

Roll No.-----

प्रश्नपुस्तिका क्रमांक
Question Booklet No.

O.M.R. Serial No.

K-1366

B.Sc. (Biotech.) (Second Semester) Examination, 2025-26

(NEP)

(BBT2003) BACK PAPER

ENVIRONMENTAL SCIENCES

Paper Code

BBT2003

(To be filled in the
OMR Sheet)

प्रश्नपुस्तिका सीरीज
Question Booklet Series

A

Time : 1:30 Hours]

[Maximum Marks-75

Instructions to the Examinee :

1. Do not open the booklet unless you are asked to do so.
2. The booklet contains 100 questions. Examinee is required to answer 75 questions in the OMR Answer-Sheet provided and not in the question booklet. All questions carry equal marks.
3. Examine the Booklet and the OMR Answer-Sheet very carefully before you proceed. Faulty question booklet due to missing or duplicate pages/questions or having any other discrepancy should be got immediately replaced.

परीक्षार्थियों के लिए निर्देश :

1. प्रश्न-पुस्तिका को तब तक न खोलें जब तक आपसे कहा न जाए।
2. प्रश्न-पुस्तिका में 100 प्रश्न हैं। परीक्षार्थी को 75 प्रश्नों को केवल दी गई OMR आन्सर-शीट पर ही हल करना है, प्रश्न-पुस्तिका पर नहीं। सभी प्रश्नों के अंक समान हैं।
3. प्रश्नों के उत्तर अंकित करने से पूर्व प्रश्न-पुस्तिका तथा OMR आन्सर-शीट को सावधानीपूर्वक देख लें। दोषपूर्ण प्रश्न-पुस्तिका जिसमें कुछ भाग छपने से छूट गए हों या प्रश्न एक से अधिक बार छप गए हो या उसमें किसी अन्य प्रकार की कमी हो, तो उसे तुरन्त बदल लें।

(Remaining instructions on the last page)

(शेष निर्देश अन्तिम पृष्ठ पर)

1. Which of the following statements define Environmental Engineering?
 - (A) Creation of procedures and infrastructure for water delivery
 - (B) Waste disposal
 - (C) Pollution control of various kinds
 - (D) All of the mentioned
2. Which of the following is/are types of pollution that affect the environment?
 - (A) Air pollution
 - (B) Water pollution
 - (C) Land pollution
 - (D) All of the mentioned
3. Which of the following statements define environmental chemistry?
 - (A) Study of chemical reactions that occur in water, air, land, biological habitats, and human activities
 - (B) Study of chemical reactions that occur in water, air, land and biological habitats only
 - (C) Study of chemical reactions that occur in water, air, and land only
 - (D) None of the above
4. Environmental science is defined by which of the following statements?
 - (A) Study of the interactions between the environment's and humans only
 - (B) Study of the interactions between the environment's and physical components
 - (C) Study of the interactions between the environment's and chemical components
 - (D) Study of the interactions between the environment's physical, chemical, and biological components
5. Why carbon dioxide is called a greenhouse gas?
 - (A) Because they absorb heat
 - (B) Because they absorb moisture
 - (C) Because they absorb oxygen
 - (D) Because they absorb hydrogen

6. Which of the following statements means water vapor?
 - (A) Water vapor is the gaseous phase of water
 - (B) Water vapor is the liquid phase of water
 - (C) Water vapor is the solid phase of water
 - (D) All of the mentioned
7. Which of the following is a renewable source of energy?
 - (A) Ocean currents
 - (B) Solar energy
 - (C) Biomass
 - (D) All of the above
8. What does the phrase “anthropogenic CO₂ emissions” mean?
 - (A) Natural CO₂ emissions
 - (B) Human made CO₂ emissions
 - (C) Industrial CO₂ emissions
 - (D) All of the mentioned
9. Which process of water treatment is done to avoid floating debris, branches, trees or other large particles suspended in water?
 - (A) Primary sedimentation
 - (B) Secondary sedimentation
 - (C) Screening
 - (D) Aeration
10. Which of the following is NOT a primary pollutant?
 - (A) Oxygen
 - (B) Ground-level ozone
 - (C) Carbon monoxide
 - (D) Carbon dioxide
11. Which of the following plants is extremely sensitive towards sulphur dioxide?
 - (A) Tomato
 - (B) Onion
 - (C) Potato
 - (D) Corn

