Parliament to safeguard the environment?
   a) India   b) Brazil   c) China   d) Denmark

95. ISO 14000 standards are for the
   a) Quality Management System
   b) Environmental Management System
   c) Administration
   d) Supply Chain

96. Who among the following is the most celebrated environmental activist in contemporary India?
   a) Anna Hazare
   b) Medha Patkar
   c) Vasundhara Raje
   d) Arvind Kejrival

97. What is the full form of NGO?
   a) Non – Governmental Organization
   b) No Governance Organization
   c) Non-Governance Organization
   d) Null Governmental Organization

98. When did Green peace founded
    a) 1965   b) 1967   c) 1968   d) 1971

99. When did Wild Protection Act included in the Constitution of India.
    a) 1980   b) 1972   c) 1920   d) 1992

100. When did World Nature Organization (WNO) be established?
    a) 2000   b) 2001   c) 2010   d) 2014

* * * * *