



DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

Booklet Serial No. **30897**

Test Booklet Series

**FIELD INSPECTOR
OMR Examination - 2023**

A

Time Allowed: 120 Minutes

Maximum Marks: 120

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET **DOES NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. Please note that it is the candidate's responsibility to encode and fill in the Roll Number, Booklet Serial No. and Test Booklet Series Code A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer /Response Sheet. Any omission/discrepancy will render the Response Sheet liable for rejection.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT write anything else** on the Test Booklet.

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4. This Test booklet contains **120** items (questions). Each item comprises of four responses (answers). You will select the response which you want to mark on the Answer Sheet/Response Sheet. In case you feel that there is more than one correct response, mark the response which you consider the appropriate. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer /Response Sheet provided. See directions in the Response Sheet.
6. **All** items carry equal marks.
7. After you have completed filling in all your responses on the Response Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer /Response Sheet**. You are permitted to take away with you the Test Booklet and **Candidate's Copy of the Response Sheet**.
8. Sheets for rough work are appended in the Test Booklet at the end.
9. While writing Centre Code and Roll No. on the top of the Answer Sheet/Response Sheet in appropriate boxes use "**ONLY BLUE/BLACK BALL POINT PEN**".
10. **Penalty for wrong answers:**

THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY THE CANDIDATE IN THE WRITTEN TEST (OBJECTIVE TYPE QUESTIONS PAPERS).

- (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, $(\frac{1}{4})$ of the marks assigned to that question will be deducted as penalty.
- (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above for that question.
- (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be **no penalty** for that question.

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(Set - A)



(Set - A)

(2)

- 1.** Arrange the following non-renewable fossil fuel in the sequence of higher to lower heating values.
1. Coal
 2. Hydrogen
 3. Petroleum.
 4. Natural Gas
- A) 1,3,4,2
B) 3,4,2,1
C) 2,3,1,4
D) 3,2,4,1
- 2.** Consider the following statements:
- a) Earth Day is celebrated on March-22.
 - b) Ammonia is the form of carbonaceous impurity.
 - c) Potable water is a mineral water.
 - d) World Water Day is celebrated on March-22.
- Which of the above statements is/are correct?**
- A) a and c
 - B) b and d
 - C) ONLY-d
 - D) ONLY-a
- 3.** Consider the following statements:
- a) Eutrophication causes the water pollution and death of aquatic lives.
 - b) Phosphorous and Nitrogen causes the eutrophication.
 - c) Smog causes the eutrophication.
 - d) Water Hyacinth is the source of water pollution.
- Which of the above statements is/are correct?**
- A) a and d
 - B) a and b
 - C) b and c
 - D) b and d

4. Which among the following is abiotic?
- A) Bacteria
 - B) Fungi
 - C) Air
 - D) Plants
5. Consider the following pairs:
- | | |
|----------------------|-------------------------|
| a. NGT | 1. Ferroin indicator |
| b. Blue baby disease | 2. Nitric acid |
| c. CO ₂ | 3. Excessive Nitrates |
| d. HNO ₃ | 4. Peroxyacetyl nitrate |
- Which of the above pairs are correctly matched?
- A) b-3, d-2
 - B) a-2, b-3
 - C) a-4, b-1
 - D) c-1, d-2
6. Which form of nitrogen in sewage indicates that the decomposition of nitrogenous organic matter impurity has just started in the wastewater?
- A) Nitrites
 - B) Albuminoidal nitrogen
 - C) Ammonia
 - D) Nitrates
7. A sewage of 3 % diluted sample is incubated for 5 days at 20 deg.C and D.O. depletion found to be 3 mg/lit. Estimate BOD of sewage after 5 days.
- A) 100 mg/lit
 - B) 180 mg/lit
 - C) 200 mg/lit
 - D) 280 mg/lit

