INSTRUCTIONS TO CANDIDATES

1. Immediately after the commencement of the Examination, you should check that this Booklet does not have any unprinted or torn or missing pages or items, etc. If any of the above defects is found, get it replaced by a Complete Question Booklet of the available series.

2. Write clearly the Question Booklet Version Code A, B, C, D or E, in the appropriate space provided for the purpose, in the OMR Answer Sheet.

3. Enter the name of the Subject, Reg. No., Question Booklet version code and affix Signature on the OMR sheet. As the answer sheets are designed to suit the Optical Mark Reader (O.M.R.) system, special care should be taken to fill those items accurately.

4. This Question Booklet contains 70 questions carrying equal marks. All questions must be attempted. Each question contains four answers, among them one correct answer should be selected and shade the corresponding option in the OMR sheet.

5. All the answers should be marked only on the OMR sheet provided and only with a black or blue ink ball point pen. If more than one circle is shaded / wrongly shaded / half shaded for a given question no marks will be awarded.

6. Questions are in both English and Kannada. If any confusion arises in the Kannada version, please refer to the English version of the questions.

7. Immediately after the final bell indicating the closure of the examination, stop making any further markings in the OMR Answer Sheet. Be seated till the OMR Answer Sheet is collected. After handing over the OMR Answer Sheet to the Invigilator you may leave the examination hall.
1. Fresh sewage is in nature
   a) Alkaline
   b) Neutral
   c) Acidic
   d) None of the above
   तापः तापः तापः तापः
   a) तापः
   b) तापः
   c) तापः
   d) तापः

2. The biological decomposition of organic wastes under controlled conditions is known as
   a) Composting
   b) Sanitary landfills
   c) Incineration
   d) None of the above
   तापः तापः तापः तापः
   a) तापः
   b) तापः
   c) तापः
   d) तापः

3. Chernobyl nuclear disaster occurred in the year
   a) 1985
   b) 1987
   c) 1986
   d) 1988
   तापः तापः तापः तापः
   a) 1985
   b) 1987
   c) 1986
   d) 1988
4. Enrichment of nutrients in a water body leads to
   a) Eutrophication
   b) Biotransformation
   c) Biomagnification
   d) None of the above

5. The maximum permissible limit of nitrates in drinking water is
   a) 45 mg/l
   b) 79 mg/l
   c) 100 mg/l
   d) 250 mg/l

6. Environment Protection Act was enacted in the year
   a) 1974
   b) 1998
   c) 1986
   d) 1982
7. pH value of potable water is
   a) 3 and 5  
   c) 6.5 and 8.8  
   b) 10.5 and 12.6  
   d) 1.5 and 2.0

8. The chemical name for alum is
   a) Aluminium chloride  
   b) Silver nitrate  
   c) Aluminium sulphate  
   d) Copper sulphate

9. Consumptive, productive, social aesthetic and option values refer to
   a) Tropic structure  
   b) Ecosystem stability  
   c) Biodiversity  
   d) Dynamic equilibrium

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SPACE FOR ROUGH WORK

A
10. Due to incomplete combustion of fuels from petrol engines, the gas liberated is
   a) Carbon dioxide
   b) Carbon monoxide
   c) Nitrogen dioxide
   d) Sulphur dioxide

11. Some toxic compounds are ingested and retained in the tissues. These pollutants pose special risks to humans and other organisms high on the food chain because of which process?
   a) Synergism
   b) Compound contamination
   c) Biomagnification
   d) Carcinogenesis
12. The disease caused by drinking contamination
   a) Scurvy
   c) Malaria
   b) Typhoid
   d) Anemia

13. Sewage sickness is a form of
   a) Water pollution
   c) Land pollution
   b) Air pollution
   d) Light pollution

14. Sodium is usually estimated by which of the following analytical technique?
   a) Flame Photometry
   b) Coulometry
   c) High pressure liquid
   d) Chromatography

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15. Poorly nourished lakes are known as
   a) Oligotrophic  
   b) Eutrophic  
   c) Mesotrophic  
   d) Xerographic

