

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034****M.Sc. DEGREE EXAMINATION – ZOOLOGY****FIRST SEMESTER – NOVEMBER 2022****PZO1MC04 – COMMUNITY AND POPULATION ECOLOGY**

Date: 30-11-2022

Dept. No. 

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

**SECTION A****Answer ALL the questions****1 Answer the following (5 x 1 = 5)**

a)	Define Metapopulation.	K1	CO1
b)	Recall Power laws and comment.	K1	CO1
c)	What are keystone species?	K1	CO1
d)	Describe ecological equivalent	K1	CO1
e)	Distinguish clutch from brood.	K1	CO1

**2 Fill in the blanks (5 x 1 = 5)**

a)	Scramble and contest are standard at extreme forms of competition was said by -----	K2	CO1
b)	Algal bloom is an example of which species interaction-----	K2	CO1
c)	Predators may increase the biodiversity of communities by preventing a single species from becoming-----	K2	CO1
d)	Both of the species make an equilibrium to maintain the-----	K2	CO1
e)	Strong Allee effect population will become -----	K2	CO1

**SECTION B****Answer any THREE of the following in 500 words (3 x 10 = 30)**

3	Different types of Bet hedging- Explain	K3	CO2
4	Distinguish between r and k selected species.	K3	CO2
5	Explain the features of Levin's model.	K3	CO2
6	Describe the communities are arranged in different strata forms.	K3	CO2
7	36,000 live births in 2008 among state resident women who are 20-24 years old 310,000 state resident women who are 20-24 years old in 2008. Calculate Specific	K3	CO2

	Birth Rate.		
<b>SECTION C</b>			
<b>Answer any TWO of the following in 500 words</b>			<b>(2 x 12.5 = 25)</b>
8	Methods of measuring primary production- Discuss.	K4	CO3
9	Simplify the Lokta Volterra model equation with examples.	K4	CO3
10	Explain the types of survivorship curves with examples and add a note on their relevance to age structures.	K4	CO3

<b>SECTION D</b>			
<b>Answer any ONE of the following in 1000 words</b>			<b>(1 x 15 = 15)</b>
12	Metapopulation models more significant than conventional population models - Elaborate with examples.	K5	CO4
13	Assess the importance of characteristics of population dynamics.	K5	CO4

<b>SECTION E</b>			
<b>Answer any ONE of the following in 1000 words</b>			<b>(1 x 20 = 20)</b>
14	Predation and its Effect on Life History Characteristics - Elaborate.	K6	CO5
15	Summarize the outcome of the different species interaction with illustrations.	K6	CO5
11	Discuss the community productivity in different system.	K4	CO3

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