8. Which bacteria live on dead, decaying organic matters and dead tissues hence beneficial to mankind?
- A) Parasitic Bacteria
 - B) Saprophytic Bacteria
 - C) Pathogenic Bacteria
 - D) E-coli bacteria
9. Which among the following is attached growth process?
- A) Rotating Biological Contactors
 - B) Aerated Lagoons
 - C) Activated Sludge Process
 - D) Oxidation Ponds
10. Consider the following statements:
- a) 7.0 pH value has most efficient disinfection by chlorination.
 - b) 7.0 pH is low alkaline.
 - c) 7.0 pH is high acidic.
 - d) 14 pH is high alkaline.
- Which of the above statements is/are correct?**
- A) c and d
 - B) a and c
 - C) a and d
 - D) ONLY-d

11. Which of the following type of wastewater treatment process is used for treating wastewater or industrial wastewater using aeration and biological flocs?
- A) Biological aeration
 - B) Anaerobic digestion
 - C) Activated sludge process
 - D) Aeration
12. Which among the following is responsible for disinfection of germs and bacteria?
- A) KCl
 - B) HOCl
 - C) HCl
 - D) HNO₃
13. Which among the following causes turbidity in water?
- A) Chlorides
 - B) Total dissolved solids
 - C) Bacteria
 - D) Suspended Solids
14. Which among the following is NOT a physical characteristic?
- A) Color
 - B) pH
 - C) Odour
 - D) Temperature

15. What is the acceptable range for threshold odour number?

- A) 1 - 3 threshold odour number
- B) 5 - 8 threshold odour number
- C) 10 - 15 threshold odour number
- D) 15 - 25 threshold odour number

16. The concentration of $[OH^-]$ ion in a water sample is measured as 17 mg/L at 25 degrees Celsius. What is the pH of water sample?

- A) 10
- B) 11
- C) 12
- D) 13

17. What is full form of EIA?

- A) Environmental Impact Analyzer
- B) Environmental Impact Assessment
- C) Environmental Investigation Assembly
- D) Environmental Investigation and Analysis

18. Consider the following pairs:

- | | |
|-------------------|-----------------------|
| a. Gravity filter | 1. Inorganic material |
| b. Grit | 2. Slow sand filter |
| c. Carbohydrate | 3. Pressure filter |
| d. Viscosity | 4. kVA |

Which of the above pairs are correctly matched?

- A) a-2, b-1
- B) c-1, a-3
- C) d-1, a-2
- D) a-3, b-4

19. Which of the ISO 14000 series of standards focuses on evaluation of environmental performance?
- A) 14010
 - B) 14020
 - C) 14050
 - D) 14031
20. When was the Factoriesactenacted in India?
- A) 1966
 - B) 1986
 - C) 1948
 - D) 1981
21. Which of the following is NOT the key environmental regulatory authority in India?
- A) Ministry of Environment, Forests and Climate change (MoEFCC)
 - B) Central Pollution Control Board (CPCB)
 - C) State Pollution Control Board (SPCB)
 - D) Department of Environment (DOE)
22. Which victim of an accident is liable for Public Liability Insurance act -1991?
- A) Handling hazardous substances
 - B) Natural disaster
 - C) Road accidents
 - D) Loss to the properties due to communal rides
23. Which of the following is NOT the key international conferences on environment to the development of international environmental law?
- A) Stockholm Conference,1972
 - B) Rio Conference 1992
 - C) World summit on sustainable Development (WSSD) 2002
 - D) World Environment Conference (WEC)1988

24. Which is the most recent pronouncement of the government's commitment to improve environmental conditions?

- A) National Environmental Policy
- B) National Water Policy
- C) Environment Act
- D) Air Policy

25. Consider the following pairs:

- | | |
|----------------------|---------------------------------|
| a. Unit of (BOD/COD) | 1. National Green Tribunal |
| b. NGT | 2. Unitless |
| c. PAN | 3. m ³ /s |
| d. Conductivity | 4. National Geographic Tracking |

Which of the above pairs are correctly matched?

