

Date:

Registration number:

ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU-27

B.Sc. ZOOLOGY - VI SEMESTER

SEMESTER EXAMINATION: APRIL 2022

(Examination conducted in July 2022)

**ZO 6218 - Developmental Biology, Evolution and Zoogeography**

Time- 2 ½ hrs Max Marks-70

This question paper contains two printed pages and four parts

**Part A**

**I. Answer the following questions. Each question carries 1 mark 7X1=7**

1. According to Preformation theory, the preformed miniature form of living creatures is called as \_\_\_\_\_\_\_\_\_.

2. \_\_\_\_\_\_\_\_\_ represents the prominent nucleus in a cleidoic egg.

3. Alecithal eggs are seen in \_\_\_\_\_\_\_\_\_\_.

4. \_\_\_\_\_\_\_\_\_\_ is the organizer present in the roof of the archenteron in amphibian development.

5. \_\_\_\_\_\_\_\_\_\_ is an extra-embryonic membrane which keeps the embryo moist during its development.

6. Cleavage results in the formation of large number of cells called \_\_\_\_\_\_\_\_\_\_.

7. Symbiotic organisms which lives inside the body of other organisms are called as \_\_\_\_\_\_\_\_\_\_.

**Part B**

**Answer the following in brief. Each one carries 2 marks 4x2=8**

8. What is an archenteron?

9. Differentiate between isolecithal and centrolecithal eggs.

10. What was the major event during the cretaceous period?

11. What are coprolites? Give an example.

**Part C**

**II. Answer any Five of the following. Each question carries 5 marks 5X5 = 25**

12. What is a meroblastic cleavage? Explain its types.

13. List the postulates of Von Boer’s Law.

14. Give a comparative account of the blastula of frog and chick.

15. Comment on the major periods of Mesozoic era with its events.

16. Give an account of different types of fossils.

17. Comment on cladogram. Give an example.

18. With the help of an example, explain Co-evolution.

**Part D**

**III. Answer any THREE of the following. Each question carries 10 marks 3 X 10=30**

19. Differentiate between the cleavage patterns in frog and chick.

20. Explain the process of gastrulation in Chick.

21. Elaborate on how Spemann and Mangold established the potency of gray crescent in amphibian development.

22. Give a detailed account on adaptive radiation. Add suitable examples and illustrations.