

Roll No.

(01/22-II)

5247

B.Sc. EXAMINATION

(Fifth Semester)

ZOOLOGY

Paper II

Evolution and Developmental Biology

Time : Three Hours

Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *two* questions from each Section A and Section B.

Q. No. 1 is compulsory.

1. (a) Coacervates
- (b) Atavism
- (c) Allopatric speciation
- (d) Australopithecus
- (e) Darwin's Finches

- (f) Arrhenotokus
- (g) Epimorphosis
- (h) Somatopleure
- (i) Periblastula
- (j) Primitive Streak. 1×10=10

Section A

2. Discuss various embryological evidences in favour of evolution. 7½

3. Write notes on the following :
 - (a) Mesohippus 2½
 - (b) Industrial melanism 2½
 - (c) Missing links. 2½

4. (a) Define Natural Selection. Explain three types of Natural Selection. 5½
- (b) List the postulates of Darwinism. 2

5. (a) Explain the theories of origin of Eukaryotes. 4

- (b) Enlist morphological changes in human evolution. 3½

Section B

6. Describe the process of gastrulation in Frog. 7½
7. (a) Draw electron microscopic structure of Human sperm. 5
- (b) Give differences between Holoblastic Cleavage and Meroblastic Cleavage. 2½
8. Explain the various types of extra-embryonic membranes in amniotes. 7½
9. Write notes on the following :
- (a) Neural induction 4½
- (b) Competence. 3