- A) a-2, b-4
- B) c-1, b-3
- C) d-4, a-1, b-3
- D) a-2, b-1

26. Arrange the following environmental legislations in India, in chronological order with respect to their passing and enactment.

1. The air (Prevention and control of Pollution) Act
2. Forest conservation Act
3. Wildlife protection Act
4. The water (Prevention and control of Pollution) Act

- A) 1,2,3,4
- B) 3,4,2,1
- C) 4,3,2,1
- D) 3,2,4,1

27. Arrange the following environmental movements in chronological order.

1. Narmada Bachao Andolan
 2. Silent Valley movement
 3. Chipko movement
 4. Appiko movement
- A) 1,2,3,4
B) 3,4,2,1
C) 4,3,2,1
D) 3,2,4,1

28. Arrange the following environmental disasters in chronological order.

1. Niger - Delta Oil Pollution
 2. India - Bhopal Cyanide Gas Leak
 3. Italy - Seveso Dioxin Cloud
 4. Romania - Cyanide Spill
- A) 1,3,2,4
B) 3,4,2,1
C) 4,3,2,1
D) 3,2,4,1

29. What is the shape of warning sign?

- A) Triangular
B) Square
C) Rectangular
D) Sphere

30. What is Fire extinguisher?

- A) Passive Fire protection system
B) Active Fire protection system
C) Main electric panel unit
D) General Hazards protection

31. What is acceptable limit of Lead in drinking water?

- A) 5 mg/L
- B) 0.6 mg/L
- C) 0.05 mg/L
- D) 0.01 mg/L

32. Consider the following statements:

- a) The smell of hydrogen sulphide is like a rotten egg in wastewater.
- b) Presence of algae in water increases alkalinity of water.
- c) Alkali salts are used to balance pH of acidic water.
- d) Hydrogen sulphide is odourless gas.

Which of the above statements is/are correct?

- A) a and c
- B) a, b and c
- C) b and c
- D) ONLY- d

33. Which colour of AQI indicates good air condition?

- A) Green
- B) Red
- C) Orange
- D) Yellow

34. When chlorine reacts with organic matters what does it form?

- A) Chloramine
- B) Chloroscope
- C) DBP
- D) Chloro-organic compound

35. Consider the following pairs:

- | | |
|----------------------------|------------|
| a. $H^+ = OH^-$ | 1. pH = 04 |
| b. Total solids experiment | 2. 05 Hrs |
| c. Acidic nature | 3. 30min |
| d. Potable water | 4. pH = 07 |

Which of the above pairs are correctly matched?

- A) a-4, d-1
- B) a-4, c-1
- C) a-1, c-4
- D) c-1, b-3

36. Where Whatman's filter paper is used?

- A) To determine residual chlorine content
- B) To determine total suspended solids
- C) To determine chloride content
- D) To determine pH

37. Consider the following statements:

- a) Bacilli bacteria has a rod-shaped structure.
- b) Coccii bacteria has a rod-shaped structure.
- c) Spirilla bacteria has a rod-shaped structure.

Which of the above statements is/are correct?

- A) ONLY- a
- B) ONLY- b
- C) a and b
- D) b and c

38. Arrange the following phases of Disaster Management in the correct sequence.

- 1. Mitigation
- 2. Response
- 3. Recovery
- 4. Preparedness

- A) 1,2,3,4
- B) 1,4,2,3
- C) 4,2,3,1
- D) 4,3,1,2

39. What is the removal efficiency of high-rate trickling filter?

- A) 85 %
- B) 75 %
- C) 99 %
- D) 65 %

40. What is plankton?

- A) Microscopic plants
- B) Bacteria
- C) Virus
- D) Cillia

41. Which of the following are Partners of Ramsar Convention?

- 1. International Union for conservation of Nature
- 2. Birdlife International
- 3. International Water Management Institute
- 4. Wildfowl and Wetlands Trust

Select the correct option:

- A) 1,2 and 3 only
- B) 2,3 and 4 only
- C) 1,2 and 4 only
- D) 1,2, 3 and 4

42. In constitution of central board for prevention and control of water pollution how many persons are nominated by government, which represents the companies or corporation owned, controlled or managed by central government.

