

Roll No. ....

(05/16-I)

**5187**

**B. Sc. EXAMINATION**

(Second Semester)

ZOOLOGY

Second Paper

Life of Diversity from Molluska to  
Hemichordata and Genetics-II

*Time : Three Hours*

*Maximum Marks : 40*

**Note :** Attempt *Five* questions in all. Q. No. 1 is compulsory. For the remaining four questions selecting at least *one* question from each Section.

**(Compulsory Question)**

1. Give short answers to the following questions :
  - (a) Radular formula in *Pila*.
  - (b) Monopectinate gills.

- (c) Tube feet and its functions
- (d) Pluteus larva
- (e) Aristotle's lantern
- (f) Stomochord
- (g) Erythroblastosis foetalis.
- (h) Karyotype
- (i) Nucleoside
- (j) Paracentric inversion.  $1 \times 10 = 10$

#### Section A

- 2. (a) Explain nervous system in *Pila* with suitable diagram. 4
- (b) External morphology of star fish.  $3\frac{1}{2}$
- 3. (a) Respiratory system in *Balanoglossus*. 4
- (b) Coelom in *Balanoglossus*.  $3\frac{1}{2}$
- 4. (a) Circulatory system in *Asterias*. 4
- (b) Discuss Tornaria larva with well labelled diagram.  $3\frac{1}{2}$

- 5. (a) Digestive system in *Pila*. 4
- (b) V.S. of body wall in star fish.  $3\frac{1}{2}$

#### Section B

- 6. (a) Explain A, B, O group system in Human. 4
- (b) Amniocentesis.  $3\frac{1}{2}$
- 7. (a) Turner's syndrome. 4
- (b) Phenylketonuria.  $3\frac{1}{2}$
- 8. (a) Helical structure of DNA. 4
- (b) Structure of  $T_2$  bacteriophage.  $3\frac{1}{2}$
- 9. Write a note on numerical chromosomal mutations.  $7\frac{1}{2}$