

Roll No.

Question Booklet Number

O. M. R. Serial No.

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Question Booklet Number

M. Sc. (Second Semester)
(NEP) EXAMINATION, 2025-26
BOTANY

(Biodiversity and Environmental Pollution)

Paper Code							
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Questions Booklet Series
D

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 हों या उसमें किसी अन्य प्रकार की कमी हो, तो उसे तुरन्त बदल लें।

(Remaining instructions on the last page)

(शेष निर्देश अन्तिम पृष्ठ पर)

(Only for Rough Work)

1. What are particulate pollutants ?
 - (A) Gaseous pollutants
 - (B) Solid or liquid particles suspended in air
 - (C) Liquid pollutants
 - (D) Radioactive pollutants
2. Which organization designates biosphere reserves ?
 - (A) IUCN
 - (B) WWF
 - (C) UNESCO
 - (D) UNEP
3. What is a long-term benefit of reducing acid rain precursors ?
 - (A) Improved air quality
 - (B) Increased soil erosion
 - (C) Decreased crop yield
 - (D) Increased water pollution
4. Who launched the Ganga Action Plan ?
 - (A) Indira Gandhi
 - (B) Narendra Modi
 - (C) Atal Bihari Vajpayee
 - (D) Rajiv Gandhi
5. The greatest air pollution disaster during recent years had been witnessed in :
 - (A) Calcutta
 - (B) Bhopal
 - (C) Ahmedabad
 - (D) Agra
6. Major source of atmospheric methane in India is :
 - (A) Wheat fields
 - (B) Fruit orchards
 - (C) Rice fields
 - (D) Sugarcane fields
7. Itai-itai disease is associated with :
 - (A) Hg pollution
 - (B) Cd pollution
 - (C) Pb pollution
 - (D) Se pollution
8. Major pollutant emitted by automobiles is :
 - (A) CO
 - (B) SO₂
 - (C) CO₂
 - (D) NO₂
9. Which of the following is a non-biodegradable material ?
 - (A) Cloth
 - (B) Leather
 - (C) Wood
 - (D) Lead
10. The term 'Biodiversity' was coined by :
 - (A) Wilson
 - (B) Thomas Lovejoy
 - (C) W.G. Rosen
 - (D) Thomas Rosev

11. National Botanical Research Institute is located in :
- (A) Lucknow
 - (B) Dehradun
 - (C) Saharanpur
 - (D) Bengaluru
12. What is the full form of BOD ?
- (A) Biological Ozone Demand
 - (B) Biological Oxygen Demand
 - (C) Biotic Oxygen Demand
 - (D) Biological Oxygen Deficiency
13. Smog is caused by :
- (A) Depletion of ozone layer
 - (B) Presence of high humidity in atmosphere
 - (C) Accumulation of CO₂ in atmosphere
 - (D) Rapid buildup of products of photochemical oxidation of pollutants in atmosphere
14. The most important strategy for the conservation of biodiversity is the establishment of :
- (A) Botanical gardens
 - (B) National parks
 - (C) Biosphere reserves
 - (D) Wildlife sanctuaries
15. Water pollution is best assessed by determining :
- (A) DO and BOD
 - (B) BOD and turbidity
 - (C) DO and acidity
 - (D) Hardness and alkalinity
16. What is the role of stratospheric zone ?
- (A) Regulates earth's temperature
 - (B) Protects from UV radiation
 - (C) Causes acid rain
 - (D) Contributes to climate change
17. What is the main cause of species extinction ?
- (A) Habitat destruction
 - (B) Climate change
 - (C) Overexploitation
 - (D) Pollution
18. What is the primary cause of indoor air pollution ?
- (A) Cooking using solid fuels
 - (B) Smoking
 - (C) Poor ventilation
 - (D) All of the above
19. IUCN works at which level ?
- (A) National Level
 - (B) Local Level
 - (C) Village Level
 - (D) International Level