- A) 1
- B) 2
- C) 3
- D) 5

43. EIA of mining activities involve impact assessment on

1. Geological Environment
2. Biological Environment
3. Aerial Environment

Codes:

- A) 1 only
- B) 2 and 3 only
- C) 1 and 3 only
- D) All of the above

44. For determining the hardness in water sample, which among the following is used as a titrant:

- A) EDTA
- B) NaOH
- C) Sodium Thiosulphate
- D) $MgSO_4$

45. Coning is observed when:

- A) Inversion above the ground surface
- B) Unstable atmosphere
- C) Neutrally Stable atmosphere
- D) Stable atmosphere

46. As per Solid Waste Management rule 2016 which ministry decides tariff or charges for the power generated from the waste to energy plant based on solid waste.

- A) Ministry of Environment, Forest and Climate change
- B) Ministry of New and Renewable Energy
- C) Ministry of Power
- D) Ministry of Earth Sciences

- 47.** What is the principal aim of the National Clean Air Programme (NCAP)?
1. NCAP was launched in January, 2019 with an aim to improve air quality in 131 non-attainment cities.
 2. To attain a 20-30% reduction solely in PM_{2.5} levels.

Which of the statements given above is/are correct?

- A) 1 only
- B) 2 only
- C) Both 1 and 2
- D) Neither 1 nor 2

- 48.** The Global Environment Outlook report is published by:
- A) WWF
 - B) Global Tiger Forum
 - C) UNEP
 - D) WHO

- 49.** Criteria for plantation at landfill sites should be:
1. Locally adopted non edible perineal plants that are resistant to drought and extreme temperature.
 2. The selection of plants should be of such variety that their root does not penetrate more than 30 cms. This condition shall apply till landfill is stabilized.
 3. Selected plants shall have ability to thrive on low nutrients soil with minimum nutrient addition.
 4. Plantation to be made in sufficient density to minimize soil erosion.
- A) 1, 2 and 3
 - B) 1 and 2
 - C) 2 and 3
 - D) 1, 2, 3 and 4

- 50.** Which state of chromium is more toxic?
- A) Cr⁴⁺
 - B) Cr³⁺
 - C) Cr⁵⁺
 - D) Cr⁶⁺

51. Consider the following statements:

1. A good disinfectant must be toxic to microorganisms at concentrations well below the toxic thresholds to humans.
2. It should have fast rate of killing.
3. Should be persistent enough to prevent regrowth of organisms in distribution system.
4. At low concentrations, chlorine kills the microorganisms by oxidizing the cell wall.

Choose the correct:

- A) 1 and 2 only
- B) 1, 2 and 4 only
- C) 1, 2 and 3 only
- D) 1, 2, 3 and 4 only

52. Regarding the Ozone Layer, consider the following statements:

1. 90% of ozone occurs naturally in the Stratosphere.
2. Methyl bromide is an Ozone-Depleting Substance (ODS).

Which of the statements given above is/are correct?

- A) 1 only
- B) 2 only
- C) Both 1 and 2
- D) Neither 1 nor 2

53. GRIHA is associated with which of the following?

- A) Hybrid vehicles
- B) Green buildings
- C) Air pollution prevention
- D) Tidal energy

