Roll No. .....

Question Booklet Number

O. M. R. Serial No. | | | | | | | |

M. Sc. (Fourth Semester)
(NEP) EXAMINATION, 2025-26
BOTANY
(Conservation And Restoration Ecology)

Paper Code							
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Questions Booklet Series

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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. Conservation planning requires integration of :

(A) Ecological, economic and social factors

(B) Only economic factors

(C) Only industrial factors

(D) Only agricultural factors

2. Community participation in conservation is important because :

(A) Local people depend on natural resources

(B) It increases deforestation

(C) It promotes mining

(D) It decreases biodiversity

3. The concept of sustainable development became widely known after the :

(A) Kyoto Protocol

(B) Brundtland Report

(C) Paris Agreement

(D) Montreal Protocol

4. Sustainable development refers to development that :

(A) Uses unlimited natural resources

(B) Meets present needs without harming future generations

(C) Focuses only on economic growth

(D) Eliminates natural ecosystems

5. Site management plans are prepared mainly to :

(A) Control population growth

(B) Manage and protect specific conservation areas

(C) Promote urbanization

(D) Increase agricultural land

6. Conservation planning generally begins with :

(A) Habitat destruction

(B) Goal identification and assessment

(C) Industrial investment

(D) Mining development

7. The main aim of conservation management is to :

(A) Exploit natural resources rapidly

(B) Maintain biodiversity and ecosystem functions

(C) Destroy habitats

(D) Promote urban growth

8. Conservation strategy refers to :

(A) Planned actions to protect biodiversity

(B) Increasing industrial expansion

(C) Promoting deforestation

(D) Increasing pollution

9. Botanical gardens and seed banks are examples of :

(A) In-situ conservation

(B) Ex-situ conservation

(C) Habitat degradation

(D) Industrial conservation

10. Ex-situ conservation involves :

(A) Protecting species in their natural habitat

(B) Conserving species outside natural habitats

(C) Industrial farming

(D) Habitat destruction

11. Corridors between protected areas help in :

(A) Preventing migration

(B) Reducing biodiversity

(C) Increasing habitat destruction

(D) Facilitating movement of organisms

12. Habitat fragmentation generally leads to :

(A) Increased biodiversity

(B) Reduced habitat connectivity

(C) Unlimited species growth

(D) Increased gene flow

13. A keystone species is one that :

(A) Has very little effect on ecosystem

(B) Plays a crucial role in maintaining ecosystem structure

(C) Exists in very small numbers

(D) Has no ecological function

14. The SLOSS debate in conservation biology refers to :

(A) Single Large or Several Small reserves

(B) Soil loss in forests

(C) Species loss due to climate change

(D) Small land size optimization

15. The theory of reserve design is concerned with :

(A) Planning protected areas for biodiversity conservation

(B) Designing industrial cities

(C) Agricultural land planning

(D) Urban infrastructure

16. Wildlife sanctuaries differ from national parks because :

(A) They allow limited human activities

(B) They allow heavy industrial activities

(C) They permit urban construction

(D) They eliminate all wildlife

17. National parks are established mainly for :

(A) Wildlife conservation and ecosystem protection

(B) Industrial development

(C) Urban settlement

(D) Mining activities

18. A protected area is defined as :

(A) Land used for industrial production

(B) Area managed for conservation of biodiversity

(C) Land used only for agriculture

(D) Area used for mining

19. Habitat conservation aims to :

(A) Protect the natural environment where species live

(B) Destroy ecosystems

(C) Promote urban expansion

(D) Increase pollution

20. Endemic species are those that :

(A) Occur only in a particular geographic region

(B) Occur everywhere on Earth

(C) Migrate frequently

(D) Live only in oceans

21. A species that is at high risk of extinction in the near future is called :

(A) Endemic species

(B) Endangered species

(C) Dominant species

(D) Keystone species

22. Species conservation focuses mainly on :

(A) Increasing industrial development

(B) Preventing extinction of species.

