Roll No..... Total No. of Section : 03

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Code No. : B/2070

Fourth Semester Examination, May 2017

M.Sc. ZOOLOGY

Paper - III

POPULATION ECOLOGY

Time : 3 Hrs. **Max.Marks : 80**

Note : Section 'A', consists of 10 very short answer type questions, all of which are compulsory and should be attempted first. Section 'B' consists of four short answer type questions with internal options. Section 'C' consists of four long answer type questions with internal choice.

Section-'A'

Answer the following very short-answer-type questions in one or two sentences. **(2x10=20)**

Q-1. Define population density.

Q-2. What do you mean by clutch?

Q-3. What is difference between migration immigration and Emigration?

Q-4. Give at least four examples of migratory animals.

Q-5. Define Biotic Potential.

Q-6. What is ecological niche?

Q-7. State Shelford's law of tolerance.

Q-8. Differentiate between commensalism and mutualism.

Q-9. What is antibiosis?

Q-10. Differentiate between crude and ecological density.

P.T.O.

Section-'B'

Answer the following short-answer-type questions with word limit 200-250. **(5x4=20)**

Q-1. Explain different methods for determination of population density.

OR

Write a note on mortality.

Q-2. Explain importance of Age ratio in a population.

OR

Write a short note on different methods for measuring the age.

Q-3. How limiting factors control population? Explain with suitable example.

OR

Write about *r* and *k* selection.

Q-4. Explain neutralism with the help of suitable example.

OR

What is proto co-operation? Give suitable example.

Section-'C'

Answer the following long-answer-type questions with word limit 400-450. **(10x4=40)**

Q-1. What is life table? Describe its construction and uses.

OR

Describe in detail the survivorship curve and its uses.

Q-2. Describe different factors regulating the population size.

OR

Write an essay on biotic potential and environmental resistance.

Q-3. What is competition? Explain how it affects population.

OR

Describe habitate and niche. Add a note on advantages of niche segregation.

Q-4. Give definition, role components and example of predation.

OR

What are the adaptations which make the parasite suitable for their parasitic life?

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