54. Permissible limit of Total Suspended Solids (mg/L) for disposal in surface waters from Sugar industry is:

- A) 100
- B) 30
- C) 250
- D) 200

55. Which method is used for the analysis of NO₂ in ambient air?
- A) UV Fluorescence
 - B) Chemiluminescence
 - C) Beta attenuation
 - D) Non- Dispersive Infrared (NDIR)
56. Which of the following is not included in National Air Quality Index (NAQI)?
- A) Carbon Dioxide
 - B) Ozone
 - C) Sulphur dioxide
 - D) Nitrogen dioxide
57. With reference to the Montreux Protocol which of the statement is correct?
- A) It is a register of wetland sites where changes in ecological character have occurred, are occurring or are likely to occur as result of human intervention.
 - B) It is given the status of World Heritage
 - C) No wetlands in India are included in the Record
 - D) The country in which the wetland is located should enact a law to prohibit any human activity within 5 kms from the edge of the wetland
58. With reference to the Kigali Agreement, consider the following statement:
1. It was introduced as an amendment to the Montreal Protocol
 2. It aims for the phase-down of HFCs
 3. It came into force in September 2019
- Which of the following are correct?**
- A) 1 and 3 only
 - B) 1 and 2 only
 - C) 2 and 3 only
 - D) All of the above

59. Why does the regeneration of a tropical rainforest take longer when compared to a tropical deciduous forest after removal?
- Propagules of trees in a rainforest have poor viability
 - Because of less moisture in tropics
 - Presence of exotic species
 - Soil of rainforest is deficient in nutrients
60. Which of the following is /are have been provided for in the Wildlife protection act, 1972?
- National parks
 - Wildlife sanctuaries
 - Biosphere reserves
- Select the correct answer:
- 1 only
 - 1 and 2 only
 - 1 and 3 only
 - 2 and 3 only
61. Imhoff tank is used for:
- Advanced wastewater treatment
 - Demineralization
 - Distillation
 - Settling and sedimentation
62. The layers formed by thermal stratification in lakes are:
- Epilimnion, Midlimnion, Hypolimnion
 - Epilimnion, Oligolimnion, Hypolimnion
 - Epilimnion, Dystrolimnion, Hypolimnion
 - Epilimnion, Thermocline, Hypolimnion

63. Co-generation or CHP refers to:
- A) Simultaneous use of two fuels for producing energy
 - B) Production and use of two forms of energy from one fuel
 - C) Power generation from both renewable and non-renewable sources
 - D) Integration of distribution grids with renewable sources of energy.
64. Annual average for air pollution means total of measurements in a year.
- A) 104 (twice weekly)
 - B) 365 (daily)
 - C) 102 (twice weekly)
 - D) 116 (thrice-weekly)
65. Where is the headquarters of UNEP located?
- A) Vienna
 - B) Johannesburg
 - C) Nairobi
 - D) Sweden
66. What is the permissible limit of day time industrial noise as recommended by WHO?
- A) 80 dB
 - B) 75 dB
 - C) 90 dB
 - D) 76 dB
67. WHO guideline values for ambient air concentration of $PM_{2.5}$ and PM_{10} in annual average scale, in $\mu\text{g}/\text{m}^3$ are respectively:
- A) 10, 20
 - B) 05, 15
 - C) 15, 15
 - D) 10, 15

68. Which amendment explicitly incorporated Article 48-A and 51-A (g) into the Constitution?
- A) 52nd Amendment Act, 1986
 - B) 42nd Amendment Act, 1976
 - C) 1st Amendment Act, 1952
 - D) 32nd Amendment Act, 1972
69. When was National Green Tribunal established in India?
- A) 1994
 - B) 2006
 - C) 2010
 - D) 2018
70. Noise pollution has been inserted as pollution in the Air Act in:
- A) 1982
 - B) 1987
 - C) 1981
 - D) 2001
71. Municipal sewage sludge can be used as a fertilizer but may be unsuitable because of the presence of:
- A) Nitrates
 - B) Phosphates
 - C) Heavy metals
 - D) Organic matter
72. Which of the following is not the component of photochemical smog?
- A) Acrolein
 - B) Peroxyacetyl nitrate
 - C) Chlorofluorocarbon
 - D) Formaldehyde