(C) Promoting deforestation

(D) Reducing biodiversity

23. Fragmentation of habitat can lead to :

(A) Increased gene flow

(B) Isolation of populations and genetic loss

(C) Unlimited population growth

(D) Decrease in extinction risk

24. Which method is commonly used to estimate wildlife population size ?

(A) Mark-recapture method

(B) Industrial census

(C) Soil testing

(D) Remote mining

25. Habitat-specific demography studies :

(A) Population characteristics in particular habitats

(B) Industrial population growth

(C) Global biodiversity only

(D) Climatic variation only

26. Density-dependent factors affecting populations include :

(A) Earthquakes

(B) Floods

(C) Competition for resources

(D) Volcanic eruptions

27. Carrying capacity of an ecosystem refers to :

(A) Maximum population size an environment can sustain

(B) Minimum population size

(C) Total number of ecosystems

(D) Rate of migration

28. Inbreeding depression results in :

(A) Increased survival

(B) Reduced fitness and reproduction

(C) Increased biodiversity

(D) Faster evolution

29. Which of the following causes reduction in genetic variation ?

(A) Mutation

(B) Gene flow

(C) Inbreeding

(D) Migration

30. Population viability analysis (PVA) is used to :

(A) Predict extinction risk of species

(B) Increase agricultural production

(C) Control climate change

(D) Measure soil fertility

31. In conservation biology, the minimum viable population (MVP) refers to :

(A) Smallest population able to survive long term

(B) Largest population in ecosystem

(C) Population with highest genetic diversity

(D) Population without predators

32. Loss of genetic diversity in small populations is mainly due to :

(A) Genetic drift

(B) Mutation

(C) Natural selection

(D) Migration

33. Genetic variation in populations is important because it :

(A) Reduces adaptability

(B) Increases survival and evolutionary potential

(C) Causes extinction

(D) Stops natural selection

34. Which factor directly increases population size ?

(A) Mortality

(B) Emigration

(C) Immigration

(D) Predation

35. The number of individuals of a species per unit area is called :

(A) Population density

(B) Population niche

(C) Population niche width

(D) Habitat diversity

36. Population dynamics refers to the study of :

(A) Changes in population size and structure over time

(B) Industrial population growth

(C) Only plant distribution

(D) Only animal behavior

37. Conservation ecology is important because it :

(A) Prevents ecosystem degradation and species extinction

(B) Promotes pollution

(C) Reduces biodiversity intentionally

(D) Eliminates natural habitats

38. Which ethical principle emphasizes sustainable use of resources ?

(A) Stewardship principle

(B) Exploitation principle

(C) Industrial principle

(D) Extraction principle

39. One of the basic postulates of conservation biology is that :

(A) Evolutionary processes must be maintained

(B) Biodiversity has no value

(C) Species extinction is desirable

(D) Ecosystems should remain static

40. The precautionary principle in conservation suggests that :

(A) Development should proceed without concern

(B) Lack of full scientific certainty should not delay environmental protection

(C) Conservation actions should be avoided

(D) Natural resources should be exploited immediately

41. Conservation ecology integrates principles mainly from :

(A) Ecology and genetics

(B) Economics only

(C) Chemistry only

(D) Engineering

42. Which approach considers humans as the central focus of conservation value ?

(A) Biocentric approach

(B) Ecocentric approach

(C) Anthropocentric approach

(D) Ecosystem approach

43. The ethical view that nature has intrinsic value independent of human use is called :

(A) Anthropocentrism

(B) Biocentrism

(C) Industrialism

(D) Utilitarianism

44. Conservation biology emerged as a scientific discipline mainly in the :

(A) 18th century

(B) 19th century

(C) 20th century

(D) 17th century

45. Which level of biodiversity refers to variation within a species ?

(A) Ecosystem diversity

(B) Species diversity

(C) Genetic diversity

(D) Landscape diversity

46. The concept that humans have moral responsibility to protect nature is known as :

(A) Environmental ethics

(B) Industrial ethics

(C) Economic ethics

(D) Agricultural ethics

47. Conservation ethics mainly emphasize :

(A) Unlimited resource exploitation

(B) Responsible use and protection of nature

(C) Complete human control over ecosystems

(D) Industrial growth

48. The term biodiversity includes :

(A) Only plant diversity

