

10P/293/9

Question Booklet No.....

(To be filled up by the candidate by blue / black ball-point pen)

Roll No.

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Roll No. (Write the digits in words).....

Serial No. of Answer Sheet.....

Day and Date.....

(Signature of Invigilator)

INSTRUCTIONS TO CANDIDATES

(Use only **blue/black ball-point pen** in the space above and on both sides of the **Answer Sheet**)

1. Within 10 minutes of the issue of the Question Booklet, check the Question Booklet to ensure that it contains all the pages in correct sequence and that no page/question is missing in case of faulty Question Booklet bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet.
2. Do not bring any loose paper, written or blank, inside the Examination Hall *except the Admit Card without its envelope.*
3. A separate Answer Sheet is given. *It should not be folded or mutilated. A second Answer Sheet shall not be provided. Only the Answer Sheet will be evaluated.*
4. Write your **Roll Number and Serial Number of the Answer Sheet by pen** in the space provided above.
5. **On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, wherever applicable, write the Question Booklet Number and the Set Number in appropriate places.**
6. No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) on OMR sheet and Roll No. and OMR sheet No. on the Question Booklet.
7. Any changes in the aforesaid entries is to be verified by the invigilator, otherwise it will be taken as unfair means.
8. Each question in this Booklet is followed by four alternative answers. **For each question, you are to record the correct option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the Answer Sheet, by pen as mentioned in the guidelines given on the first page of the Answer Sheet.**
9. For each question, darken only one circle on the Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.
10. **Note that the answer once filled in ink cannot be changed.** If you do not wish to attempt a question leave all the circles in the corresponding row blank (such question will be awarded zero marks).
11. For rough work, use the inner back page of the title cover and the blank page at the end of this Booklet.
12. Deposit **both the Question Booklet and the Answer Sheet** at the end of the Test.
13. You are not permitted to leave the Examination Hall until the end of the Test.
14. If a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment as the University may determine and impose on him/her.

[उपर्युक्त निर्देश हिन्दी में अन्तिम आवरण-पृष्ठ पर दिये गए हैं]

Total No. of Printed Pages : 24

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No. of Questions/प्रश्नों की संख्या : 150

Time / समय : $2\frac{1}{2}$ hours/ घण्टे]

[Full Marks / पूर्णांक : 450

Note : (1) Attempt as many questions as you can. Each question carries 3 (Three) marks. **One mark will be deducted for each incorrect answer.** Zero mark will be awarded for each unattempted question.

अधिकाधिक प्रश्नों को हल करने का प्रयत्न करें। प्रत्येक प्रश्न 3 (तीन) अंक का है। प्रत्येक गलत उत्तर के लिए एक अंक काटा जायेगा। प्रत्येक अनुत्तरित प्रश्न का प्राप्तांक शून्य होगा।

(2) If more than one alternative answers seem to be approximate to the correct answer, choose the closest one.

यदि एकाधिक वैकल्पिक उत्तर सही उत्तर के निकट प्रतीत हो, तो निकटतम सही उत्तर दें।

1. Which of the following is a metalloid ?

(1) Sodium (2) Potassium (3) Arsenic (4) Mercury

2. The molar conductivity is maximum for solution of concentration.

(1) 0.001M (2) 0.005M (3) 0.002M (4) 0.006M

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3. Which of the following aqueous solutions will conduct quite well an electric current ?
- (1) Sugar (2) HCl (3) Glycerol (4) Pure water
4. 1 ppm is equal to
- (1) 1 mg/L in water (2) 1 μ g/L in water
(3) 1 g/L in water (4) 1 pg/L in water
5. Pascal (Pa) is a unit of
- (1) Density (2) Concentration (3) Mass (4) Pressure
6. Which of the following elements is most abundant in earth's crust ?
- (1) Iron (2) Aluminium (3) Calcium (4) Sodium
7. Granite is an example of
- (1) Igneous rock (2) Sedimentary rocks
(3) Metamorphic rock (4) Detrital rock
8. Which of the following is not a group of clay minerals ?
- (1) Montmorillonite (2) Illite (3) Dolomite (4) Kaolinite
9. Which of the following represents the most heavily leached soil type ?
- (1) Laterite (2) Podzol (3) Mollisol (4) Aridisol
10. Emissions from volcanic eruptions will cause
- (1) Cooling of earth
(2) Warming of earth
(3) No change in temperature of earth
(4) Cooling-warming cycles on the earth