73. Which of the following is **NOT** a waterborne disease?
- A) Schistosomiasis
 - B) Cholera
 - C) Dysentery
 - D) Hepatitis
74. Which of the following is **NOT** included during EIA?
- A) A detailed assessment of the planned project and selected alternative compared to the baseline conditions.
 - B) Qualitative description measuring higher, medium and low impacts
 - C) Quantitative description measuring physical values of water withdrawal sewage produced and pollutants released.
 - D) All the data collection, analysis and developed plans summarized together in a well-structured and concise document.
75. Given below are two statements. One labelled as Assertion (A) and other labelled as Reason (R).
- Assertion (A):** Strategic Environmental Assessment (SEA) is a more advanced tool in environmental management.
- Reason (R):** SEA is applicable at the level of policy, planning and programs.
- Choose the correct answer from the options given below:**
- A) Both (A) and (R) are true and (R) is the correct explanation of (A)
 - B) Both (A) and (R) are true and (R) is not the correct explanation of (A)
 - C) (A) is true, but (R) is false
 - D) (A) is false, but (R) is true
76. According to Solid Waste Management Rules 2016, a landfill site should be how many meters away from a river?
- A) 100 m
 - B) 200 m
 - C) 500 m
 - D) 1000 m

77. Which one of the categories of development does not require an Environmental Impact Assessment (EIA) report?
- A) Category A projects
 - B) Category B2 projects
 - C) Category B1 projects
 - D) Category B1 and B2 projects
78. In nitrogen cycle, elemental nitrogen returned to the atmosphere by the following process:
- A) Nitrogen fixing bacteria
 - B) Nitrogen fixation by blue green algae
 - C) Nitrification process
 - D) Denitrification process
79. Match the following with respect to plastic packaging:
- | List 1 | List 2 |
|-----------------|---|
| 1. Category I | i. Multilayered plastic packaging |
| 2. Category II | ii. Carry bags of compostable plastic |
| 3. Category III | iii. Rigid plastic packaging |
| 4. Category IV | iv. Flexible plastic packaging single or multilayer |
- Select the correct option:**
- A) 1 (i), 2 (iv), 3 (iii), 4 (ii)
 - B) 1 (iii), 2 (iv), 3 (i), 4 (ii)
 - C) 1 (iv), 2 (i), 3 (iii), 4 (ii)
 - D) 1 (iv), 2 (iii), 3 (ii), 4 (i)
80. Which method is commonly employed by the Environmental Protection Agency (EPA) for estimating phosphorus levels in water samples?
- A) Titration with potassium permanganate
 - B) Gravimetric analysis
 - C) Spectrophotometric analysis using the ascorbic acid method
 - D) Flame atomic absorption spectrometry (FAAS)
81. Smog is the mixture of
- A) Ozone and smoke
 - B) Vehicular smoke
 - C) Smoke and fog
 - D) Fog and ozone

- 82.** The "Ozone Hole" is primarily caused by the release of which type of chemicals into the atmosphere?
- A) Sulfur dioxide
 - B) Nitrogen oxides
 - C) Greenhouse gases
 - D) Chlorofluorocarbons (CFCs)
- 83.** The term "Biodiversity" refers to the _____
- A) Variety of living organisms in a specific region
 - B) Level of pollution in an area
 - C) Amount of renewable resources available
 - D) Total human population in an ecosystem
- 84.** Acid rain is caused by the presence of which pollutants in the atmosphere?
- A) Carbon dioxide and sulfur dioxide
 - B) Nitrogen oxides and ozone
 - C) Carbon monoxide and particulate matter
 - D) Sulfur dioxide and nitrogen oxides
- 85.** An example of a health hazard associated with environmental pollution is _____
- A) Decreased levels of carbon monoxide in the air
 - B) Increased availability of clean drinking water
 - C) Respiratory diseases caused by air pollution
 - D) Reduced exposure to UV radiation
- 86.** Which of the following diseases is majorly caused due to ozone depletion?
- A) Lung cancer
 - B) Skin cancer
 - C) Tuberculosis
 - D) Brain stroke

