

Total No. of Printed Pages—3

**6 SEM TDC ZOOH (CBCS) C 13**

**2 0 2 2**

( 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

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