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BH-6512

M.Sc. (I[st] Semester) Examination, 2022

ZOOLOGY

(Principles of Ecology)

Time Allowed : Three Hours

Maximum Marks : 70

SECTION - A

(Objective Type Questions)

Note : Attempt any ten questions. Each question carries one mark. **1×10=10**

Q. 1. Fill in the blanks :

(i) Synecology is the study of _____.

(ii) Pond is an example of _____.

(iii) "Ozone Day" is observed on _____.

(iv) Father of biodiversity is _____.

(v) World summit on sustainable development (2002) was held in _____.

(vi) Who gave the terms ''Autecology'' and "Synecology" ?

(a) A.G. Tansley

(b) Karl Mobius

(c) Schroter and Kirchner

(d) A.V. Humboldt

(vii) A thin layer of ozone is present in :

(a) Troposphere

(b) Stratosphere

(c) Stratopause

(d) Mesosphere

(viii) Which of the following is the most stable ecosystem ?

(a) Desert

(b) Forest

(c) Ocean

(d) Mountain

(ix) Greenhouse effect is related to :

(a) Grasslands

(b) Global warming

(c) Greenery in country

(d) Green trees on house

(x) Which of these is an in-situ method of conservation ?

(a) National park

(b) Botanical garden

(c) Tissue culture

(d) Genetic engineering

(xi) Red Data Book provides data on :

(a) Red eyed birds

(b) Red flowered plants

(c) Red coloured fishes

(d) Endangered plants and animals

(xii) BOD stands for :

(a) Biotic oxidation demand

(b) Biochemical organic decay

(c) Biological orgnaisms death

(d) Biochemical oxygen demand

SECTION - B

(Very Short Answer Type Questions) (25-30 words)

Note : Attempt any five questions. Each question carries 2 marks. **5×2=10**

Q. 2. (i) Define the term population.

(ii) Explain commensalism.

(iii) Define biogeochemical cycle.

(iv) Describe food webs.

(v) What is biomarkers ?

(vi) What do you mean by endemic species ?

(vii) What is molecular ecology ?

SECTION - C

(Short Answer Type Questions) (250 words)

Note : Attempt any five questions. Each question carries 4 marks. **5×4=20**

Q. 3. (i) Describe limits of population growth.

(ii) Explain evolutionary ecology.

(iii) Describe nature of ecosystem.

(iv) What do you mean by global warming ?

(v) Discuss role of pesticides in agriculture.

(vi) Explain in ex-situ conservation of biodiversity.

(vii) Describe phylogeography.

SECTION - D

(Long Answer Type Questions) (More than 500 words)

Note : Attempt any three questions. Each question carries 10 marks. **3×10=30**

Q. 4. (i) Give an account of competition and coexistence with appropriate examples.

(ii) Write an essay on environmental stresses and their management.

(iii) Discuss genetic analysis of single and multiple population.

(iv) Discuss bioremediation of chemical in detail.