SN – 381

V Semester B.Sc. Examination, November/December 2017
(NS – 2013 – 14 & Onwards)
(Repeaters – Prior to 2016 – 2017)
ZOOLOGY (Paper – VI)
Developmental Biology and Organic Evolution

Time : 3 Hours Max. Marks : 70

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

PART – A

I. Answer **any five** of the following. **(5×3=15)**

1) Write a note on preformation theory.

2) Give the significance of egg membranes.

3) What is ovoviviparity ? Give an example.

4) Briefly explain the influence of yolk in cleavage.

5) List the differences between deciduate and non-deciduate placenta.

6) What are moulds and casts ?

7) Define allopatric and sympatric speciation.

PART – B

II. Answer **any five** of the following. **(5×5=25)**

1) Draw a neat labelled diagram of cleidoic egg.

2) Describe the hormonal control of menstrual cycle.

3) Explain slow block mechanism to polyspermy.

4) Compare the blastula of amphioxus and frog.

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5) Write a note on regeneration in amphibians.

6) What is natural selection ? Write a note on disruptive selection.

7) Give an account of analogous organs.

PART – C

III. Answer **any two** of the following. (2×10=2

1) Compare the fate maps of frog and chick.

2) Explain the process of gastrulation in chick.

3) With reference to following, explain :
   a) Morphological changes in metamorphosis of frog.
   b) Transplantation experiments of Spemann and Mangold.

4) What is reproductive isolation ? Explain with reference to pre-zygotic isolation.

PART – D

IV. Answer **any one** of the following. (1×10=1

Explain the foetal membranes of chick, their formation, structure and function.

OR

List the salient features of

a) Rama pithecus

b) Rhodesian man.