87. The estimated design period for sewage treatment facility typically ranges from _____
- A) 5-10 years
 - B) 10-20 years
 - C) 20-30 years
 - D) 1-5 years
88. How many types of biological oxygen demand (BOD) is present in water?
- A) 2
 - B) 3
 - C) 4
 - D) 5
89. If the area of reactor is 0.25m^2 through which water is flowing at a velocity of 10m/s , what is the flowrate?
- A) $25 \text{ m}^3/\text{s}$
 - B) $2.5 \text{ m}^3/\text{s}$
 - C) 25 m^3
 - D) $0.025 \text{ m}^3/\text{s}$
90. Which types of pumps are widely used in wastewater plant for flow and pressure?
- A) Submersible pumps
 - B) Centrifugal pumps
 - C) Pneumatic pumps
 - D) Diaphragm pumps
91. The unit of COD present in wastewater is _____
- A) Unitless
 - B) mg/L
 - C) NTU
 - D) mg

92. The BOD (Biochemical Oxygen Demand) of a wastewater is a measure of
- A) Number of suspended solids in the wastewater
 - B) Number of dissolved solids in the wastewater
 - C) Amount of oxygen required by bacteria to decompose the organic matter in the wastewater
 - D) Amount of bacteria in the wastewater
93. The nitrification process is controlled by temperature and
- A) Solids Retention time (SRT)
 - B) Sludge settling rate
 - C) Phosphorus levels
 - D) Hydraulic loading
94. A town with a population of 60,000 has a daily sewage discharge of 1000 m^3 . What is the per capita sewage discharge for the town?
- A) $0.016 \text{ m}^3/\text{day}$
 - B) $16 \text{ m}^3/\text{day}$
 - C) $160 \text{ m}^3/\text{day}$
 - D) $10 \text{ m}^3/\text{day}$
95. Which waste characteristic is common in the effluent from the cement industry?
- A) High oil content
 - B) High levels of heavy metals
 - C) Low pH
 - D) High biological oxygen demand (BOD)
96. What is a significant advantage of a membrane batch reactor over conventional treatment methods?
- A) Lower energy consumption
 - B) Enhanced removal of pathogens and suspended solids
 - C) No need for membranes
 - D) Simplicity of operation

97. A sequencing batch reactor (SBR) is operated in a fill-and-draw cycle. The cycle time is 8 hours. The aeration time is 4 hours. What is the fraction of the cycle time that the SBR is aerated?
- A) 0.1
 - B) 0.5
 - C) 0.3
 - D) 0.2
98. The activated sludge process is a biological wastewater treatment method that primarily removes:
- A) Nutrients like phosphorus and nitrogen
 - B) Suspended solids and organic matter
 - C) Heavy metals
 - D) Pathogenic bacteria
99. What percentage of solids does wastewater usually have?
- A) 0.5%
 - B) 0.1%
 - C) 10%
 - D) 1%
100. Which of the following is NOT a unit operation in wastewater treatment?
- A) Disinfection
 - B) Aeration
 - C) Activated sludge process
 - D) Equalization
101. Which wastewater treatment process relies on the growth of microorganisms in suspended sludge to treat organic matter?
- A) Anaerobic digestion
 - B) Coagulation
 - C) Filtration
 - D) Adsorption