11. Which of the following is not correct ?
- (1) Proton has a unit charge +1
 - (2) Proton has a mass number 1
 - (3) Electron has a mass number 0
 - (4) Neutron has a unit charge, - 1
12. Which of the following is the latest period in Coenozoic era representing origin of humans ?
- (1) Cretaceous
 - (2) Triassic
 - (3) Tertiary
 - (4) Quaternary
13. Angstrom (\AA) is equal to
- (1) 10^{-6}m
 - (2) 10^{-8}m
 - (3) 10^{-10}m
 - (4) 10^{-12}m
14. Which of the following forms in a graph gives an accurate indication of correlation between two variables ?
- (1) Histogram
 - (2) Pie-chart
 - (3) Regression line
 - (4) Scatter diagram
15. The age of earth is estimated to be
- (1) $4.6 - 4.9 \times 10^6$ yrs
 - (2) $4.6 - 4.9 \times 10^9$ yrs
 - (3) $4.6 - 4.9 \times 10^{10}$ yrs
 - (4) $4.6 - 4.9 \times 10^{12}$ yrs
16. Formation of deep cavities in soil due to running water is known as
- (1) Sheet erosion
 - (2) Rill erosion
 - (3) Gully erosion
 - (4) Slip erosion
17. Which of the following is an important ore of aluminium ?
- (1) Haematite
 - (2) Bauxite
 - (3) Magnetite
 - (4) Lignite

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18. The type of classification of plants and animals based on evolutionary relationship is called
- (1) Natural classification (2) Artificial classification
(3) Phylogenetic classification (4) Phonetic classification
19. The spring tides arises due to forces of moon and sun acting in the same line on every
- (1) Full moon day
(2) New moon day
(3) Full moon day and new moon day
(4) Spring scason
20. The soil formed from the material transported through gravity is called
- (1) Aeolian (2) Colluvial (3) Alluvial (4) Glacial
21. The hottest geographical zone out of the following is
- (1) Torrid zone (2) North temperate zone
(3) South temperate zone (4) Frigid zone
22. The major reservoirs of phosphorus occurs in
- (1) Plant biomass (2) Sedimentary rocks
(3) Agricultural fields (4) Atmosphere
23. The depth of oceans is measured in
- (1) Meters (2) Feet (3) Fathoms (4) Nautical miles
24. Archaeopteryx is a connecting link between
- (1) Fishes and Amphibians (2) Amphibians and Reptiles
(3) Reptiles and Birds (4) Birds and Mammals

25. According to SI system the unit of energy is
(1) Watt (2) Joule (3) Newton (4) Calorie
26. Genetic material in Tobacco Mosaic Virus (TMV) is
(1) RNA (2) DNA (3) Pentose sugar (4) Purines
27. Which of the following are called 'suicide bags' of a cell ?
(1) Lysosomes (2) Ribosomes (3) Liposomes (4) Oxysomes
28. Muramic acid is found in the cell wall of
(1) Flowering plants (2) Gymnosperms
(3) Algae (4) Bacteria
29. Excretory organs of earthworms are called as
(1) Malpighian tubules (2) Contractile vacuoles
(3) Kidneys (4) Nephridia
30. Which of the following is a true fish ?
(1) Starfish (2) Cuttlefish
(3) Catfish (4) Silverfish
31. Life cycle of vascular plants is dominated by
(1) Diploid stage
(2) Haploid stage
(3) Sporophyte stage
(4) Diploid and Sporophyte stage