20. Which among these is the impact of acid rain on human health ?
- (A) Risk of waterborne diseases
 - (B) Risk of cardiovascular diseases
 - (C) Increased risk of respiratory diseases
 - (D) No impact
21. Which of the following is a notable National Park in India known for its tiger population ?
- (A) Sunderbans National Park
 - (B) Gir National Park
 - (C) Ranjit Sagar National Park
 - (D) Kaziranga National Park
22. Which of the following is a consequence of ozone depletion ?
- (A) Decreased UV radiation
 - (B) Increased UV radiation
 - (C) Decreased acid rain
 - (D) Increased greenhouse effect
23. Which river is considered the most sacred in India ?
- (A) Ganga
 - (B) Yamuna
 - (C) Godavari
 - (D) Brahmaputra
24. What is the primary purpose of a National Park ?
- (A) Tourism
 - (B) Urban development
 - (C) Conservation of wildlife and natural habitats
 - (D) Agriculture
25. Which of the following materials can be recycled ?
- (A) Plastic
 - (B) Paper
 - (C) Glass
 - (D) All of the above
26. What is the main cause of pollution in the Ganga River ?
- (A) Industrial effluents
 - (B) Domestic sewage
 - (C) Agricultural run off
 - (D) All of the above
27. Which pollutant is not typically included in AQI calculations ?
- (A) PM 2.5
 - (B) NO₂
 - (C) O₃
 - (D) CO₂

28. Which international agreement aims to reduce emissions contributing to acid rain ?
- (A) Paris Agreement
 - (B) Convention on-long-range Trans boundary Air Pollution
 - (C) Kyoto Protocol
 - (D) Montreal Protocol
29. What is the range of AQI values that indicates good air quality ?
- (A) 0-50
 - (B) 51-100
 - (C) 101-200
 - (D) 201-300
30. What is the term for the process of converting waste into a nutrient-rich soil amendment ?
- (A) Recycling
 - (B) Incineration
 - (C) Composting
 - (D) Landfilling
31. Which of the following is an IUCN category ?
- (A) Common
 - (B) Rare
 - (C) Abundant
 - (D) Near threatened
32. The term used for the practice of using treated waste water for non-potable purposes is :
- (A) Water conservation
 - (B) Water recycling
 - (C) Water harvesting
 - (D) Water treatment
33. What is the term for waste that is non-biodegradable waste such as food waste or leaves ?
- (A) Non-biodegradable waste
 - (B) Inorganic waste
 - (C) Organic waste
 - (D) Hazardous waste
34. Which of the following is a consequence of acid rain ?
- (A) Soil enrichment
 - (B) Increased crop yield
 - (C) Damage to aquatic life
 - (D) Improved water quality
35. When was the Ganga Action Plan launched ?
- (A) 1986
 - (B) 1993
 - (C) 1998
 - (D) 2001

36. The term used for the protection and preservation of natural ecosystems is
- (A) Preservation
 - (B) Conservation
 - (C) Restoration
 - (D) Management
37. Which of the following is a source of soil pollution ?
- (A) Heavy metals
 - (B) Industrial chemicals
 - (C) Pesticides
 - (D) All of the above
38. What is the term for the introduction of non-native species that harm native ecosystems ?
- (A) Invasive species
 - (B) Extinct species
 - (C) Endangered species
 - (D) Threatened species
39. The World Wildlife Fund (WWF) has which animal as its logo ?
- (A) Tiger
 - (B) Polar Bear
 - (C) Giant Panda
 - (D) Red Panda
40. The 'Biological Diversity Act' was passed by the Indian parliament in :
- (A) 1992
 - (B) 2002
 - (C) 2010
 - (D) 2014
41. Which activity is NOT allowed in National Parks ?
- (A) Tourism
 - (B) Wild Life Conservation
 - (C) Research
 - (D) Hunting
42. What is the main objective of the "MAB" program of UNESCO ?
- (A) Conservation of biosphere reserves
 - (B) Mapping of all forests
 - (C) Ocean cleaning
 - (D) Controlling pollution in cities
43. Which National Park in India is known as the "Land of the Tiger" inspired the Jungle Book by Rudyard Kipling ?
- (A) Kanha National Park
 - (B) Panna National Park
 - (C) Bandhavgarh National Park
 - (D) Pench National Park

