



SN – 380

V Semester B.Sc. Examination, Nov./Dec. 2017
(CBCS) (Freshers and Repeaters) (2016-17 and Onwards)
ZOOLOGY (Paper – VI)
Developmental Biology and Organic Evolution

Time : 3 Hours

Max. Marks : 70

- Instructions :** 1) Draw **neat** labelled diagrams **wherever necessary**.
2) Answer should be completely in **Kannada or English**.

PART – A

I. Answer **any five** of the following :

BMSCW

(5×3=15)

- 1) What is biogenetic law ? Who proposed it ?
- 2) Classify animal eggs on the basis of distribution of yolk.
- 3) Define ovoviviparity. Give an example.
- 4) Write a note on influence of yolk in cleavage.
- 5) Define :
 - a) Metamorphosis
 - b) Chordogenesis.
 - c) Neurulation
- 6) State Hardy-Weinberg's law.
- 7) Write a note on genetic drift.

PART – B

II. Answer **any five** of the following :

(5×5=25)

- 1) What is cleidoic egg ? Give its significance.
- 2) With respect to fertilization, explain
 - a) Amphimixis
 - b) Polyspermy
- 3) What is regeneration ? Differentiate between morphallaxis and epimorphosis.
- 4) Compare and comment on the blastula of amphioxus and frog, with neat labelled diagrams.



- 5) Sketch and mark the presumptive organ forming areas in chick.
- 6) Explain homologous structures with suitable examples.
- 7) Enumerate the salient features of Homo erectus.

PART - C

III. Answer **any three** of the following :

(3×10=30)

- 1) Give an account of :
 - a) Menstrual cycle.
 - b) Extra embryonic membranes.
- 2) With the help of diagrams, describe the process of gastrulation in chick.
- 3) Explain transplantation experiments of Spemann and Mangold.
- 4) Describe the morphological types of placenta with suitable examples.
- 5) What is isolation ? Explain prezygotic mechanism in isolation.
- 6) With reference to dating of fossils, explain :
 - a) Carbon dating method.
 - b) Fission track method.