32. Which of the following statements is not true ?
- (1) Red, brown and green algae are mostly aquatic
 - (2) Bryophytes are non-vascular plants
 - (3) Ferns and horse tails are vascular plants
 - (4) Gymnosperms are the simplest vascular plants
33. Which of the following has radial and bilateral symmetry ?
- (1) Cnidarians
 - (2) Arthropods
 - (3) Echinoderms
 - (4) Molluscs
34. The defining features of viruses are
- (1) DNA core and protein coat
 - (2) Nucleic acid core and protein coat
 - (3) DNA core and lipid envelop
 - (4) Nucleic acid core and plasma membrane
35. Which of the following is not characteristic of the animal kingdom ?
- (1) Multicellularity ; cells form tissues, organs
 - (2) Exclusive reliance on sexual reproduction
 - (3) Embryonic development during life cycle
 - (4) Motility at some stage of the life cycle
36. Which of the following is biologically mediated wastewater treatment ?
- (1) Primary treatment
 - (2) Secondary treatment
 - (3) Tertiary treatment
 - (4) Advanced treatment
37. Which of the following is the 'ecomark' of India ?
- (1) Peacock
 - (2) Wooden flute
 - (3) Lotus flower
 - (4) Earthen pitcher

38. Who is the environmentalist associated with 'Chipko movement' ?
- (1) Medha Patekar (2) Anil Agarwal
(3) Rajendra Singh (4) Sunderlal Bahuguna
39. Sea birds play a major role in cycling of which of the following nutrients ?
- (1) Nitrogen (2) Phosphorus (3) Carbon (4) Sulphur
40. Eutrophication of lakes and ponds is caused by
- (1) Nitrates and Phosphates (2) Calcium and Magnesium
(3) Nitrates and Carbonates (4) Phosphates and Sulphates
41. Which of the following heavy metals in the industrial effluents caused Minamata disease ?
- (1) Mercury (2) Lead (3) Cadmium (4) Nickel
42. Methaemoglobinemia (blue baby syndrome) is caused due to which of the following type of water pollution ?
- (1) Phosphate pollution (2) Mercury pollution
(3) Arsenic pollution (4) Nitrate pollution
43. Overgrazing of grasslands by cattle often results in
- (1) Sustained productivity of soil
(2) Desertification
(3) Retention of useful species
(4) Salinization

44. Which of the following gives an economic value for environmental impacts ?
- (1) Battelle Evaluation System
 - (2) Sorensen network analysis
 - (3) Hedonic Price method
 - (4) Leopold Matrix method
45. Bhopal gas tragedy occurred due to leakage of
- (1) MIC
 - (2) DDT
 - (3) SO₂
 - (4) Dioxins
46. Carrying capacity of a system in an index of
- (1) The threshold of stress on the environment
 - (2) The adverse impact that some activity has on the environment
 - (3) The input-output analysis of project activity
 - (4) The impact assessment of the environment
47. Which method is suitable for nitrogen and phosphorus removal from wastewater ?
- (1) Primary sedimentation
 - (2) Aerobic secondary treatment
 - (3) Anaerobic secondary treatment
 - (4) Tertiary treatment
48. Select the correct pair
- (1) Jacob & Monod — Operon Model
 - (2) Robert Hook — Nucleus
 - (3) Robert Brown — Bacterial transformation
 - (4) Griffith — Cell