16. Highest level of biotic interaction is
   a) Mutualism  
   b) Predation  
   c) Parasitism  
   d) Amensalism

17. Group of individuals of the same species that share common attributes is called
   a) Community  
   b) Population  
   c) Ecotype  
   d) Society
18. Acid rain is caused by
   a) CO and CO$_2$
   c) SO$_2$ and NO$_2$

   What are the components of acid rain?
   a) CO  b) SO$_2$
   c) CO$_2$  d) NO$_2$

19. Marine pollution of the ocean is due to
   a) Oil spills
   b) Washing of cargo ships
   c) Disposal of hazardous waste
   d) All the above

20. The chemical that is used to ripen mangoes is
   a) Calcium sulphide
   c) Calcium carbonate

   Which chemical is used to ripen mangoes?
   a) CaS  b) CaC
   c) CaO  d) CaCO$_3$
21. Biotic environment includes
   a) Producers
   b) Consumers
   c) Decomposers
   d) All the above

22. Chicken gunya is transmitted by
   a) Culex
   b) Aedes
   c) Anopheles
   d) Housefly

23. In our country, Vana Mahotsav Day is observed on
   a) Second of October
   b) First of December
   c) Tenth of August
   d) First of July

24. Which one of the following is not a primary contributor to the green house effect?
   a) Carbon dioxide
   b) Carbon monoxide
   c) Chlorofluorocarbons
   d) Nitrous oxide

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25. Medicine of quinine is provided by
   a) Eucalyptus plant
   c) Cinchona plant
   b) Aconite plant
   d) Money plant

26. 71% of earth surface is covered with
   a) Land
   c) Water
   b) Air
   d) Coal

27. Which combination of the following elements constitutes a major portion of earth crust?
   a) Oxygen and Silicon
   c) Silicon and Iron
   b) Oxygen and Iron
   d) Aluminium and Iron

28. The least preferred technique in the disposal of municipal solid waste is
   a) Incineration
   c) Landfilling
   b) Composting
   d) Bricketting
29. Minamata episode was caused by which heavy metal?
   a) Calcium  b) Mercury  c) Lead  d) Arsenic

30. The First Environmental Law in India was enacted in
   a) 1947  b) 1950  c) 1972  d) 1982

31. A device fitted to the exhaust system petrol driven motor vehicle to reduce emissions of pollutants is called as
   a) Conversion System  b) Conversion Kit  c) Catalytic Converter  d) Catalytic Box

32. The maximum permissible level of BOD (mg/l) in waste water that is let into river is
   a) 20  b) 30  c) 40  d) 10
33. Which one of the following sequence represents increasing order of toxicity of metals?

a) Ca, Zn, Cd, Mn  
b) Ca, Mn, Zn, Cd  
c) Zn, Mn, Cd, Ca  
d) Mn, Cd, Zn, Ca

34. The term environment refers to

a) Total set of circumstances  
b) Hydrosphere  
c) Atmosphere  
d) Biosphere

35. Climate change issue is due to increase of ________ gas in the atmosphere.

a) Oxygen  
b) Ozone  
c) CO  
d) CO₂

36. Biomass energy refers to

a) Renewable  
b) Non renewable  
c) Renewable and alternative  
d) Renewable, alternative and ecofriendly

SPACE FOR ROUGH WORK
37. Sacred grooves are of
   a) Agricultural importance
   b) Religious importance
   c) Economic importance
   d) Industrial importance

38. Fluoride is harmful at concentration exceeding ______ mg/l in water.
   a) 0.9      b) 1.5      c) 0.5
   d) 0.4

39. Algal blooms appear in water due to
   a) High pesticides
   b) Nutrient enrichment
   c) More silt
   d) Industrial effluent

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40. GMOs are
   a) Genetically Modified Organisms
   b) Genetically Mediated Organisms
   c) Genetic Model Organisms
   d) Genetically Model Organisms

41. ___________ is not responsible for ozone depletion.
   a) Chlorofluorocarbons
   b) Lead
   c) Fluorine
   d) Chlorine

42. _______ zone, is the deep water zone containing only heterotrophs.
   a) Profoundal
   b) Littoral
   c) Sub littoral zone
   d) None of the above
43. The space between the soil particles and soil organisms is called
   a) Pore space
   b) Pore size
   c) Particles
   d) None of the above

