

## Second Semester Examination-2018

## M.Sc. BOTANY

Paper Code: BOT-204(CBCS-ZOO)

Full Marks : 40

Time: 2 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answer in their own words as far as practicable.

Illustrate the answers whenever necessary.

Use separate Answer Scripts for Group-A &amp; Group-B

## Group A

## (Wildlife diversity and environmental management)

1. Answer any two questions from the following. 2×2=4
- Name any two National Parks of eastern India with their precise location.
  - Explain the significance of 'life cycle assessment' (LCA) in environmental management.
  - What are the criterias of a place being Hotspot?
  - What do you mean by PRA?
2. Answer any two questions from the following. 2×4
- steps for Olive Ridley turtle (*Lepidochelys olivacea*). 2+2  
Provide an account of the organization of a biosphere reserve as proposed under IUCN category V, protected area. Distinguish between core and buffer zones.
  - Write a note on thereats and conservation strategies to Vultures?
  - Mention the root causes of Wild life biodiversity loss?
  - With reference to Greenhouse gases, write about the prospective sources and environmental impacts. What is PAN? 3+1
3. Answer any one question from the following. 1×8
- Illustrate the role of zoological parks as ex situ conservation method of animals. Highlight the significance of captive breeding in conservation of threatened species. Provide an outline of radio-collar tracking of animals in wild. 3+2+3
  - What is capture recapture method? Briefly discuss the roles of Sacred groves in wild life conservation? What are the IUCN status of Musk deer & Olive Ridley turtle? 3+3+2





**Group-B**  
**(Bioinformatics)**

4. Answer any two questions from the following.  $2 \times 2 = 4$
- a) What is the function of search engine?
  - b) What is FASTA format?
  - c) Explain the structure of Gen Bank entries.
  - d) State the difference between global and Local alignment.
5. Answer any two questions from the following.  $2 \times 2 = 4$
- a) What is Bioinformatics & Explain the importance of biological database in Bioinformatics.  $1+3$
  - b) What is BLAST? Enlist the steps of BLAST though pubmed.  $2+2$
  - c) Distinguish between primary, secondary and specialised database? 4
  - d) Describe shortly the steps of constructing Phylogenetic tree. 4
6. Answer any one question from the following.  $1 \times 8 = 8$
- a) i) Write down the full forms of following:  $(\frac{1}{2} \times 4 = 2)$   
 PDB  
 OMIM  
 PUBMED  
 NCBI
  - ii) What do you mean by homology modeling? What do you understand by sensitivity and specificity in BLAST?  $2+2$
  - iii) What is e-value of alignment score? 2
  - b) Write shot notes on the following:  $(4 \times 2 = 8)$ 
    - i) Human genome project.
    - ii) PIR
    - iii) SRS
    - iv) Bionary Number system.

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