12. Which of the following is not commonly used as a filter material in the treatment of water?
- (A) Garnet sand
 - (B) Crushed rock
 - (C) Sand
 - (D) Anthracite
13. In which of the following process earthworms decompose biodegradable solid waste?
- (A) Composting
 - (B) Land fills
 - (C) Shredding
 - (D) Vermi-composting
14. Which of the following is biodegradable waste?
- (A) Paper
 - (B) Food waste
 - (C) Polythene bags
 - (D) Synthetic fiber
15. Which of the following type of pollution is Cultural eutrophication?
- (A) Noise pollution
 - (B) Thermal pollution
 - (C) Soil pollution
 - (D) Water pollution
16. Which of the following radiations of the sun do greenhouse gases trap?
- (A) Infrared radiations
 - (B) UV radiations
 - (C) Visible radiations
 - (D) All the radiations

17. Which of the following gas is not colorless?
- (A) SO_3
 - (B) Pb
 - (C) NO
 - (D) O_3
18. Which of the following greenhouse gas is contributed by cattle farming?
- (A) Carbon monoxide
 - (B) Nitrous oxide
 - (C) Methane
 - (D) All of the mentioned
19. The Chipko movement was originated in _____ district of Uttrakhand.
- (A) Haridwar
 - (B) Dehradun
 - (C) Champawat
 - (D) Chamoli
20. Forest Conservation Act was established in -
- (A) 1952
 - (B) 1988
 - (C) 1980
 - (D) 1970
21. The Wild Life Protection Act was established in -
- (A) 1952
 - (B) 1972
 - (C) 1980
 - (D) 1970
22. Which of the following is a fossil fuel?
- (A) Tar
 - (B) Coal
 - (C) Petroleum
 - (D) All of the above

23. Soil erosion can be prevented by -
- (A) Afforestation
 - (B) Deforestation
 - (C) Over growing
 - (D) Removal of vegetation
24. Common energy source in village is -
- (A) Coal
 - (B) Biogas
 - (C) Electricity
 - (D) Wood and animal dung
25. Jim Corbett National Park was established in -
- (A) Uttar Pradesh
 - (B) Tamil Nadu
 - (C) Gujarat
 - (D) Uttrakhand
26. Soil erosion is caused by -
- (A) Deforestation
 - (B) Farming and mining
 - (C) Overgrazing by cattle
 - (D) All of the above
27. _____ is used for generation of electricity -
- (A) Tar
 - (B) Coal
 - (C) Petroleum
 - (D) All of the above
28. Biogas is otherwise called as -
- (A) Vermi gas
 - (B) Methane
 - (C) Gobar gas
 - (D) Gobal gas

29. The main purpose of rainwater harvesting is recharge the -
(A) Gardens
(B) Wells
(C) Cannels
(D) Groundwater table
30. Removal of microorganisms from the sewage water is by -
(A) Aeration
(B) Pre-screening
(C) Disinfection
(D) Sludge removal
31. Deforestation is caused by -
(A) Over population and shifting of cultivation
(B) The increase in demand for fuel is another reason
(C) Over grazing and forest fire
(D) All of the above
32. Botanical Survey of India is located in -
(A) Gujarat
(B) Delhi
(C) Calcutta
(D) Tamil Nadu
33. The most important natural resources, which shapes the earth's surface and regulate our climate -
(A) Forest resources
(B) Food resources
(C) Land resources
(D) Water resources
34. First national park in India :
(A) Bandipur National park
(B) Gir National park
(C) Sunderbans National park
(D) Jim Corbett National park

