

**M.Sc. ENVIRONMENTAL SCIENCES  
SECOND SEMESTER  
NATURAL RESOURCES AND BIODIVERSITY  
MEV-201**

Duration : 3 hrs.

Full Marks: 70

Time : 20 min.

( PART-A: Objective )

Marks : 20

Choose the correct answer from the following:

1X20=20

- Tidal power is a -
  - Maintainable resource
  - Non-maintainable resource
  - Mutable resource
  - Immutable resource
- Variation within a trophic level is an example of -
  - Genetic Diversity
  - Animal Diversity
  - Ecosystem Diversity
  - All of these
- $\beta$ -richness of a species hangs on -
  - Habitat modification
  - Physical factors
  - Species itself
  - Chemical factors
- Eco-tourism enhances \_\_\_\_ value of biodiversity.
  - Social
  - Ethical
  - Aesthetic
  - All of these
- India has \_\_\_\_ number of flagship species.
  - 3
  - 4
  - 5
  - None of these
- Critical minerals are essential for the \_\_\_\_ of a nation.
  - Economy
  - Defense
  - Power
  - All of these
- India has been placed in \_\_\_\_ position in Asia in terms of plant biodiversity.
  - 4<sup>th</sup>
  - 10<sup>th</sup>
  - 11<sup>th</sup>
  - None of these
- Floating gas holder type biogas plant has a \_\_\_\_ gas-holder.
  - Cement
  - Steel
  - Fiber
  - None of these
- Synthetic natural gas contains-
  - Carbon monoxide
  - Hydrogen
  - Methane
  - Both a & b

10. Solar furnace uses which type of reflectors?
- Concave
  - Convex
  - Plain
  - None of these
11. CITES is
- Convention on International Trade in Endangered Species of Wild Flora and Fauna
  - Convention on International Trade in Endangered Species of Wild Fauna and Flora
  - Convention on International Trade of Endangered Species
  - Conservation of International Trade of Endemic Species
12. Identify the key role players in ecotourism
- The authority
  - The local community
  - The tourists
  - All the above
13. Assertion (A): Tuber crops cannot be preserved in seed bank. Reason (R): Seed bank preserves dried seeds at very low temperature.
- both (A) and (R) are true and (R) is the correct explanation of (A)
  - both (A) and (R) are true but (R) is the not the correct explanation of (A)
  - (A) is false and only (R) is true
  - both (A) and (R) are false
14. Which technique is used to preserve the gametes of threatened species viable and fertile conditions for long periods?
- Pollen bank
  - Cryopreservation
  - Cold storage
  - None of the above
15. Which of the following is an odd one?
- Game park
  - Wildlife Safari park
  - National park
  - Zoological park
16. Identify the odd one.
- Manas
  - Kaziranga
  - Sunderbans
  - Cold Desert
17. Which of the following is not a type of gene bank?
- Tissue bank
  - Sperm bank
  - Seed bank
  - None of the above
18. In India ecologically unique and biodiversity rich regions are legally protected as
- Biosphere Reserves, National Parks & Hotspots
  - National Parks & Wildlife Sanctuaries
  - Biosphere Reserves, National Parks & Wildlife Sanctuaries
  - only Hotspots
19. (1) This place is a RAMSAR site. (2) This is also a bird sanctuary.
- Loktak Lake
  - Salt Lake
  - Deepor Beel
  - Umiam Lake



20. Assertion (A): Presently ex-situ conservation has advanced beyond keeping threatened species in enclosures.

Reason (R): Biodiversity knows no political boundaries and its conservation is a collective responsibility of all nations.

- a. both (A) and (R) are true and (R) is the correct explanation of (A)
- b. both (A) and (R) are true but (R) is the not the correct explanation of (A)
- c. (A) is false and only (R) is true
- d. both (A) and (R) are false

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( PART-B : Descriptive )

Time: 2 HRS 40 MINS

Marks : 50

[ Answer question no.(1) & any four (4) from the rest ]

1. Define wind energy. How wind energy could be harnessed? 2+8=10
2. What do you mean by geothermal energy? State the techniques for utilization of geothermal energy. 2+8=10
3. Discuss the reasons for enriched biodiversity in NE India. Why is biodiversity shrinking in NE India? 5+5=10
4. Define food resources. Enumerate the environmental impact related to food resources. 2+8=10
5. What is biosphere reserve? What are the zones of biosphere reserve? Critically discuss the role of world biosphere network in conservation of biodiversity. 3+5+2=10
6. Write a short note on (*any two*) 5+5=10
  - a) Community Conservation Area.
  - b) MAB Programme.
  - c) Sustainable Ecotourism.
7. Write a note on wildlife distribution in NE biogeographic region. Discuss the role of WWF in wildlife conservation. 5+5=10
8. What is ex-situ conservation? What are different methods of ex-situ conservation? Critically discuss the role of ex-situ methods in conservation of biodiversity. 1+3+6=10

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