

RAMAKRISHNA MISSION VIDYAMANDIRA
(Residential Autonomous College affiliated to University of Calcutta)

SECOND YEAR [2018-21]
B.A./B.Sc. THIRD SEMESTER (July – December) 2019
Mid-Semester Examination, September 2019

Date : 19/09/2019
Time : 11 am – 12 noon

ZOOLOGY (General)

Paper : III

Full Marks : 25

Group :A

Answer **any two** questions :

[2×5]

1. Write down the histology of Thyroid gland with a suitable diagram. [3+2]
2. What are acromegaly and acromicria? Compare between Group I and Group II hormones. [2+3]
3. Describe the different stages of an Action Potential with a labelled diagram. What are neurotransmitters? What is synaptic delay? [3+1+1]
4. Depict the process of osmoregulation in fresh water teleosts. What is TMAO? Mention its role in the osmoegulation process in fish. [3+1+1]

Group :B

Answer **any three** questions :

[3×5]

5. Differentiate between the national park, wildlife sanctuary and biosphere reserve. Mention example of each. Write down the significance of red data book. [2+1.5+1.5]
6. Discuss about different types of biodiversity. Mention the biodiversity hot-spots in India. Give two examples of mammal who belong to 'Schedule-I' under WPA, India. [2+2+1]
7. What is nuptial flight? What is royal jelly? Discuss about the roles of worker bee in a bee-hive. [1+1+3]
8. What is the importance of BOD? Briefly explain the mechanism of formation of acid rain. What is PM₁₀? [2+2+1]
9. Define 'Natality' and 'Mortality'. What are the different types of population distribution? Distinguish between 'k-strategy' and 'r-strategy'. Define 'carrying capacity' of a population. [1+1+2+1]
10. Define 'Ecotone'. Mention its different types. Give the mathematical expression of species diversity index. Explain the 'Competitive Exclusion Principle' by describing Gause's experiment in brief.[1+1+1+2]

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