35. Biosphere exists on earth between _____ meter below the sea level _____ meter above the sea level :
- (A) 5000m and 6000m
 - (B) 10000 m and 5000m
 - (C) 10000 m and 6000m
 - (D) 6000 m and 5000m
36. Living thing in an environment is known as -
- (A) Abiotic elements
 - (B) Biotic elements
 - (B) Animals and microorganism
 - (D) Plants
37. Nuclear family refers to -
- (A) Any family born after 1950
 - (B) Family includes parents and their children
 - (C) Entire family including children, their parents and grandparents
 - (D) Only husband and wife
38. The people should become aware of the dangers of -
- (A) Population explosion
 - (B) Deforestation and ozone layer depletion
 - (C) Industrialization and global warming
 - (D) All of the above
39. Man-made Environment includes _____.
- (A) Human groups
 - (B) Material infrastructure
 - (C) Institutional systems
 - (D) All of the above

40. Environmental studies provides knowledge on :
- (A) Richness and conservation of biodiversity
 - (B) Relationship of ecosystems
 - (C) Understand about environmental pollution and control
 - (D) All of the above
41. Which of the following three R,s regarded as environment friendly -
- (A) Reduce, Rebuild, Restrict
 - (B) Reduce, Reuse, Recycle
 - (C) Read. Register, Recall
 - (D) Random, Reduce, Recall
42. What is Biodiversity -
- (A) Many populations of one species in one forest
 - (B) Many types of flora and fauna in one forest
 - (C) Many types of flora and fauna in many forest
 - (D) All the above are true
43. The amount of CO₂ in the air that we exhale is about -
- (A) 4%
 - (B) 8%
 - (C) 12%
 - (D) 16%
44. What does ozone layer absorb -
- (A) Gamma rays
 - (B) X- Rays
 - (C) Ultraviolet rays
 - (D) Infrared rays
45. The term green revolution was coined by -
- (A) M.S. Swaminathan
 - (B) Chares Elton
 - (C) William Gaud
 - (D) E.Odum

46. Biotic resources includes :
- (A) Plants and animals
 - (B) Human population
 - (C) Coal and Oil
 - (D) All of the above
47. Why should we conserve forest and wild life :
- (A) To protect biodiversity
 - (B) To maintain balance
 - (C) To continue food chain
 - (D) All of the above
48. Water harvesting is a method which :
- (A) Increase ground water level
 - (B) Not practiced in modern days
 - (C) Has no relation with ground water
 - (D) Decrease ground water level
49. A non renewable source of energy is -
- (A) Wile life
 - (B) Fossil fuels
 - (C) Water
 - (D) Forest
50. An inexhaustible and renewable source of energy is -
- (A) Wood
 - (B) Natural gas
 - (C) Fossil fuel
 - (D) Hydropower

51. A species restricted to a given area is -
- (A) Endemic species
 - (B) Allopatric species
 - (C) Sympatric species
 - (D) Sibling species
52. IUCN Stands for -
- (A) International Union for Conservation of Nature
 - (B) International Union for Conservation of Nature and Natural Resources
 - (C) International Union Council for Nature
 - (D) International Union council for Conservation of Nature and Natural Resources
53. The U.N. Council declared year ____ is the international year of fresh water -
- (A) 1973
 - (B) 1983
 - (C) 1993
 - (D) 2003
54. Plants which have no soil-binding capacity start growing -
- (A) Parthenium
 - (B) Lantana
 - (C) Xanthium
 - (D) All the above
55. _____ is the second generation of pesticides which enter into the food chain -
- (A) Malathion
 - (B) Boric Acid
 - (C) Diazinon
 - (D) DDT
56. _____ Gas is used in automobiles to reduce air pollution
- (A) Liquid Petroleum Gas
 - (B) Compressed Natural Gas
 - (C) Synthetic Gas
 - (D) All the above

