QP Code: U25C036

Reg. No : .....

Name : .....

ST MARY'S COLLEGE (AUTONOMOUS), THRISSUR-20

III SEMESTER (FYUGP) DEGREE EXAMINATIONS, OCTOBER 2025

ZOO3MN201 : ANIMAL DIVERSITY, REPRODUCTIVE BIOLOGY & DEVELOPMENTAL BIOLOGY

2024 Admission Onwards

(Credits: 4)

Time: 2 Hours **Maximum Marks: 70**

Section A

*Answer **all**. Each question carries **3** Marks.* ***(Ceiling: 24 Marks)***

1. Enumerate six salient features of Porifera.
2. Describe the concept of Retrogressive metamorphosis with an example.
3. Describe the physiological changes that occur in sperm during capacitation.
4. Describe the key features of Vorticella.
5. List three key anatomical adaptations for flight found in Columba.
6. List the main parts of compound eyes.
7. Recall the peculiarities of the body of Petromyzon.
8. Explain how semen collection and preservation aid infertility management.
9. Analyze why microlecithal eggs are typical of mammals.
10. Explain why yolk content influences the type of cleavage.

Section B

*Answer **all**. Each question carries **6** Marks.* ***(Ceiling: 36 Marks)***

11. Evaluate the ecological significance of arthropods in food chains.
12. Assess the forebrain, midbrain, and hindbrain in Rabbit.
13. Analyze why female foeticide persists despite the PNDT Act, considering social and legal factors.
14. Describe secondary sexual characteristics in females.
15. Analyze the major phases of embryonic development.
16. Explain the features of Asterias and Holothuria.

Turn Over

17. Discuss the significance of discovering *Nasikabatrachus sahyadrensis*.

18. Assess the survival advantage of hermit crabs that associate with sea anemones compared to those that do not.

Section C

*Answer **any one**. Each question carries **10** Marks.* ***(1x10=10marks)***

19. Differentiate Class Amphibia and Class Aves based on their key characteristics.

20. Design and illustrate a comparative diagram showing all stages of spermatogenesis and oogenesis,. Explain the differences.

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