44. The instrument used to measure relative humidity is
   a) Hygrometer
   b) Hydrometer
   c) Barometer
   d) Thermometer

45. Black soils are black in color owing to a high content of
   a) Humus
   b) Sodium
   c) Potassium
   d) Copper
46. Which one of the following does not produce \( \text{SO}_2 \) in indoor environment?

a) Fossil wood  
b) Fire proofing using asbestos  
c) Cooking, smoking, vacuuming  
d) Kerosene space heaters

47. The Stockholm Conference of United Nations was held in the year

a) 1968  
b) 1969  
c) 1971  
d) 1972

48. Which gas is mainly responsible for the Green House effect?

a) Ozone  
b) Oxygen  
c) \( \text{CO}_2 \)  
d) \( \text{CO} \)

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SPACE FOR ROUGH WORK

A
49. Symbiosis is expressed by
   a) Soil  
   b) Fungi  
   c) Lichens  
   d) Virus

50. Largest ecosystems of the world are
   a) Grassland  
   b) Great lakes  
   c) Forests  
   d) Oceans

51. Acid rains is any rain with pH
   a) Below 5.6  
   b) Above 5.6 and below 6.9  
   c) Below 8.0  
   d) Below 7.0

52. The author of Silent Spring
   a) Jeffrey Archer  
   b) Rachel Carson  
   c) E. P. Odum  
   d) Sydney Sheldon

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SPACE FOR ROUGH WORK
53. The thickness of the ozone layer is measured using unit of
   a) Newton  
   b) Joule
   c) Dobson  
   d) Decibel

54. Which one of the following is a non persistent pesticide ?
   a) Chlordane  
   b) Dieldrin
   c) Malathion  
   d) Aldrin

55. Chipko Movement was held in
   a) Uttar Pradesh  
   b) Assam
   c) Karnataka  
   d) Kerala

56. London Smog occurred in the year
   a) 1952  
   b) 1986
   c) 1962  
   d) 1972
57. Chlorine added to water acts as a
   a) Disinfectant
   b) Absorbent
   c) Coagulant
   d) None of the above

58. The United Nations Conference on human environment was organized at
   a) Rio de Janiero
   b) Paris
   c) Stockholm
   d) New Delhi

59. ________ gives an empirical value to water quality and is a parameter for the organic matter present in water.
   a) BOD
   b) COD
   c) DO
   d) Hardness
60. Ozone is a
   a) Primary pollutant  
   c) Hydrocarbon  
   b) Secondary pollutant  
   d) PAN  

61. High volume air sampler is used to monitor
   a) CO  
   c) SPM  
   b) CO₂  
   d) Hydrocarbon  

62. Which of the following is an endemic species found in Western Ghats?
   a) Marsh Mongoose  
   c) Brown Palm civet  
   b) Indian Rhinoceros  
   d) Flying Squirrel  

63. The mean temperature of the earth is approximately
   a) 10°C  
   c) 20°C  
   b) 15°C  
   d) 29°C
64. Which of the following is a green house gas?
   a) Nitrogen  
   b) Methane
   c) Oxygen  
   d) Sulphur dioxide

65. Which of the following is not a fossil fuel?
   a) Coal  
   b) Wood
   c) Petrol  
   d) LPG

66. The coldest region of the atmosphere is
   a) Troposphere  
   b) Stratosphere
   c) Mesosphere  
   d) Thermosphere

67. Environmental planning organization is
   a) ICAR  
   b) NEERI
   c) NCO  
   d) NPO

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68. The Silent Valley is a
a) Place in Himachal Pradesh
b) Densely forested valley in Palghat district of North Kerala
c) Valley in Garhwal Himalayan region
d) Valley in Shivalik range

69. Richter scale is used to measure
a) Velocity of light
b) Intensity of sound
c) Amplitude of seismic waves
d) Wind velocity

70. A common disinfectant used in village wells is
a) Ozone gas
b) Potassium permanganate
c) Iodine and bromine
d) Free chlorine