57. Biogas is a mixture of _____
- (A) Methane and CO₂
 - (B) Methane, CO₂ and H₂
 - (C) Methane, CO₂, H₂ and H₂S
 - (D) None of the above
58. _____ is pollution free and cheap source of energy
- (A) Biomass energy
 - (B) Nuclear energy
 - (C) Biofuels
 - (D) Biogas
59. The term ecosystem was first introduced by_
- (A) Utpary
 - (B) Earnest Haeckel
 - (C) Sir Arthur Tansley
 - (D) Sukachev
60. The word ecology coined by
- (A) Sir Arthur Tansley
 - (B) Earnest Haeckel
 - (C) Utpary
 - (D) Sukachev
61. In an ecosystem, the energy flow is always
- (A) Always unidirectional
 - (B) Always bidirectional
 - (C) In any direction
 - (D) Always down directional
62. The upper part of an aquatic ecosystem contains
- (A) Benthos
 - (B) Plankton
 - (C) Nekton
 - (D) Both (A) and (B)

63. In the biosphere energy is received from
- (A) The Sun
 - (B) The interior of the earth
 - (C) Both (A) and (B)
 - (D) Work
64. Ecosystem is smallest unit of
- (A) Biosphere
 - (B) Lithosphere
 - (C) Ionosphere
 - (D) Mesosphere
65. Organic components includes
- (A) Carbohydrates
 - (B) Proteins
 - (C) Fats
 - (D) All the above
66. Which is called as autotrophs
- (A) Green plants
 - (B) Animals
 - (C) Birds
 - (D) All of the above
67. Photosynthesis is a process by which plants prepare their own food by using. _
- (A) CO_2
 - (B) H_2O
 - (C) Light and chlorophyll
 - (D) All of the above
68. Example of Primary consumers
- (A) Rabbit
 - (B) Frog
 - (C) Snake
 - (D) All of the above

69. Secondary consumers deriving their energy from_____
- (A) Producers
 - (B) Herbivores
 - (C) Tertiary consumers
 - (D) From the all
70. Examples of detrivores
- (A) Bacteria and fungi
 - (B) Snake and Big fish
 - (C) Rat and Birds
 - (D) Beetles, Ants and Earthworms
71. The major functional attributes of the ecosystems includes
- (A) Energy flow
 - (B) Tropic structure
 - (C) Nutrient cycle and productivity
 - (D) All of the above
72. The following is the correct food chain of an aquatic ecosystem
- (A) Phytoplankton→Zooplankton→Fish→Bird→Vulture
 - (B) Phytoplankton→Fish→Zooplankton→Bird→Vulture
 - (C) Zooplankton→Phytoplankton→Vulture→Fish→Bird
 - (D) Fish→Zooplankton→Phytoplankton→Bird→Vulture
73. The following is the correct food chain of grassland ecosystem
- (A) Grass→Grasshopper→Frog→Snake→Hawk
 - (B) Grass→Grasshopper→Frog→Hawk→Snake
 - (C) Grass→ Frog→Grasshopper→Snake→Hawk
 - (D) Grass→Grasshopper→Snake→Frog→Hawk
74. An estuary is the place where
- (A) Rich in nutrients
 - (B) Usually support an abundance of fish
 - (C) River joins with the sea
 - (D) All of the above

75. Ecological pyramid were first devised by
- (A) Earnest Haeckel
 - (B) Sir Arthur Tansley
 - (C) E.P. Odum
 - (D) Charles Elton
76. Biogeochemical cycle includes
- (A) Nutrient cycling through biotic components
 - (B) Nutrient cycling through abiotic components
 - (C) Nutrient cycling through biotic and abiotic components
 - (D) None of the above
77. The pioneers in xerarch succession is the
- (A) Mosses
 - (B) Crutose lichens
 - (C) Crustose and foliose lichens
 - (D) None of the above
78. The following forests are famous for richest biodiversity
- (A) Tropical rain forests
 - (B) Tropical deciduous forests
 - (C) Temperate rain forests
 - (D) Evergreen forests
79. Biodiversity comprises
- (A) Genetic diversity
 - (B) Species diversity
 - (C) Ecosystem diversity
 - (D) All of the above
80. Red data book contains
- (A) All plant species
 - (B) All animal species
 - (C) Threatened species
 - (D) Economically important species