(B) Only animal diversity

(C) Genetic, species and ecosystem diversity

(D) Only microbial diversity

49. Biodiversity conservation primarily aims to :

(A) Increase monoculture farming

(B) Maintain genetic, species and ecosystem diversity

(C) Promote deforestation

(D) Reduce ecosystem complexity

50. Conservation ecology mainly deals with :

(A) Industrial development

(B) Protection and management of biodiversity

(C) Urban expansion

(D) Mining resources

51. Successful ecosystem restoration requires :

(A) Habitat destruction

(B) Industrial expansion

(C) Scientific planning and community participation

(D) Overexploitation of resources

52. Climate change can accelerate ecosystem degradation by :

(A) Altering temperature and rainfall patterns

(B) Increasing biodiversity

(C) Stabilizing ecosystems

(D) Preventing disturbances

53. Ecosystem services provided by restored ecosystems include :

(A) Water purification and soil conservation

(B) Increased pollution

(C) Habitat destruction

(D) Reduced biodiversity

54. Restoration of degraded forests may involve :

(A) Urban expansion

(B) Clearing vegetation

(C) Mining activities

(D) Planting native species

55. Which of the following helps control desertification ?

(A) Soil conservation and vegetation cover

(B) Deforestation

(C) Overgrazing

(D) Industrial waste dumping

56. Rehabilitation of degraded land involves :

(A) Mining activities

(B) Increasing urban expansion

(C) Removing vegetation

(D) Improving land productivity and ecological function

57. Sustainable land management aims to :

(A) Promote soil erosion

(B) Prevent land degradation

(C) Increase pollution

(D) Reduce biodiversity

58. Wetland restoration helps in :

(A) Improving water quality and biodiversity

(B) Increasing pollution

(C) Destroying aquatic life

(D) Eliminating vegetation

59. Afforestation is the process of :

(A) Planting trees in barren land

(B) Removing forests

(C) Increasing industrial land

(D) Soil erosion

60. Habitat restoration aims to :

(A) Promote mining

(B) Increase urban construction

(C) Recover natural habitats

(D) Destroy vegetation

61. Overexploitation of natural resources leads to :

(A) Resource depletion

(B) Increased biodiversity

(C) Ecosystem stability

(D) Increased soil fertility

62. Pollution can cause ecosystem degradation by :

(A) Improving ecosystem stability

(B) Increasing biodiversity

(C) Contaminating air, water and soil

(D) Increasing nutrient balance

63. Land degradation leads to :

(A) Loss of soil fertility

(B) Increase in biodiversity

(C) Improved ecosystem productivity

(D) Higher rainfall

64. Desertification mainly occurs due to :

(A) Overgrazing and deforestation

(B) Increased rainfall

(C) Forest conservation

(D) Soil protection

65. Major causes of ecosystem degradation include :

(A) Deforestation

(B) Soil conservation

(C) Wildlife protection

(D) Habitat restoration

66. Ecosystem degradation refers to :

(A) Increase in soil fertility

(B) Increase in biodiversity

(C) Natural ecosystem growth

(D) Decline in ecosystem quality and function

67. Long-term restoration projects require :

(A) Continuous monitoring and management

(B) Immediate abandonment

(C) Only economic investment

(D) No scientific involvement

68. Restoration success is evaluated mainly through :

(A) Industrial productivity

(B) Monitoring ecological recovery

(C) Population growth in cities

(D) Mining output

69. Hydrological restoration focuses on restoring :

(A) Industrial pipelines

(B) Water flow and wetlands

(C) Road networks

(D) Urban drainage systems

70. Biological restoration techniques include :

(A) Planting native species

(B) Soil mining

(C) Industrial waste dumping

(D) Habitat destruction

71. Which method helps restore degraded land ?

(A) Revegetation

(B) Deforestation

(C) Mining

(D) Urban expansion

72. A reference ecosystem in restoration ecology is :

(A) An industrial ecosystem

(B) A polluted ecosystem

(C) A destroyed ecosystem

(D) A model ecosystem used as a target for restoration

73. Soil stabilization is important in restoration because it :

(A) Promotes desertification

(B) Increases pollution

(C) Reduces vegetation growth

(D) Prevents soil erosion

74. Assisted natural regeneration means :

(A) Allowing natural recovery with minimal human help

(B) Complete artificial ecosystem creation

(C) Industrial land development

(D) Removal of all plants

75. Removal of invasive species is necessary in restoration because it :

(A) Allows native species to recover

(B) Reduces soil fertility

