

2015
(6th Semester)

ZOOLOGY

Paper : ZL-X

(Developmental Biology)

Full Marks : 55

Time : 2½ hours

(PART : B—DESCRIPTIVE)

(Marks : 35)

*The figures in the margin indicate full marks
for the questions*

1. Describe the different types of eggs. 7

Or

What is parthenogenesis? Explain the two types of parthenogenesis. 1+6=7

2. What is fate map? Discuss the different methods for the construction of fate maps. 1+6=7

Or

Describe the two basic types of mammalian placentae and add a note on the functions of placenta. 5+2=7

3. What do you understand by morphogenetic fields? Write in detail the double-gradient theory. 2+5=7

Or

Discuss the concept of embryonic induction with examples. 7

4. Discuss the process of metamorphosis in insects and its hormonal regulations. 5+2=7

Or

Explain the mechanism of regeneration in Amphibia. 7

5. Describe the concept of ageing. 7

Or

Write an account on IVF.

2015
(6th Semester)

ZOOLOGY

Paper : ZL-X

(**Developmental Biology**)

(PART : A—OBJECTIVE)

(Marks : 20)

The figures in the margin indicate full marks for the questions

SECTION—A

(Marks : 5)

Put a Tick (✓) mark against the correct answer in the brackets provided : 1×5=5

1. The blastula of Amphioxus is

(a) Coeloblastula ()

(b) Descoblastula ()

(c) Periblastula ()

(d) None of the above ()

2. Which of the following is a type of repair involving a reorganization of the remaining part of the body of an animal?

(a) Heteromorphosis ()

(b) Epimorphosis ()

(c) Morphallaxis ()

(d) None of the above ()

3. Hormone which helps in maintenance of pregnancy and prevents premature parturition is

(a) relaxin ()

(b) progesterone ()

(c) oestrogen ()

(d) None of the above ()

4. Which one of the following cleavages occurs when the successive cleavage planes cut straight through the egg at right angles to one another?

- (a) Biradial cleavage ()
- (b) Radial cleavage ()
- (c) Spiral cleavage ()
- (d) Rotational cleavage ()

5. Which of the following is urinary bladder by origin, accumulates the embryonic wastes and also acts as an embryonic respiratory surface?

- (a) Allantois ()
- (b) Amnion ()
- (c) Chorion ()
- (d) None of the above ()

(4)

SECTION—B

(Marks : 15)

Write short notes on the following in not more than
5 to 8 sentences each : 3×5=15

1. FAS (Foetal Alcoholic Syndrome)

2. Involution

3. Properties of organizer

(7)

4. Stem cells

8. Viviparity

