RDN – 30

B.Sc. (Semester – VI) Examination, April/May 2019
ZOOLOGY (Paper – XIII)
Developmental Biology

Duration : 2 Hours | Max. Marks : 80

Instructions : *i)* ***All*** *questions are* ***compulsory****.*
ii) Figures to the ***right*** *indicate* ***full*** *marks.*
iii) Draw ***neat*** *labelled diagrams* ***wherever*** *necessary.*

1. Answer **any four** of the following : **16**

   a) Amphimixis.
   b) Types of embryonic inductions.
   c) Blastulation in hen's egg.
   d) Functions of yolk sac.
   e) Primitive streak in chick embryo.
   f) Polarity in regeneration.

2. Write brief notes on **any four** of the following : **16**

   i) Patterns of cleavage
   ii) Concept of Competence
   iii) Flexion and torsion in chick
   iv) Branches of Embryology
   v) Endocrine function of placenta
   vi) Concept of ageing.

3. A) Describe the advantages and disadvantages of parthenogenesis. **6**

   OR

   A) What are fate maps ? Describe any two methods of fate map construction. **6**

   B) Discuss in brief the process of vitellogenesis. **6**

P.T.O.

4. A) What is transplantation ? Explain the various types of transplantation. 6

OR

A) Discuss regional specificity of organizer. 6

B) Trace the development of amnion and chorion in chick embryo. Add a note on functions of amnion. 6

5. A) Elucidate the salient features of a 24-hour old chick embryo. 6

OR

A) Trace the development of nervous system up to 72 hours of incubation in chick embryo. 6

B) Describe the structure and biochemical components of hen's egg. 6

6. A) Summarize the regenerative capacities of different invertebrate groups. 6

OR

A) Explain stimulus and suppression of regeneration with a suitable example. 6

B) Explain in brief the histological types of mammalian placentae. 6
