UN – 183

V Semester B.Sc. Examination, November/December 2015
(New Scheme)
(60-2012-13 Only) (70 – 2013-14 and Onwards)
ZOOLOGY – VI
Developmental Biology and Organic Evolution

Time : 3 Hours Max. Marks : 60/70

Instructions : 1) *Draw diagrams* ***wherever*** *necessary.*
2) *Answer should be* ***completely*** *in* ***Kannada*** *or* ***English.***
3) *Candidates of* ***2013*** *onwards should answer Part* ***A, B, C*** *and* ***D*** *for* ***70*** *marks.*
4) *Candidates of* ***2012-13*** *should answer* ***A, B, C*** *for* ***60*** *marks.*

PART – A

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

1) What is epigenetic theory ? Who proposed it ?
2) Write any three significances of Egg membranes.
3) What is the term used for egg laying organisms ? Give two examples.
4) Write a note on Embryonic induction.
5) Briefly explain the role of Mutation as an evolutionary force.
6) List any three criticisms against Darwinism.
7) Define Atavism. Give an example and significance.

PART – B

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

1) Sketch and label the Hen's egg.
2) Briefly explain the mechanisms to block polyspermy in monospermic forms.
3) Explain cell lineage with reference to *Nereis*.
4) Define Regeneration. Explain the types with examples.

P.T.O.

5) Write notes on :
   a) Allantois
   b) Developmental Symbiosis.
6) Describe Stanley Miller's experiment. Add a note on its significance.
7) Explain the role of Natural Selection as an evolutionary force in Speciation.

PART – C

(2×10=20)

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

1) With the help of neat labeled diagrams, compare the blastula of Amphioxus and Frog.
2) Describe the histological types of Placenta with suitable examples.
3) Explain :
   a) Estrous cycle
   b) Morphological and anatomical changes in the metamorphosis of Frog.
4) Write an essay on different types of fossils.

PART – D

(Compulsory for the students of 2013 and Onwards)

(1×10=10)

IV. Describe the process of gastrulation in Chick.

OR

Name the important fossil stages of Human evolution and explain the salient features of any two.