44. How many biodiversity hotspots are currently recognized globally ?
- (A) 25
(B) 34
(C) 36
(D) 40
45. What is the main driver of species extinction ?
- (A) Overexploitation
(B) Habitat destruction
(C) Human population growth
(D) Climate change
46. What is the benefit of rainwater harvesting ?
- (A) Reduced water scarcity
(B) Decreased water quality
(C) Increased water bills
(D) Increased flood risk
47. What is the term for pollution that comes from a single source ?
- (A) Diffuse pollution
(B) Non-point source pollution
(C) Transboundary pollution
(D) Point source pollution
48. What is the main purpose of Red Data Book ?
- (A) To list extinct species
(B) To raise awareness about endangered species
(C) To promote hunting
(D) To provide information on wildlife trade
49. Which international agreement aims to conserve and sustainably use biodiversity ?
- (A) Convention on Biological Diversity
(B) Kyoto Protocol
(C) Paris Agreement
(D) Convention on International trade in endangered species
50. What is the term for the process of converting forests to agricultural land or urban areas ?
- (A) Afforestation
(B) Reforestation
(C) Deforestation
(D) Desertification

51. Which of the following is NOT a water pollutant ?
- (A) Chromium
 - (B) Silt
 - (C) Arsenic
 - (D) Glacier
52. Which of the following is a major threat to marine biodiversity ?
- (A) Soil erosion
 - (B) Deforestation
 - (C) Desertification
 - (D) Overfishing
53. What is the primary objective of Ganga Action plan ?
- (A) To increase water flow
 - (B) To promote tourism
 - (C) To improve water quality
 - (D) To generate electricity
54. Who is responsible for managing national parks and sanctuaries in India ?
- (A) Ministry of Environment and Forest
 - (B) State governments
 - (C) Local communities
 - (D) NGOs
55. How often is the Red Data Book updated ?
- (A) Annually
 - (B) Biennially
 - (C) Rarely
 - (D) Periodically
56. Which of the following wastes can be decomposed by bacteria ?
- (A) Ashes
 - (B) Foodwaste
 - (C) Rubbish
 - (D) Radioactive Substance
57. Which of the following best describes an endemic species ?
- (A) Species restricted in a particular area
 - (B) Species found in multiple regions
 - (C) Migratory species
 - (D) Species that has gone extinct
58. Which of the following best defines biodiversity ?
- (A) The variety of ecosystems in a region
 - (B) The number of species in a specific area
 - (C) The diversity of life forms on earth
 - (D) The genetic variation within a species

59. The structure used traditionally to harvest rain water in our country is :
- (A) Tubewell
 - (B) Stepwell
 - (C) Borewell
 - (D) Handpump
60. The only gas in the atmosphere that can absorb the sun's dangerous radiation is :
- (A) Carbon di-oxide
 - (B) Nitrogen
 - (C) Nitrous oxide
 - (D) Ozone
61. Which of the following is a method of ex-situ conservation ?
- (A) National Park
 - (B) Gene Bank
 - (C) Wildlife sanctuary
 - (D) Sacred grove
62. What is a common way to treat waste water ?
- (A) Chemical treatment and filtration
 - (B) Dumping it in the ocean
 - (C) Burning it
 - (D) Ignoring it
63. Which of the following can be recycled many times ?
- (A) Wood
 - (B) Plastic
 - (C) Aluminium
 - (D) Organic materials
64. Which of the following solid wastes describes the term "Municipal Solid Waste" ?
- (A) Toxic
 - (B) Hazardous
 - (C) Non-toxic
 - (D) Non - hazardous
65. Which of the following rivers is called the world's most polluted river ?
- (A) Cauvery River
 - (B) Ganga River
 - (C) Yamuna River
 - (D) Chenab River
66. Land pollution in which land is unsuitable for farming due to high salt content is known as :
- (A) Salinization
 - (B) Desertification
 - (C) Carbonization
 - (D) Oxygenation