49. The molarity of one liter of water is
(1) 1 M (2) 18 M (3) 55.5 M (4) 273.15 M
50. Which of the following is not a component of RNA ?
(1) Thiamine (2) Guanine (3) Cytosine (4) Adenine
51. Progressive accumulation of some non-biodegradable chemicals through the food chain is known as
(1) Ecological balance (2) Biological magnification
(3) Trophic structure (4) Bio-degradation
52. Which of the following is correct about CFCs ?
(1) These are toxic, unstable and costly chemicals used in refrigeration
(2) These take a few hours to reach the stratosphere
(3) These deplete moisture in the stratosphere
(4) These stay in the stratosphere for 65-110 years
53. Which form of mercury is toxic to us ?
(1) Elemental form (2) Monomethylated form
(3) Dimethylated form (4) Chlorinated forms
54. Permissible limits of BOD (EPA, 1986) for discharge of wastewater in inland surface water is
(1) 20 ppm (2) 30 ppm (3) 100 ppm (4) 250 ppm
55. Which of the following industries emits noxious mercaptans ?
(1) Optical glass industry
(2) Coir industry
(3) Paper and pulp industry
(4) Textile industry

56. Which activities are NOT prohibited in Coastal Regulation Zone (CRZ) ?

- (1) Storage of hazardous wastes
- (2) Dumping of municipal waste
- (3) Mining of sand and rocks
- (4) Camping sites

57. A country has 6.5 million population and its annual growth rate is 2%. After how many years its population will become 13 million ?

- (1) 15 years
- (2) 25 years
- (3) 35 years
- (4) 50 years

58. A salinc-sodic soil shows

- (1) High ESP, high pH
- (2) High pH, high EC
- (3) High ESP, high EC
- (4) High pH, high ESP, high EC

59. Which combination is correct ?

- (1) Kaziranga National Park — Rajasthan
- (2) Dachigam National Park — Jammu & Kashmir
- (3) Keoladeo National Park — Orissa
- (4) Nandan Kanan National Park — Assam

60. Which of the following is NOT true ?

- (1) Pyramid of energy is always upright
- (2) Grazing food chain predominates in a shallow water system
- (3) Energy flows in an ecosystem in a cyclic manner
- (4) Organochlorine Pesticides in a food web tend to biomagnify

61. Wangari Maathai has won which prize/honour for environment

- (1) Nobel Prize
- (2) World Peace Prize
- (3) World Awareness Prize
- (4) Honoured by the WWF

62. Which acid is associated with fertile soil ?
- (1) Humic acid (2) Acetic acid
(3) Nitric acid (4) Sulphuric acid
63. Burning of fossil fuels drastically affects one of the following cycles
- (1) Nitrogen cycle (2) Phosphorous cycle
(3) Carbon cycle (4) Water cycle
64. The Chernobyl disaster was caused by a
- (1) Nuclear test
(2) Nuclear reactor accident
(3) Nuclear waste disposal leak
(4) Nuclear weapon accident
65. How does temperature change in the stratosphere with increasing height ?
- (1) It decreases (2) It increases
(3) It remains the same (4) It keeps on fluctuating
66. Which of these is a hot spot of biodiversity ?
- (1) Deccan plateau (2) Western ghats
(3) Shivaliks (4) Chilka
67. What is the source of energy in sun ?
- (1) Nuclear fission reactions (2) Nuclear fusion reactions
(3) Thermal reactions of gases (4) Thermal dissociation of gases
68. Permissible limits of NO_2 in residential areas (24h basis) as per NAAQS is
- (1) $30 \mu\text{g}/\text{m}^3$ (2) $60 \mu\text{g}/\text{m}^3$ (3) $80 \mu\text{g}/\text{m}^3$ (4) $120 \mu\text{g}/\text{m}^3$

75. Which of the following industries fall under green industry ?
- (1) Sugar industry (2) Coir industry
(3) Vegetable oil industry (4) Instant Coffee industry
76. Which of the following is NOT true about arsenic ?
- (1) It is a component of some insecticides
(2) It attacks the SH group of enzymes
(3) Its presence in high concentration in groundwater causes severe skin lesions
(4) Once inside the body it cannot pass out with urine
77. Concentration of CO in vehicular exhaust is approximately
- (1) below 20% (2) 35% (3) 50% (4) above 70%
78. The size of the RSPM is
- (1) Below 10 micrometer (2) 15-20 micrometer
(3) 23 micrometer (4) Above 25 micrometer
79. UV radiations are filtered by ozone present in
- (1) Troposphere (2) Stratosphere (3) Mesosphere (4) Thermosphere
80. Which of the following has the maximum global warming potential per molecule ?
- (1) Nitrous oxide (2) CO₂
(3) Methane (4) CFCs
81. Which of the following fuels burns cleanest ?
- (1) Coal (2) Lignite (3) Petroleum (4) Natural gas

