

Total No. of Printed Pages—3

6 SEM TDC ZOOH (CBCS) C 13

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(May/June)

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) The _____ membrane is a structure surrounding the outer surface of plasma membrane of an ovum.
- (b) _____ pattern arises from the spatial and temporal regulation and coordination of the events.
- (c) In vertebrate, protein yolk is synthesized in _____.

P23/786

(Turn Over)

(2)

(d) The placental barrier between the maternal and foetal blood is minimum in _____.

(e) _____ is the temporary connection between the maternal and foetal tissues.

2. Distinguish between the following (any two) :
2×2=4

(a) Capacitation and Acrosome reaction

(b) Intra- and Inter-cellular differentiation

(c) Genetic teratogenesis and Environmental teratogenesis

3. Write short notes on the following (any two) :
5×2=10

(a) IVF

(b) Cytoplasmic determinants

(c) Amniocentesis

4. What is gametogenesis? Discuss the various events that take place during spermatogenesis. 2+8=10

Or

Discuss about fertilizin-antifertilizin reaction. How can polyspermy be prevented?
7+3=10

P23/786

(Continued)

(3)

5. Discuss the fate of germ layers. Write a note on implantation of an embryo in human. 6+6=12

Or

What are organisers? Mention its role in the process of development. Add a note on fate map. 2+6+4=12

6. What is regeneration? Discuss its different modes. 2+10=12

Or

What is metamorphosis? Discuss in detail about the insect metamorphosis. 2+10=12

P23—3000/786

6 SEM TDC ZOOH (CBCS) C 13