

Roll No.

Total Pages : 2

BAE/A-20

518

ZOOLOGY

[Life and Diversity of Animals (Invertebrates)
(Annelida to Hemichordate) and Genetics]

Paper-II

Time : Three Hours]

[Maximum Marks : 50

Note : Attempt *five* questions in all, selecting *two* questions from each section. Question No. 1 is compulsory (short answer type).

Compulsory Question

1. Short answer type question (in about 20-30 words)

- (a) Spermathecae.
- (b) Laurer's canal.
- (c) Polyembryony.
- (d) Aristotle Lantern.
- (e) Osphradium.
- (f) Nephridia.
- (g) Sex influenced Genes.
- (h) Recombination.
- (i) Anueploidy.
- (j) Down's syndrome.

(10×1=10)

SECTION-A

2. (a) Define Metamerism. Explain Metamerism in Annelids, 6
(b) Explain sense organs in Pila. 4
3. (a) Explain Digestive system of Grasshopper. 6
(b) Give External Morphology of Balanoglossus. 4
4. Give Affinities of Hemichordata with other groups of invertebrates and with chordates. 10
5. (a) Explain Water vascular system of Asterias. 7
(b) Give brief account of Trochophore Larvae. 3

SECTION-B

6. (a) Explain different laws of Mendel supporting your answer with suitable examples. 7
(b) What are sex limited genes ? Explain in brief. 3
7. (a) Define Linkage. Support your answer with suitable example. 5
(b) Explain sex determination in homogametic males. 5
8. (a) What are complementary Genes ? Explain giving Example. 5
(b) What is Epistasis Genes ? Explain giving Example. 5
9. (a) Explain Gene Mapping. 5
(b) Explain Maternal influence of shell coiling in Snail. 5