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- 82.** The speed of wind required for running a wind mill should be minimum
(1) 15 km/h (2) 25 km/h (3) 35 km/h (4) 40 km/h
- 83.** Performance of Ocean Thermal Energy Conversion depends on
(1) Surface area of the ocean
(2) Large Temperature difference between surface and bottom layers
(3) Large pressure difference between surface and bottom layers
(4) Height of tides
- 84.** The reliability of Gaussian plume model is
(1) 98% (2) 95% (3) 70% (4) 50%
- 85.** Which of the following particles has the maximum penetrating capacity through solids ?
(1) Alpha particles (2) Beta particles
(3) Gamma rays (4) Radiations in visible range
- 86.** Increasing Carbon dioxide concentration in environment has the following effects
(1) Causes changes in rainfall pattern
(2) Doesn't affect soil moisture
(3) Decreases water stress tolerance in pines
(4) Causes decline in sea level
- 87.** Which of the slimy bacterium is predominant in a trickling filter ?
(1) Clostridium (2) Salmonella (3) Zooglea (4) Bdellovibrio
- 88.** Which of the following can cause damage to Ozone ?
(1) NO (2) VOCs (3) CO (4) CFCs

89. Maximum ozone depletion occur in
- (1) Arctic (2) Antarctic
(3) Equator (4) Anywhere on the globe
90. Westerlies are the winds blowing from
- (1) East to West (2) North to West
(3) West to East (4) West to South
91. The chemical formula of CFC-12 is
- (1) CF_2Cl_2 (2) $CFCl_3$ (3) CH_2F_2 (4) CHF_3
92. The major goal of EIA is best explained as
- (1) Benefits of development on the environment
(2) Damage of development on the environment
(3) Residual beneficial impacts of development on the environment
(4) Assessment of the balance between the benefits and damage of development on the environment
93. In India EIA comes into force in
- (1) 1972 (2) 1986 (3) 1994 (4) 2000
94. As per MoEF's 1994 gazette notification, EIA is mandatory for how many polluting activities ?
- (1) 25 (2) 29 (3) 32 (4) 35
95. What can be the maximum DO level of a water body at 25 °C ?
- (1) 8.2 mg/l (2) 9.1 mg/l
(3) 12.2 mg/l (4) 14.9 mg/l

96. Which of the following has maximum albedo ?
- (1) Soil (2) Water (3) Vegetation (4) Snow
97. Solar constant of earth is
- (1) 1 cal/cm²/min (2) 2 cal/cm²/min
(3) 3 cal/cm²/min (4) 4 cal/cm²/min
98. An isobaric surface is an invisible surface in the atmosphere on which
- (1) Concentration of gases is everywhere same
(2) Temperature is everywhere same
(3) Pressure is everywhere same
(4) Solar energy is everywhere same
99. The species on which existence of a particular ecosystem depends is known as
- (1) Keystone species (2) Endemic species
(3) Endangered species (4) Ecotone
100. Which bacterial genus plays a role in microbial leaching of low-grade ores ?
- (1) Azotobacter (2) Thiobacillus
(3) Streptococcus (4) Nitrosomonas
101. Which of the following is NOT one of the objectives of sludge stabilization ?
- (1) To reduce odour (2) To reduce sludge solids
(3) To reduce pathogens (4) To reduce phosphorus content

102. What is breakpoint chlorination ?

- (1) The point after which the chlorine added is used for killing microbes
- (2) The point after which the chlorine added is used for oxidation of organic matter
- (3) The point after which the chlorine added is used for killing microbes and oxidation of organic matter
- (4) The point after which the chlorine added is liberated as free chlorine

