

Total Pages : 3

B.Sc./6th Sem (H)/ZOOLOGY/23(CBCS)

2023

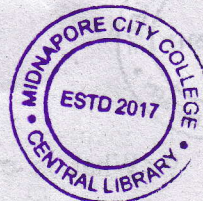
6th Semester Examination

ZOOLOGY (Honours)

Paper : C 13-T

[Developmental Biology]

[CBCS]



Full Marks : 40

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *five* questions : $2 \times 5 = 10$

1. Define epiboly and emboly. $1+1=2$
2. Distinguish between primary and secondary spermatocyte. $1+1=2$
3. What do you mean by primary egg membrane? Give one example. $1+1=2$
4. What is ZP_3 ? Mention its function. $1+1=2$
5. Mention the source and function of 'inhibin'. $1+1=2$
6. Define embryo. 2

P.T.O.

(2)

7. Hypostome acts as an organizer in Hydra — explain. 2
8. Write the role of Hepatocyte Growth Factor in compensatory regeneration. 2



Group - B

Answer any *four* questions : 5×4=20

9. What is extra embryonic membrane? Mention the composition and function of amnion and allantois. 1+2+2=5
10. Explain the process of spermateliosis with illustration. 5
11. Define deciduate and nondeciduate placenta. Give example of each. Mention two hormones secreted from placenta. 2+2+1
12. Give an account of vitellogenesis in any vertebrate. Mention the germinal layer from which skin, liver and bone are originated. 3+2
13. Write briefly the teratogenic effect of the following : 1+1+1+1+1=5

- (a) Valproic acid
- (b) Warfarin
- (c) Ethanol
- (d) Retinoic acid
- (e) Lead

(3)

14. Write briefly the developmental process of brain in vertebrate with suitable diagram. 5

Group - C

Answer any *one* question : 10×1=10

15. Describe Spemann-Mangold's experiment in support of dorsal lip of blastopore as the primary organizer in amphibian development. Define secondary and tertiary organizer with suitable example. 6+4=10
16. Briefly describe the process — how apical ectodermal cap and regeneration blastema is formed after amputation of a salamander limb? 5+5=10

