SRI SAIRAM COLLEGE OF ENGINEERING

CBCS SCHEME

BCS508

USN | | | | | | | | | | |

Question Paper Version : D

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025
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.

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1. What is the Dissolved oxygen value required for the survival of aquatic species?
   a) 7 mg/L b) 8.2 mg/L c) 6.5 mg/L d) 4 mg/L

2. Which among the following is used to dump the waste collected in the cities?
   a) Land fills b) Ocean c) River d) All of these

3. Which type of waste includes items such as leftover food, fruit peels and yard trimmings?
   a) Hazardous waste b) Organic waste
   c) Bio – medical waste d) Electronic waste

4. Which of the integrated waste management is reduced on an individual level?
   a) Source Reduction b) Recycling c) Disposal d) Burning

5. What is called for the process of burning municipal solid waste in a properly designed furnace under suitable temperature and operating conditions?
   a) Landfill b) Recycling c) Vermicomposting d) Incineration

6. The process of decomposition of biodegradable solid waste by earthworms is called
   a) Landfill b) Vermicomposting c) Composting d) Shredding

7. ____ is a liquid that passes through solid waste and extracts suspended impurities from it
   a) Leachate b) Sludge c) Distilled water d) Municipal

8. The colour code of plastic bag for disposing of microbial laboratory culture waste
   a) black b) red c) blue d) white

9. Average hospital waste produced per bed per day in Government hospital is
   a) 1.5 to 2 kg b) 0.5 – 4 kg c) 0.5 to 1 kg d) 0.5 – 2 kg

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10. Which of the following are the main contributors of the e –waste in the world?
    I. Refrigerators / freezers , washing machines , dishwashers.
    II. Small household appliances
    III. Personal computers, telephones , laptops , printers.
    IV. Gas cylinders, chimneys and home appliances
    a) Only I, II, III b) Only I & II c) Only I, III , IV d) All of these

11. Which of the following conceptual spheres of the environment is having the least storage capacity for matter?
    a) Atmosphere b) Lithosphere c) Hydrosphere d) Biosphere

12. The ratio between energy flows at different points in a food chain is known as
    a) Ecological capacity b) Ecological efficiency
    c) Ecological assimilation d) Ecological potential

13. A predator is
    a) An animal that is fed upon another animal
    b) Animal that feeds upon both plants and animals
    c) An animal that feeds upon another animal
    d) A primary consumer

14. Why Rann of Kutch attracts aquatic birds in monsoon season?
    a) Because desert land is converted to forest land
    b) Because desert land is converted to snow
    c) Because desert land do not convert
    d) Because desert land is converted to salt marshes

15. Which kind of soil we can find on the surface of Thar desert?
    a) Rocky b) Moist c) Fertile d) Aeolian

16. Which of the following type of forest important for watersheds?
    a) Tropical Evergreen forests b) Tropical Deciduous forests
    c) Tropical Montana forests d) Grassland forest

17. Hot spots areas have
    a) Low density of biodiversity b) Only endangered plants
    c) High density of hot springs d) High density of biodiversity

18. Sustainable Development means
    a) meeting present needs without compromising on future needs
    b) progress of human beings
    c) balance between human needs and the ability of earth to provide the resources
    d) all of these

19. The term Alpha diversity refers to
    a) Genetic diversity b) Community and ecosystem diversity
    c) Species diversity within a community or ecosystem
    d) Diversity among the plant

20. Algae , green plants and photosynthetic bacteria are
    a) Autotrophic b) Heterotrophic c) Decomposers d) Consumers

21. What is Extended Producer Responsibility (EPR) as per the e – waste management rules in India?
    a) The responsibility of consumer to manage e – waste
    b) The responsibility of manufactures to manage e – waste throughout the product life cycle
    c) The responsibility of retailers to manage e – waste disposal
    d) The responsibility of informal recyclers to manage e – waste.