103. Which one is a water borne disease ?

- (1) Schistosomiasis
- (2) Malaria
- (3) Cholera
- (4) Dengue

104. Which of the following is an example of *ex situ* conservation ?

- (1) Biosphere reserve
- (2) Sanctuary
- (3) Gene bank
- (4) Gene Farm

105. Expanding population is indicated by which age-pyramid ?

- (1) Pyramid shaped
- (2) Bell shaped
- (3) Urn shaped
- (4) Polygonal shaped

106. Pick up the correct statement

- (1) Obligate anaerobic bacteria flourish in the presence of oxygen.
- (2) Facultative anaerobic bacteria flourish only in the absence of oxygen.
- (3) Facultative aerobic bacteria flourish in the absence of oxygen and can also grow in presence of oxygen.
- (4) Facultative anaerobic bacteria flourish in the absence of oxygen and can also grow in presence of oxygen.

107. The secondary treatment of wastewater is mediated mainly by

- (1) Bacteria
- (2) Mosses
- (3) Coagulants
- (4) Lichens

108. Activated sludge is the
- (1) Aerated sludge in the aeration unit
 - (2) Sludge settled in the humus tank
 - (3) Sludge in the secondary tank after aeration and rich in microbial mass
 - (4) Sludge in the secondary tank after aeration and rich in nutrients
109. The popular disposal method of solid waste in India is
- (1) Incineration
 - (2) Landfill
 - (3) Pyrolysis
 - (4) Dumping
110. An important index of organic pollution in case of a stream is
- (1) Colour
 - (2) COD
 - (3) Alkalinity
 - (4) Turbidity
111. The maximum damage to the 'Taj Mahal' is because of the gas
- (1) CO₂
 - (2) CO
 - (3) SO₂
 - (4) NO_x
112. Which of the following pair is NOT correctly matched ?
- (1) BOD — Strength of sewage
 - (2) Methane — Product of anaerobic decomposition
 - (3) COD — Biodegradability of waste water
 - (4) Nitrate — Methemoglobinemia
113. Which of the following treatments reduces the salinity of the water ?
- (1) Reverse osmosis
 - (2) Electrodialysis
 - (3) Flash mixing and sedimentation
 - (4) Freezing
114. Which of the following pairs is correctly matched ?
- (1) Lime soda process — Softening
 - (2) Nalgonda technique — Fluoride removal
 - (3) Aeration — Coagulation
 - (4) Ozonation — Souring

Q. 115 to 119 consist of two statements, one labelled as Assertion (A) and the other labelled as Reason (R). You are to examine these two statements and mark your answer accordingly using the following codes :

- (1) *Both (A) and (R) are true and (R) is the correct explanation of (A)*
- (2) *Both (A) and (R) are true but (R) is not a correct explanation of (A)*
- (3) *(A) is true but (R) is false*
- (4) *(A) is false but (R) is true*

115. (A) : Complex food webs provide greater stability to ecosystems in comparison to linear food chains.

(R) : Co-generic homotaxis increases resistance stability of an ecosystem.

116. (A) : Tropical forests show closed nutrient cycles.

(R) : Nutrients in tropical forests are circulated in the biotic components via mycorrhizae.

117. (A) : Regions of high precipitation have acidic soils.

(R) : Oxides and sesquioxides of iron and aluminium are very resistant to leaching.

118. (A) : *Clostridium* is anaerobic and can fix atmospheric Nitrogen.

(R) : Nitrogenase responsible for nitrogen fixation is sensitive to oxygen.

119. (A) : pH of normal rainwater is slightly acidic.

(R) : Ambient air always has excess of oxides of sulphur.