67. What is the purpose of afforestation ?
- (A) To reduce green spaces
 - (B) To increase pollution
 - (C) To absorb pollutants
 - (D) To decrease biodiversity
68. What is the alternative to CFCs in refrigeration ?
- (A) HCFCs
 - (B) CO₂
 - (C) NO₂
 - (D) None of the above
69. What is the purpose of adding limestone in lakes to mitigate acid rain effects ?
- (A) To increase water acidity
 - (B) To decrease water pH
 - (C) To neutralize lake acidity
 - (D) To promote algal growth
70. What is the role of bacteria in water pollution ?
- (A) They purify water
 - (B) They contaminate water
 - (C) They have no impact on water
 - (D) They increase water pollution
71. Which of the following is a water borne disease ?
- (A) Cholera
 - (B) Typhoid
 - (C) Dysentery
 - (D) All of the above
72. What is the impact of particulate pollutants on environment ?
- (A) Reduces visibility
 - (B) Affects climate change
 - (C) Affects ecosystem
 - (D) All of the above
73. What is composting ?
- (A) Burning organic waste
 - (B) Disposing of organic waste in landfills
 - (C) Converting organic waste into manure
 - (D) Recycling inorganic waste
74. Which of the following is a type of air pollution control device ?
- (A) Electrostatic precipitator
 - (B) Cyclone separator
 - (C) Fabric filter
 - (D) All of the above
75. What is the primary source of CO emissions ?
- (A) Vehicle emissions
 - (B) Industrial processes
 - (C) Power plants
 - (D) All of the above

76. What is acid rain ?
- (A) Rain with high pH
 - (B) Rain with low pH
 - (C) Rain with neutral pH
 - (D) Rain with no pH
77. What is the purpose of waste segregation ?
- (A) To mix all types of waste
 - (B) To dispose waste quickly
 - (C) To increase waste generation
 - (D) To separate recyclable waste
78. What is the role of catalytic converters in vehicles ?
- (A) To increase emissions
 - (B) To improve fuel efficiency
 - (C) To reduce emissions
 - (D) To decrease engine performance
79. What is the primary goal of air pollution mitigation ?
- (A) To improve air quality
 - (B) To increase industrial production
 - (C) To reduce greenhouse gas emission
 - (D) To decrease energy consumption
80. What is recycling ?
- (A) Disposing of waste in landfills
 - (B) Converting waste into new products
 - (C) Reducing waste generation
 - (D) Burning waste in incinerators
81. Soil pollution can be controlled by :
- (A) Reducing, reusing and recycling of wastes
 - (B) Conducting awareness programs
 - (C) Production of biogas from agriculture waste
 - (D) All of the above
82. The term "Carbon footprint" refers to :
- (A) The amount of carbon in the soil
 - (B) Size of a carbon atom
 - (C) Total greenhouse gas emissions caused by an individual or organization
 - (D) Carbon content in plants
83. Which country among the following has the highest bio-diversity ?
- (A) Brazil
 - (B) India
 - (C) South Africa
 - (D) Russia
84. Which one of the following is NOT an in-situ conservation method ?
- (A) Biosphere Reserves
 - (B) National Parks
 - (C) Sanctuaries
 - (D) Zoo

