Q.P. Code No.41427

Fourth Semester B.Sc., Degree Examinations

May / June 2026

(SEP Scheme)

ZOOLOGY

SSD0270 : Environmental Biology Ethology & Bio Statistics

Time: 3 hrs.] [Max.Marks:80

Instruction to the Candidates :

1. The student should legibly write Section number along with question numbers within the margin only.
2. The answers without Section number and question numbers will not be valued.
3. Do not write anything (except register number) on the question paper.
4. All Sections are Compulsory.
5. Draw neat and labelled diagram wherever necessary.

SECTION – A

I. Answer all the following questions. **(10X2=20)**

1.

a) Write the advantages of bird migration.

b) States the laws of thermodynamics.

c) Define - Mean and Range

d) What is circadian rhythms and give an example.

e) Find the median of the following

Numbers 20, 18, 25, 22, 24

f) What is food chain and food web ?

g) Mention the types of pheromones.

h) Write parental care of Icthyophis.

i) What are the difference between natality and mortality?

j) Expand – IUCN & CITES

SECTION – B

II. Answer any SIX of the following questions. **(6X5=30)**

2. Explain inverted pyramid of Bio-mass and number.

Contd...2

3. Write a note on project elephant and project tiger.
4. What is ungrouped frequency distribution ? Construct a upgrouped frequency distribution from the following data

   15, 16, 16, 17, 18, 18, 17, 15, 15, 16, 16, 17, 15, 16, 16, 15, 16, 16, 15, 17, 17, 18, 19, 16, 15
5. Describe social organization in Termites.
6. Define courtship and explain the courtship of 3 spined stickle book fish.
7. Describe J & S shaped curve.
8. Explain parental core in Hippocampus and Rhacophorus.
9. The numbers of animals in a grass land ecosystem is given below. Draw a pic diagram.

Animals	Numbers
1) Deer	20
2) Rabbit	10
3) Fox	05
4) Birds	05

SECTION – C

III. Answer any THREE of the following. **(3X10=30)**

10. Describe animal interactions with reference to commensalism, mutualism and parasitism.
11. Explain
    a) Catodromous migration
    b) Wild – Life Protection Act 1972
12. Discuss the types of bird migration and mention the causes of migration.
13. A cross involving different genes give rise to F2 generation of tall and dwarf in the ratio of 110 : 90. Test by means of chisquare weather this value is deviated from the Mendl's monohybrid ratio 3 : 1

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