(C) Promotes habitat degradation

(D) Decreases biodiversity

76. Ecosystem reconstruction involves :

(A) Industrial development

(B) Rebuilding ecosystems using ecological principles

(C) Habitat destruction

(D) Urban planning

77. Which of the following is an important goal of ecological restoration ?

(A) Eliminating biodiversity

(B) Restoring ecosystem structure and function

(C) Increasing pollution

(D) Reducing vegetation cover

78. Reforestation refers to :

(A) Planting trees in deforested areas

(B) Removing vegetation

(C) Increasing urban settlements

(D) Soil erosion

79. Restoration ecology mainly focuses on :

(A) Repairing damaged ecosystems

(B) Increasing mining activities

(C) Industrial expansion

(D) Habitat destruction

80. Ecological restoration aims to :

(A) Promote urbanization

(B) Increase industrial development

(C) Recover degraded ecosystems

(D) Reduce biodiversity

81. Recovery of ecosystems after disturbance depends mainly on :

(A) Species diversity and environmental conditions

(B) Industrial development

(C) Urban growth

(D) Mining activities

82. Anthropogenic disturbances are caused by :

(A) Natural processes

(B) Human activities

(C) Climate cycles

(D) Geological forces

83. Large-scale disturbances can alter :

(A) Ecosystem structure and function

(B) Only soil color

(C) Only temperature

(D) Only rainfall

84. The intermediate disturbance hypothesis states that :

(A) Biodiversity is highest at moderate disturbance levels

(B) Biodiversity is highest at extreme disturbance levels

(C) Biodiversity is lowest without disturbance

(D) Disturbance has no effect

85. Edge effects occur mainly due to :

(A) Ocean currents

(B) Habitat fragmentation

(C) Soil erosion

(D) Atmospheric pressure

86. Habitat fragmentation results in :

(A) Continuous habitats

(B) Isolation of populations

(C) Increased gene flow

(D) Unlimited species growth

87. Which disturbance often leads to secondary succession ?

(A) Glacial retreat

(B) Volcanic lava flow

(C) Forest fire

(D) Formation of new islands

88. Secondary succession occurs when :

(A) Life colonizes newly formed land

(B) Ecosystem recovers after disturbance

(C) Species disappear permanently

(D) Soil is absent

89. Resistance in ecology refers to :

(A) Ability to avoid change during disturbance

(B) Ability to destroy ecosystems

(C) Ability to increase disturbance

(D) Loss of biodiversity

90. Resilience of an ecosystem refers to :

(A) Resistance to disturbance

(B) Ability to recover after disturbance

(C) Rate of species extinction

(D) Decrease in productivity

91. Ecosystem stability refers to the ability of an ecosystem to :

(A) Remain unchanged forever

(B) Resist or recover from disturbances

(C) Eliminate biodiversity

(D) Stop nutrient cycles

92. Human-induced disturbances include :

(A) Floods

(B) Earthquakes

(C) Deforestation

(D) Volcanic eruptions

93. Which of the following is a natural disturbance ?

(A) Mining

(B) Urbanization

(C) Forest fire

(D) Industrial waste

94. Ecological disturbance is defined as :

(A) Stable ecosystem condition

(B) Event that disrupts ecosystem structure or function

(C) Absence of species

(D) Lack of nutrients

95. Long-term monitoring in conservation helps to :

(A) Evaluate success of management strategies

(B) Promote deforestation

(C) Increase industrial growth

(D) Reduce biodiversity

96. Sustainable resource use means :

(A) Unlimited exploitation

(B) Using resources without degrading ecosystems

(C) Destroying habitats

(D) Stopping all human activities

97. Adaptive management involves :

(A) Fixed conservation plans

(B) Flexible strategies based on monitoring results

(C) Ignoring environmental changes

(D) Preventing scientific research

98. A management plan in conservation usually includes :

(A) Objectives, strategies and monitoring

(B) Only objectives

(C) Only funding details

(D) Only species list

99. Environmental impact assessment (EIA) is used to :

(A) Predict environmental consequences of projects

(B) Increase industrial waste

(C) Destroy habitats

(D) Reduce biodiversity

100. The ecosystem approach in conservation emphasizes :

(A) Managing ecosystems as integrated systems

(B) Destroying ecosystems

(C) Ignoring biodiversity

(D) Increasing industrial production

(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.

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 सही उत्तर छाँटना 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।

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 सिरीज की दूसरी प्रश्न-पुस्तिका प्राप्त कर लें।