81. Which of the following is the natural habitat of the Indian lion
- (A) Sunderban delta
 - (B) Gir forest
 - (C) Bandipur national park
 - (D) Kasiranga national park
82. Dodo is a
- (A) Endangered species
 - (B) Extinct species
 - (C) Critically endangered species
 - (D) Rare
83. Ex-situ conservation includes
- (A) Botanical gardens
 - (B) Zoo
 - (C) Germ plasm bank
 - (D) All of the above
84. Endemic species are
- (A) Rare species
 - (B) Cosmopolitan distribution
 - (C) Species localized in a specific region
 - (D) Critically endangered species
85. Hot spot are regions of high
- (A) Endemism
 - (B) Diversity
 - (C) Rarity
 - (D) Critically endangered population

86. Major causes of extinction of different species includes
- (A) Habitat Loss and over-hunting
 - (B) Climate change and pollution
 - (C) Deforestation
 - (D) All of the above
87. Which of the following area is the hotspot of India?
- (A) Sunderbans Deltas
 - (B) Western Ghats
 - (C) Eastern Ghats
 - (D) Gangetic Plain
88. Instrument used to measure earthquake is known as
- (A) Seismograph
 - (B) Quake graph
 - (C) Quake meter
 - (D) Typanicgraph
89. In which of the following places Royal Bengal Tiger found
- (A) Gir forest
 - (B) Sunderban delta
 - (C) Godawari Delta
 - (D) Mahanadi Delta
90. Which country is occupied first position in plant rich nations
- (A) India
 - (B) South Africa
 - (C) Mexico
 - (D) Indonesia

91. Which among the following country is considered to have the world's first sustainable biofuels economy?
- (A) Mexico
 - (B) Indonesia
 - (C) Brazil
 - (D) China
92. The Air Act was legislated in India during the year
- (A) 1980
 - (B) 1981
 - (C) 1982
 - (D) 1984
93. After the Bhopal disaster, a more comprehensive _____ was passed in 1986.
- (A) Environment Protection Act (EPA)
 - (B) The Air Act
 - (C) Central Motor Vehicle Act
 - (D) Pollution control Act
94. Most polluted river in India is
- (A) Yamuna
 - (B) Cavary
 - (C) Godavery
 - (D) Ganga
95. BOD Stands for
- (A) Biological Oxygen Demand
 - (B) Biological Oxidation Demand
 - (C) Biotic Oxidation Demand
 - (D) Biochemical Oxidation Demand

96. Minamata is a disease caused by water pollution due to presence of
- (A) Lead
 - (B) Mercury
 - (C) Tin
 - (D) Methylisocyanate
97. June 5th is observed as
- (A) World Environmental Day
 - (B) World Forest Day
 - (C) World Wildlife Day
 - (D) World Population Day
98. Noise is measured by
- (A) Joule
 - (B) Decibel
 - (C) Sound
 - (D) Hertz
99. Eutrophication is the growth of Algal bloom induced by
- (A) Nutrient depletion in freshwater bodies
 - (B) Nutrient enrichment in freshwater bodies
 - (C) Heavy metal accumulation in freshwater bodies
 - (D) Toxic chemical accumulation in freshwater bodies
100. Which of the following gases was responsible for Bhopal gas tragedy?
- (A) Hydrogen fluoride
 - (B) Methyl chloride
 - (C) Hydrogen chloride
 - (D) Methyl Isocyanate

Rough Work / रफ कार्य

Rough Work / रफ कार्य

4. Four alternative answers are mentioned for each question as – A, B, C & D in the question booklet. The candidate has to choose the correct answer and mark the same in the OMR Answer-Sheet as per the direction :

Example :

Question :

Q. 1 (A) ● (C) (D)

Q. 2 (A) (B) ● (D)

Q. 3 (A) ● (C) (D)

Illegible answers with cutting and over-writing or half filled circle will be cancelled.