85. The yellowness of Taj Mahal is an effect of :
- (A) Allergens
 - (B) Acid rain
 - (C) Ozone depletion
 - (D) None of the above
86. What is the name of the process to clean water using filters ?
- (A) Sublimation
 - (B) Oxidation
 - (C) Purification
 - (D) Rainwater harvesting
87. Which Indian state has the highest number of National parks ?
- (A) Madhya Pradesh
 - (B) Assam
 - (C) Andaman and Nicobar Islands
 - (D) Tamil Nadu
88. The "Great Pacific Garbage Patch" is primarily composed of :
- (A) Paper
 - (B) Microplastics
 - (C) Metal scraps
 - (D) Food waste
89. Which is the oldest Botanical Garden of the world ?
- (A) Indian Botanical Garden, Howrah
 - (B) Orto Botanical Garden, Padua
 - (C) Botanical Garden Heidelberg, Germany
 - (D) Royal Botanical Garden, Kew
90. As a pollutant, which of the following causes Minamata disease ?
- (A) Arsenic
 - (B) Mercury
 - (C) Copper
 - (D) Lead
91. Which one of the following is celebrated as World Environment Day ?
- (A) April 22
 - (B) December 5
 - (C) June 5
 - (D) March 16
92. Which among the following is a consequence of acid rain ?
- (A) Damages to buildings and infrastructure
 - (B) Increase in aquatic life
 - (C) Improvement in water quality
 - (D) Reduction in greenhouse gases

93. What is expected outcome of reducing CFC emissions ?
- (A) Ozone layer will recover
 - (B) Depletion of ozone layer will increase
 - (C) Acid rain will increase
 - (D) Greenhouse gases will increase
94. What is eutrophication ?
- (A) Increase in nutrient levels in water
 - (B) Decrease in nutrient levels in water
 - (C) Increase in oxygen levels in water
 - (D) Decrease in oxygen levels in water
95. Which of the following is a type of waste that requires special collection and disposal ?
- (A) Organic waste
 - (B) Hazardous waste
 - (C) Recyclable waste
 - (D) Construction waste
96. Which of the following is a natural source of air pollution ?
- (A) Car exhaust
 - (B) Factories
 - (C) Buring of trash
 - (D) Volcanic eruptions
97. In 1984 the Bhopal gas tragedy took place because methyl isocyanate :
- (A) Reacted with ammonia
 - (B) Reacted with water
 - (C) Reacted with DDT
 - (D) Reacted with CO₂
98. What is a Greenhouse made up of ?
- (A) Bricks
 - (B) Steel
 - (C) Glass
 - (D) Copper
99. What is the phenomenon called when the radiation absorbed by the atmosphere is re-radiated towards the surface of the earth ?
- (A) Greenhouse effect
 - (B) Newton effect
 - (C) Smog
 - (D) Darwin effect
100. Which of the following is a suitable use of harvested rainwater ?
- (A) Drinking
 - (B) Cooking
 - (C) Washing clothes
 - (D) Flushing toilets

(Only for Rough Work)

4. Four alternative answers are mentioned for each question as—A, B, C & D in the 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.

- Each question carries equal marks. Marks will be awarded according to the number of correct answers you have.
- 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.
- Before writing anything on the OMR Answer Sheet, all the instructions given in it should be read carefully.
- 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.
- There will be no negative marking.
- Rough work, if any, should be done on the blank pages provided for the purpose in the booklet.
- To bring and use of log-book, calculator, pager and cellular phone in examination hall is prohibited.
- 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 सही उत्तर छँटना 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, उन्हें निरस्त कर दिया जाएगा।

- प्रत्येक प्रश्न के अंक समान हैं। आपके जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।
- 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।
- ओ. एम. आर. उत्तर-पत्रक (OMR Answer Sheet) पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाये।
- 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।
- निगेटिव मार्किंग नहीं है।
- कोई भी रफ कार्य, प्रश्न-पुस्तिका के अन्त में, रफ-कार्य के लिए दिए खाली पेज पर ही किया जाना चाहिए।
- परीक्षा-कक्ष में लॉग-बुक, कैलकुलेटर, पेजर तथा सेल्युलर फोन ले जाना तथा उसका उपयोग करना वर्जित है।
- 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 सिरीज की दूसरी प्रश्न-पुस्तिका प्राप्त कर लें।