

Enrollment No. _____



NAVACHANA UNIVERSITY
a UGC recognized University

School: School of Science
Program/s: MSc. Life Sciences
Year: 1st **Semester:** 1st
Examination: End Semester Examination
Examination year: December 2022

Course Code: ECO101, **Course Name:** Ecology and Environmental Biology
Date: 7/12/2022 **Total Marks:** 40
Time: 8.30am to 10.30 am **Total Pages:** 03

→ Write each answer on a new page.

→ * COs=Course Outcome mapping. # BTL=Bloom's Taxonomy Level mapping

Q. No.	Details	Marks	CO	BTL
Q.1	<p>Do as directed</p> <p>1. A population is a group of a) individuals in a species b) species in a community c) communities in an ecosystem d) individuals in a family</p> <p>2. Which type of curve is seen in human population growth?</p> <p>3. The carrying capacity of a population is determined by its a) population growth rate b) natality c) limiting resources d) mortality</p> <p>4. What is the term used to define the study of the characteristics and parameters of the population?</p> <p>5. Which of the following survivorship curve is suitable for the organisms who breeds several times during the course of their life span? a) Type IV b) Type III c) Type II d) Type I</p> <p>6. Those organisms who can breed only once in their lifetime are called as _____.</p> <p>7. Community refers to living and non-living components of the ecosystem. State true or false with justification.</p> <p>8. All of the following are density-dependent factors that limit animal populations EXCEPT a. Weather b. Predation c. Birthrate d. Food competition</p>	1x12=12	CO1 CO2 CO3 CO4 CO5	BTL1,2,3

	<p>9. What is the main aim of Montreal Protocol? a) Protection of Ozone Layer b) Extinct species c) Endangered Birds d) Biodiversity conservation</p> <p>10. Name the term which defines the study of the characteristics and parameters of the population. a) Demography b) Population ecology c) Population density d) Mortality</p> <p>11. Biologically speaking are humans "R" species or "K" species?</p> <p>12. Which of the following is not a feature of 'r' selected species? a) Reproduce quickly b) The low survival rate of progenies c) Parental care d) Reproduce a large number of progenies</p>			
<p>Q.2</p>	<p>Answer in brief (Any 7)</p> <p>1. How would population decline affect the environment?</p> <p>2. How might the removal of a predator from a system result in a diverse prey community?</p> <p>3. How does the mark-recapture method to estimate population size work?</p> <p>4. What are the different patterns of dispersion found in a population?</p> <p>5. What are the main features found in population with respect to population dynamics?</p> <p>6. What are the main factors that affect the growth of a population?</p> <p>7. In December 2004, a tsunami (giant wave) destroyed many of the organisms along the coast of the Indian Ocean. What can be expected to happen to the ecosystem that was most severely hit by the tsunami?</p> <p>8. What is the main reason for the decline in vulture population?</p> <p>9. How different are the concepts of migration, emigration and immigration?</p>	<p>7x2=14</p>	<p>CO1 CO2 CO3 CO4 CO5</p>	<p>BTL1,2,3</p>
<p>Q.3</p>	<p>Write short notes on (Any 2):</p> <p>1. Any one movement for conservation of tree</p> <p>2. Any two types of Mimicry</p> <p>3. Human impact on the ecosystem</p>	<p>2x2.5=5</p>	<p>CO1 CO2 CO3 CO5</p>	<p>BTL1,2,3</p>

Q.4	<p>Answer in detail (any 3)</p> <ol style="list-style-type: none"> 1. Describe the impact of at least three natural calamities on the environment. 2. What are the causes for ozone layer depletion? Give the harmful effects of the mentioned problem. Are the anthropogenic activities responsible for this environmental issue? 3. According to you, who do you think is responsible for the increase in natural calamities globally. Cite suitable examples to justify your answer. 4. What are the different International Legislations developed for environment concerns? 	3x3=9	CO1 CO2 CO3	BTL1,2,3