5. Each question carries equal marks. Marks will be awarded according to the number of correct answers you have.
6. All answers are to be given on OMR Answer Sheet only. Answers given anywhere other than the place specified in the answer sheet will not be considered valid.
7. Before writing anything on the OMR Answer Sheet, all the Instructions given in it should be read carefully.
8. After the completion of the examination candidates should leave the examination hall only after providing their OMR Answer Sheet to the invigilator. Candidate can carry their Question Booklet.
9. There will be no negative marking.
10. Rough work, if any, should be done on the blank pages provided for the purpose in the booklet.
11. To bring and use of log-book, calculator, pager and cellular phone in examination hall is prohibited.
12. In case of any difference found in English and Hindi version of the question, the English version of the question will be held authentic.

Impt. On opening the question booklet, first check that all the pages of the question booklet are printed properly. If there is any discrepancy in the question booklet, then after showing it to the invigilator, get another question booklet of the same series.

4. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार सम्भावित उत्तर— A, B, C एवं D हैं। परीक्षार्थी को उन चारों विकल्पों में से एक सही उत्तर छॉटना है। उत्तर को OMR आन्सर-शीट में सम्बन्धित प्रश्न संख्या में निम्न प्रकार भरना है :

उदाहरण :

प्रश्न :

प्रश्न 1 (A) ● (C) (D)

प्रश्न 2 (A) (B) ● (D)

प्रश्न 3 (A) ● (C) (D)

अपठनीय उत्तर या ऐसे उत्तर जिन्हें काटा या बदला गया है, या गोले में आधा भरकर दिया गया, उत्तर निरस्त कर दिया जाएगा।

5. प्रत्येक प्रश्न के अंक समान हैं। आपके जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।
6. सभी उत्तर केवल ओ. एम. आर. उत्तर-पत्रक (OMR Answer Sheet) पर ही दिये जाने हैं। उत्तर-पत्रक में निर्धारित स्थान के अलावा अन्यत्र कहीं पर दिया गया उत्तर मान्य नहीं होगा।
7. ओ. एम. आर. उत्तर-पत्रक (OMR Answer Sheet) पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाये।
8. परीक्षा समाप्ति के उपरान्त परीक्षार्थी कक्ष निरीक्षक को अपनी OMR Answer Sheet उपलब्ध कराने के बाद ही परीक्षा कक्ष से प्रस्थान करें। परीक्षार्थी अपने साथ प्रश्न-पुस्तिका ले जा सकते हैं।
9. निगेटिव मार्किंग नहीं है।
10. कोई भी रफ कार्य, प्रश्न-पुस्तिका के अन्त में, रफ-कार्य के लिए दिए खाली पेज पर ही किया जाना चाहिए।
11. परीक्षा-कक्ष में लॉग-बुक, कैलकुलेटर, पेजर तथा सेल्युलर फोन ले जाना तथा उसका उपयोग करना वर्जित है।
12. प्रश्न के हिन्दी एवं अंग्रेजी रूपान्तरण में भिन्नता होने की दशा में प्रश्न का अंग्रेजी रूपान्तरण ही मान्य होगा।

महत्वपूर्ण : प्रश्नपुस्तिका खोलने पर प्रथमतः जाँच कर देख लें कि प्रश्न-पुस्तिका के सभी पृष्ठ भलीभाँति छपे हुए हैं। यदि प्रश्नपुस्तिका में कोई कमी हो, तो कक्षनिरीक्षक को दिखाकर उसी सिरिज की दूसरी प्रश्न-पुस्तिका प्राप्त कर लें।