

7. (a) Discuss the fate of different primary germ layers in organogenesis. 5
 (b) Give a brief outline on the extra embryonic membrane in mammals. 6
8. Define neurulation. Explain its development process in detail. 11

SECTION—C

9. Explain the following :-
- (i) Ovulation
 - (ii) Polyspermy
 - (iii) Meroblastic and Holoblastic
 - (iv) Branching Morphogenesis
 - (v) Epiboly
 - (vi) Cellular differentiation
 - (vii) Embryonic induction
 - (viii) De-lamination
 - (ix) Invagination
 - (x) Neural induction
 - (xi) Primary embryonic induction
 - (xii) Placenta
 - (xiii) Types of organogenesis
 - (xiv) Zona Pellicida
 - (xv) Notogenesis

15×2=30

Roll No.

Total No. of Pages : 2

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DEVELOPMENTAL BIOLOGY—BTHB-1105T

Semester-I

Time Allowed : Three Hours]

[Maximum Marks : 74

Note :- Attempt *two* questions each from Section A and B. Section C is compulsory.

SECTION—A

1. Define fertilization. Discuss the mechanism and types of fertilization in detail. 11
2. (a) Classify the eggs on the basis of amount of yolk. 5
 (b) Differentiate between the spermatogenesis and oogenesis. 6
3. Define Blastulation. Discuss its types, process and mechanism. 11
4. Write a note on formation and differentiation of primary germ layers in embryonic induction. 11

SECTION—B

5. Give a details account on primary, secondary and tertiary embryonic induction. 11
6. Write a note on differential gene expression and determination. 11