120. Acid rain occurs when the pH falls below

- (1) 4.5 (2) 6.0 (3) 6.5 (4) 5.6

121. The World Summit on Sustainable Development was held at
- (1) Stockholm (2) Rio de Janeiro
(3) Kyoto (4) Johannesburg
122. Which of the following NGOs is associated with Chipko Movement ?
- (1) Kalpavriksh
(2) Shrishti
(3) Dasholi gram Swarajya Mandal
(4) Green Peace
123. Which Article in the Constitution of India recognizes environmental protection as a fundamental duty of every citizen of India ?
- (1) Article 42 (2) Article 45A
(3) Article 42A(g) (4) Article 51A(g)
124. As per the Forest Act, which of the following is a non-forest activity in a reserve forest ?
- (1) Rubber tree cultivation
(2) Shelter-wood Cutting
(3) Native tree cultivation
(4) Making water holes and pipelines in the forest
125. Declaration of Human Rights and Environment was drafted by the United nations at
- (1) Stockholm (2) Geneva (3) Vienna (4) Norway
126. WWW stands for
- (1) Wide ware web
(2) World wide web
(3) Website of western world
(4) Widest word website

127. Which of the following projects raised much debate over the socio-economic issue of displacement and rehabilitation of native people ?
- (1) Sardar Sarovar Project
 - (2) Aravalli mining
 - (3) Silent Valley Project
 - (4) Jaduguda Uranium Mining Project
128. Which of the following is an important source of biodiesel ?
- (1) Sorghum (2) Jatropha (3) Sugarcane (4) Castor
129. Noise level considered as Threshold of pain is
- (1) 90 dB (2) 100 dB (3) 120 dB (4) 140 dB
130. Which of the following is not correct about GIS ?
- (1) It involves superimposing thematic maps
 - (2) It is a software based technique
 - (3) There is no need for physical surveys in its interpretation
 - (4) It makes use of information on a large number of inter-related physical as well as biological aspects
131. BT Cotton is an example of
- (1) Hybrid vigor
 - (2) GMO
 - (3) Hyperaccumulator of heavy metals
 - (4) Biostabilizer
132. Temperature required to initiate the process of nuclear fusion is about
- (1) 10,000 °C (2) 1 million °C
 - (3) 1 billion °C (4) 1 trillion °C

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133. Ethanol can be easily obtained from substances rich in
- (1) Lipids (2) Carbohydrates
(3) Proteins (4) Secondary metabolites
134. Which of the following is concerned with phasing out of CFCs ?
- (1) Montreal Protocol (2) Ramsar convention
(3) Outer space treaty (4) SAARC summit
135. Photochemical smog formation starts with
- (1) NO₂ (2) SO₂
(3) Hydrocarbons (4) VOCs
136. PAN is the
- (1) Initiation material of Photochemical smog
(2) Intermediate product of Photochemical smog
(3) Termination product of Photochemical smog
(4) Harmless product of Photochemical smog
137. Methane in biogas accounts for
- (1) 50-68% (2) 80-86% (3) 90-94% (4) 100%
138. Water vapours are present in the
- (1) Troposphere (2) Stratosphere
(3) Mesosphere (4) Thermosphere
139. URL stands for
- (1) Uniform Resource Locator
(2) Universal Resource Locator
(3) Unlimited Resource Locator
(4) Upgraded Resource Locator

140. Which of the following acids has maximum percentage in acid rain ?
- (1) Hydrochloric acid (2) Sulphuric acid
(3) Nitric acid (4) Acetic acid
141. The pollutants which are emitted from identifiable point source are called as
- (1) Primary pollutants (2) Secondary pollutants
(3) Tertiary pollutants (4) Ordinary pollutants
142. Oil in water causes fish mortality by affecting
- (1) Scales (2) Eyes (3) Nose (4) Gills
143. Due to climate change more warming than global average will occur
- (1) At poles (2) At equator
(3) In tropics (4) In temperate zone
144. Although CFCs are used in areas of human habitation yet maximum ozone depletion occurs
- (1) At equator (2) At Arctic region
(3) In Antarctica (4) In tropics
145. The most important indoor air pollutant is
- (1) CO₂ (2) SO₂ (3) Radon (4) Methane
146. Chemicals or agents that cause cancer are called
- (1) Teratogenic (2) Mutagenic
(3) Carcinogenic (4) Neurotoxic