- 102.** Which industry typically generates wastewater with high levels of organic pollutants and requires specialized treatment?
- A) Textile
 - B) Tannery
 - C) Dairy
 - D) Cement
- 103.** What type of microorganisms are predominantly active in a UASB (Upflow Anaerobic Sludge Blanket) reactor?
- A) Aerobic microorganisms
 - B) Anaerobic microorganisms
 - C) Facultative microorganisms
 - D) Photosynthetic microorganisms
- 104.** Which of the following is not a primary component in an Environmental Impact Assessment (EIA) process?
- A) Preparing and Environmental Statement
 - B) Impact Assessment
 - C) Adoption of Mitigation Measure
 - D) Public Participation
- 105.** Which impact methodology makes use of a remote sensing approach in an Environmental Impact Assessment (EIA) process?
- A) Checklists
 - B) Matrix Method
 - C) Network Approach
 - D) Overlay technique
- 106.** Defining the Roles and Responsibilities comes under which stage of an Environmental Management Plan (EMP)?
- A) Scoping
 - B) Emergency Response Plan
 - C) Environmental Management Strategies
 - D) Monitoring and Reporting

- 107.** Which international agreement, signed in 1992, emphasizes the importance of conducting EIAs for projects that may have transboundary environmental effects?
- A) Rio Declaration
 - B) Kyoto Protocol
 - C) Basel Convention
 - D) Montreal Protocol
- 108.** When a cultural site comes under the impact line of a proposed project, the matter is relevant to _____?
- A) Socio-cultural Index
 - B) Biodiversity index
 - C) Water quality Index
 - D) All of these
- 109.** Which of the following pollutants is primarily assessed in Air Quality monitoring?
- A) Smog
 - B) Dust
 - C) Sulphates
 - D) Green House Gas
- 110.** SEA stands for _____
- A) Systematic Environmental Assessment
 - B) Strategic Environmental Assessment
 - C) Strategic Environmental Analysis
 - D) All are correct.
- 111.** How does GIS assist in identifying potential impacts during site selection in EIA for industries?
- A) Integrating land use data to locate sensitive habitats and ecosystems.
 - B) By forecasting variations in global atmospheric pressure.
 - C) Analyzing historical population growth rates.
 - D) Predicting quarterly earnings for competing industries

112. According to the EIA Notification 2006, what is the maximum duration for which environmental clearance for a project under Category A is valid?

- A) 2 years
- B) 7 years
- C) 5 years
- D) 10 years

113. According to the Environmental Impact Assessment (EIA) Notification 2006, what is the minimum distance from the high tide line that should be maintained for building new structures in the Coastal Regulation Zone (CRZ)-I?

- A) 100 meters
- B) 200 meters
- C) 500 meters
- D) 1 kilometer

114. What is the maximum penalty, in terms of imprisonment, specified in The Environment (Protection) Act, 1986, for offenses related to environmental pollution?

- A) 2 years
- B) 5 years
- C) 7 years
- D) 10 years

115. The Water (Prevention and Control of Pollution) Act, 1974, was amended in 1988 to include a new chapter specifically dealing with _____.

- A) Noise pollution in water bodies
- B) Conservation of coastal areas
- C) Protection of marine biodiversity
- D) Pollution from agricultural activities

- 116.** Under The Air (Prevention and Control of Pollution) Act, 1981, which term refers to the maximum amount of pollutants that a particular source is allowed to emit over a specific period?
- A) Ambient air quality standard
 - B) Emission limit
 - C) Air quality index
 - D) Permissible concentration
- 117.** What is the primary goal of a disaster management plan?
- A) Achieving zero environmental impact
 - B) Minimizing the impact of disaster on human life and property
 - C) Promoting a company's products during a crisis
 - D) Increasing shareholder value
- 118.** Safety audits in industrial units primarily focus on _____
- A) Evaluating the company's marketing strategies
 - B) Ensuring compliance with safety regulations and protocols
 - C) Analyzing employee satisfaction with working conditions
 - D) Reviewing the company's financial health
- 119.** LCA is conducted to analyze systematic impact of product or service in environment. LCA stands for _____
- A) Life cycle analysis
 - B) Life cycle assessment
 - C) Linear cycle analysis
 - D) None of these
- 120.** Which of the following could be considered as a man-made disaster?
- A) Earthquake
 - B) Volcanic eruption
 - C) Fire
 - D) Erosion
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ROUGH WORK

UGH WORK

HAL

(Set - A)

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