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6 SEM TDC ZOOH (CBCS) C 13

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(June/July)

ZOOLOGY

(Core)

Paper : C-13

(**Developmental Biology**)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

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

1. Fill in the blanks : 1×5=5

- (a) Avian egg is _____.
- (b) Mammals in which true placenta is present are called _____.
- (c) At the end of gastrulation, _____ movements start.

(2)

- (d) The embryonic tissue that influences other tissues to differentiate is known as ____.
- (e) The pituitary hormone ____ is involved as an inhibitor in the overall control of metamorphosis.
2. Distinguish between the following pairs (any two) : $2 \times 2 = 4$
- (a) Fertilizin and Antifertilizin
- (b) Epiboly and Emboly
- (c) Area pellucida and Area opaca
3. Write short notes on the following (any two) : $5 \times 2 = 10$
- (a) Regeneration
- (b) Stem cell
- (c) Ageing
4. What do you mean by fertilization? Discuss how sperm approaches towards egg during fertilization. $2 + 8 = 10$
- Or
- What is cleavage? Discuss briefly the patterns of cleavage with examples. $2 + 8 = 10$

(3)

5. What are extra-embryonic membranes? Discuss the structure and functions of extra-embryonic membranes found in chick. $2 + 10 = 12$
- Or
- Define placenta. Classify the different types of placenta. What are its functions? $2 + 6 + 4 = 12$
6. What is ontogenetic development? Discuss the different phases of ontogenetic development. $2 + 10 = 12$
- Or
- What is 'gametogenesis'? Describe the process of 'oogenesis' in detail. What type of cytoplasmic changes occur during the formation of a mature oocyte? $2 + 7 + 3 = 12$
