



NS – 335

V Semester B.Sc. Examination, November/December 2016
(CBCS) (Freshers) (2016-17 & Onwards)
ZOOLOGY (Paper – VI)
Developmental Biology and Organic Evolution

Time : 3 Hours

Max. Marks : 70

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

PART – A

- I. Answer **any five** of the following **BMSCW** (5×3=15)
- 1) List the important scopes of embryology.
 - 2) State and explain preformation theory.
 - 3) Mention the role of Sertoli cells.
 - 4) Explain the structure of blastula of chick.
 - 5) Draw and label neurula of frog.
 - 6) What is atavism ? Mention its significance.
 - 7) With respect to fossils, briefly explain moulds and casts.

PART – B

- II. Answer **any five** of the following : (5×5=25)
- 1) With the help of illustrated diagram describe the fate map of blastula of frog.
 - 2) Explain mosaic and regulative eggs with suitable examples.
 - 3) Explain the process of oogenesis with a diagrammatic representation.
 - 4) Describe gastrulation in Amphioxus.
 - 5) Describe the structure and functions of allantois.



- 6) State Hardy – Weinberg Law. Mention its significance.
- 7) With reference to isolation, explain :
 - a) Zygotic mortality
 - b) Hybrid sterility.

PART - C

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

(3x10=30)

- 1) Describe the mechanism of fertilization in animals.
- 2) Define regeneration. Explain the same in the following animal forms :
 - a) Planarians
 - b) Amphibians.
- 3) Describe the histological types of placenta with suitable examples.
- 4) Enumerate the structural and physiological changes involved in the metamorphosis of tadpole of frog.
- 5) Mention the salient features of Ramapithecus and Cromagnon man.
- 6) Discuss briefly the embryological evidences in favour of organic evolution.