22. Which international agreement regulates the transboundary movements of hazardous waste, including e – waste?
    a) Kyoto Protocol b) Paris agreement
    c) Montreal Protocol d) Basel convention

23. Which colour bin is used for e – waste?
    a) Blue b) Green c) Yellow d) Black

24. What are the health hazards which can be caused by E – waste?
    a) Lung cancer b) DNA damage c) Brain d) All of these

25. Preparation of Guidelines for Environmentally sound Management of e – waste is a duty assigned to
    a) Producer b) Consumer c) MOEFCC d) SP CB/PCC

26. What is India's global rank in e –waste?
    a) 3 b) 13 c) 23 d) 33

27. When did the Karnataka State Pollution Control Board for prevention and control of water pollution constituted?
    a) 1974 b) 1978 c) 1982 d) 1986

28. Aerosol consisting of liquid droplets is called as
    a) Mist b) Dust c) Fog d) Acrosol

29. Which of the following is non – point source of water pollution?
    a) Factories b) Sewage treatment plant
    c) Urban and suburban land d) All of these

30. When is World Water day celebrated?
    a) January 26th b) June 5th c) September 22nd d) March 22nd

31. _____ is caused by drinking water high in nitrates.
    a) Cholera b) Kidney problem
    c) Liver problem d) Methomoglobinemia

32. Bhopal gas tragedy took place in the year ____ and the gas responsible was ____
    a) 1964, Hydrogen fluoride b) 1974, Methyl chloride
    c) 1984, methyl ISO – cyanide d) 1994, Methyl sulphate

33. The major chemical pollutants in photochemical smog are
    a) NO, NO_2 , VOC , O_3 , PAN b) N_2O , NO_2 , VOC, O_3 , PAN
    c) NO, NO_2 , VOC , O_2 , PAN d) NO, N_2O_5, VOC, O_3 , PAN

34. The international protocol to protect the Ozone layer is
a) Vienna protocol b) Kyoto protocol
c) Cartagena protocol d) Montreal protocol

35. Which is the best and the worst method of plume behavior for pollution dispersion?
a) Lofting and fumigation b) Trapping and fanning
c) Conning and fumigation d) Fanning and Lofting

36. What is called for a Temporary hearing loss?
a) Temporary ear pain b) Temporary hearing problem
c) Temporary threshold shift d) Temporary hearing shift

37. What timings loud speakers shouldn't use in public areas?
a) 10.00 pm to 5.00 am b) 11.00 pm to 6.00 am
c) 1.00 am to 7.00 am d) 10.00 pm to 6.00 am

38. In which section, if a person violates the noise pollution regulations , is liable for penalty according to Environmental Protection Act, 1986.
a) Section 12 b) Section 15 c) Section 18 d) Section 19

39. 'Minamata Disease" is caused due to
a) Lead b) Arsenic c) Mercury d) Cadmium

40. The process of reducing the fluoride content from water is called as
a) Chlorination b) Fluoridation
c) Defluoridation d) Fanning and Lofting

41. Veld type grasslands are located at
a) South Africa b) South America c) Australia d) Britain

42. Which pyramid is always upright?
a) Energy b) Biomass c) Numbers d) Food chain

43. In what form is solar energy is radiated from the Sun?
a) Ultraviolet Radiation b) Infrared Radiation
c) Electromagnetic waves d) Transverse waves

44. What does MHD stands for in the energy field?
a) Magneto Hydro Dynamic b) Metal Hydrogen Detox
c) Micro Hybrid Drive d) Metering Head Differential

45. The 'Miracle Material' that can turn CO_2 into liquid fuel is :
a) Propane b) Copper c) Graphene d) Potassium

46. A tide whose difference between high and low tide is greatest.
a) Diurnal tide b) Neap tide c) Spring tide d) Ebb tide

47. Which of the turbine can be mounted vertically and horizontally.
a) Pelton wheel b) Kaplan turbine c) Gorlov turbine d) Francis turbine

48. Which type of fuel is removed from the reactor core after reaching end of core life service?
a) Burnt fuel b) Spent fuel c) Engine oil d) Radioactive fuel

49. What is a fuel cell?
a) Converts heat energy to chemical energy
b) Converts heat energy to electrical energy
c) Converts chemical energy to electrical energy
d) Converts kinetic energy to heat energy

50. Which one of the following is the apex organization in our country in the field of pollution control?
a) Water Pollution Control Board b) State Pollution Control Board
c) Central Pollution Control Board d) Air Pollution Control Board