Roll No. _____ **Code No. Q-4404**

FOURTH SEMESTER EXAMINATION 2021-22

M.Sc. ZOOLOGY

Paper - III

Population Ecology

Time : 3.00 Hrs. **Max. Marks : 80**

Total No. of Printed Page : 03 **Mini. Marks : 29**

Note:- Question paper is divided into three sections. Attempt question of all three section as per direction Distribution of marks is given in each section.

Section 'A'

Very short answer question (in few words)

Q.1 Attempt any six questions from the following : 6x2=12

(i) Define the inter-specific competition.

(ii) Write the definition and formula of Natality.

(iii) Define the ectoparasitism with an example.

(iv) Draw a well label diagram of Quadrate.

(v) What do you mean by equilibrium population.

(vi) What is plant pollinator.

(vii) Define the exponential growth and give the example.

(viii) What is optimal foraging theory.

(ix) What is difference between density independence and density dependence.

(x) What is host-parasite dynamics.

Section 'B'

Short answer type question (in 200 words)

Q.1 Attempt any four questions from the following : 4x5=20

(i) Write the population characters.

(ii) What is stable-age distribution, explain it.

(iii) Explain the net reproductive rate.

(iv) Explain surviorship curve.

(v) Explain animal-animal interaction with examples.

(vi) Write the characters of r-selection.

(vii) What is intra-specific compition explain it with example.

(viii) What is demography ?

Section 'C'

Long answer/Essay type question. **4x12=48**

Q.3 Attempt any four questions from the following questions :

(i) Explain logestic-growth model.

(ii) Describe the evolution of mutulism.

(iii) What is niche concept ? Explain it in detail.

(iv) What is life-table ? Explain it with an example.

(v) Explain in detail social parasitism with suitable example.

(vi) Describe prey-predahor model in detail.

(vii) Describe the S-shaped and J-shaped growth curve.

(viii) Write about the extrinsic and intrinsic factors for population regulation in detail.

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