Roll No. .....

(09/20-I)

5187

B. Sc. EXAMINATION

(Second Semester)

ZOOLOGY

Second Paper

Life and Diversity from Molluska to Hemichordata and Genetics-II

(For Re-appear Candidates Only)

Time : Three Hours *Maximum Marks :* 40

Note : Attempt *Five* questions in all. Q. No. **1** is compulsory. Answer to each part of Q. No. **1** should not exceed **20** words. Attempt *two* questions from each Section. Draw well labelled diagrams wherever necessary.

1. (a) Radula

(b) Torsion

(c) Pedicellariae

(d) Madreporite

(e) Stomochord

(f) Nucleoside

(g) Klinefelter's syndrome

(h) Spontaneous mutations

(i) Euphenics

(j) Phenylketonuria. 1×10=10

Section A

2. Explain circulatory system of Pila with the help of a well labelled diagram. 7½

3. Describe digestive system and mode of feeding in Asterias. 7½

4. (a) Describe biodiversity in molluscas.

   (b) Write a brief note on Bipinnaria larva of star fish. 4½,3

5. (a) Write in brief about modification of foot in class Gastropoda.

   (b) Discuss affinities of Hemichordata with Echinodermata. 4½,3

Section B

6. Explain in detail chromosomal abberations and its types with suitable examples. 7½

7. (a) Describe the mechanism of semiconservative replication of DNA.

   (b) Differentiate between B-DNA and Z-DNA. 5,2½

8. Write short notes on the following :

   (a) Human Karyotype

   (b) Rh-incompatibility of blood during pregnancy

   (c) Sickle cell anaemia. 2½,2½,2½

9. Define transgenesis. Describe various methods of transgenesis and its significance. 7½