Reg. no.:

Date:3-12-22

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| **ST. JOSEPH’S UNIVERSITY- BANGALORE-27** | | | | | | |  |
| **MSc. ZOOLOGY – I SEMESTER** | | | | | | |  |
| **SEMESTER EXAMINATION: OCTOBER 2022**  **(Examination conducted in December 2022)** | | | | | | |  |
| **ZO7122- BIOLOGY AND DIVERSITY OF NON CHORDATES** | | | | | | |  |
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| **Time - 2 hrs** | |  | **Max Marks – 50** | | |  |  |
|  |  |  |  |  |  |  |  |
| **This paper contains TWO printed pages and four parts** | | | | | | |  |

**Note: Draw neat labelled diagrams wherever necessary**

**Indicate the question numbers clearly.**

**PART A**

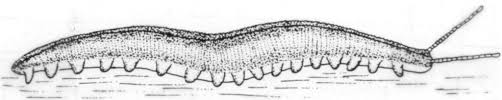
**Answer the following: 5 X 1 =5**

1. Define paratype.

2. Name the theory that explains the origin of metazoans from multinucleate ciliate by

cellularisation.

3. Name the phylum to which the animal given below belongs?



# 4. Give an example for a fresh water sponge that has siliceous monaxon spicules?

5. Define pheromones.

**PART B**

**Answer the following: 5 X 2 =10**

6. Penetration glands

7. Oncosphere

8. Respiratory pigments in invertebrates

9. Trilobites

10. Ciliary movements in protozoa

**PART C**

**Answer any THREE of the following: 3 X 5 = 15**

11. Mention the characteristics of class ophiuroidea with 2 examples.

12. Explain briefly phylogeny of non-chordates.

13. Feeding mechanism in Mollusca.

14. Describe the photoreceptors in invertebrates

**PART D**

**Answer any TWO of the following: 2 X 10 = 20**

15. Snail is necessary for the completion of life cycle of *Fasciola hepatica*. Substantiate.

Add a note on pathogenicity, symptoms and treatment.

16. Give a comparative account of excretion in invertebrates.

17. Members of phylum Coelenterata and Echinodermata possess primitive nervous systems. Elaborate.

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