147. Atmospheric ozone concentration is measured in

- (1) Decibel scale
- (2) Dobson units
- (3) Kilometers
- (4) Liters

148. High volume sampler is used for measurement of

- (1) Water quality
- (2) Soil quality
- (3) Noise quality
- (4) Air quality

149. West-Gaeke method is used for measurement of atmospheric concentration of

- (1) NO₂
- (2) SO₂
- (3) CO
- (4) CO₂

150. Environmental clearance to the developmental projects in the State is given by

- (1) State Pollution Control Board
- (2) State Environment Department
- (3) State Expert Appraisal Committee
- (4) State Environmental Impact Assessment Authority

अभ्यर्थियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण-पृष्ठ पर तथा उत्तर-पत्र के दोनों पृष्ठों पर केवल नीली-काली बाल-प्याइंट पेन से ही लिखें।)

1. प्रश्न पुस्तिका मिलने के 10 मिनट के अन्दर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई प्रश्न छूटा नहीं है। पुस्तिका दोषयुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण प्रश्नपत्र की दूसरी पुस्तिका प्राप्त कर लें।
2. परीक्षा भवन में लिफाफा रहित प्रवेश-पत्र के अतिरिक्त, लिखा या सादा कोई भी खुला कागज साथ में न लायें।
3. उत्तर-पत्र अलग से दिया गया है। उसे न तो मोड़ें और न ही विकृत करें। दूसरा उत्तर-पत्र नहीं दिया जायेगा। केवल उत्तर-पत्र का ही मूल्यांकन किया जायेगा।
4. अपना अनुक्रमांक तथा उत्तर-पत्र का क्रमांक प्रथम आवरण-पृष्ठ पर पेन से निर्धारित स्थान पर लिखें।
5. उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये वृत्तों को गाढ़ा कर दें। जहाँ-जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नम्बर उचित स्थानों पर लिखें।
6. ओ० एम० आर० पत्र पर अनुक्रमांक संख्या, प्रश्न-पुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्न-पुस्तिका पर अनुक्रमांक सं० और ओ० एम० आर० पत्र संख्या की प्रविष्टियों में उपरिलेखन की अनुमति नहीं है।
7. उपर्युक्त प्रविष्टियों में कोई भी परिवर्तन कक्ष-निरीक्षक द्वारा प्रमाणित होना चाहिये अन्यथा यह एक अनुचित साधन का प्रयोग माना जायेगा।
8. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिये आपको उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को उत्तर-पत्र के प्रथम पृष्ठ पर दिये गये निर्देशों के अनुसार पेन से गाढ़ा करना है।
9. प्रत्येक प्रश्न के उत्तर के लिये केवल एक ही वृत्त को गाढ़ा करें। एक से अधिक वृत्तों को गाढ़ा करने पर अथवा एक वृत्त को अपूर्ण भरने पर वह उत्तर गलत माना जायेगा।
10. ध्यान दे कि एक बार स्याही द्वारा अंकित उत्तर बदला नहीं जा सकता है। यदि आप किसी प्रश्न का उत्तर नहीं देना चाहते हैं, तो सम्बन्धित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।
11. रफ कार्य के लिये इस-पुस्तिका के मुखपृष्ठ के अंदर वाला पृष्ठ तथा अंतिम खाली पृष्ठ का प्रयोग करें।
12. परीक्षा के उपरान्त प्रश्न-पुस्तिका एवं उत्तर-पत्र परीक्षा भवन में जमा कर दें।
13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।
14. यदि कोई अभ्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विश्वविद्यालय द्वारा निर्धारित दंड का/की भागी होगा / होगी।