****

**Register Number:**

**Date:**

**ST JOSEPH’S UNIVERSITY, BENGALURU-27**

**B.Sc. BIOLOGY – I SEMESTER**

**SEMESTER EXMINATION: OCTOBER 2023**

**(Examination conducted in November/December 2023)**

**BY122 – Biology I**

**(For current batch students only)**

**Time: 2 Hours Max Marks: 60**

This paper contains TWO printed pages and TWO parts.

Each part has to be answered on separate answer booklets.

Draw diagrams and write examples wherever necessary.

**PART ONE – BOTANY**

**A. Answer any FIVE of the following in 2-3 sentences each 5x2=10**

1. Active immunity and passive immunity
2. Capillitial threads
3. Clubroot disease
4. Dikaryotic mycelium
5. Hypertrophy and Hypotrophy
6. Morphology of *Rhizopus*
7. Phycobiont and mycobiont

**B. Write critical notes on any TWO of the following 2x5=10**

1. Causal organism, disease symptoms and control measures of Citrus canker
2. Describe any five necrotic symptoms
3. Sexual reproduction in *Peziza*

**C. Give a comprehensive account of any ONE of the following 1x10=10**

1. Etiology, disease symptoms, disease cycle and control measures of Red Rot of Sugarcane
2. Life cycle of *Puccinia* on wheat leaf

**PART TWO – ZOOLOGY**

1. **Answer ANY FIVE of the following in two or three sentences 5 × 2 = 10**
2. Write a short note on metamerism.
3. Differentiate between saprophytic and saprozoic mode of nutrition.
4. Mention the different types of reproduction in sponges.
5. Draw a neat labelled diagram of gemmule of sponges.
6. State the Child’s axial gradient theory of regeneration.
7. Name the different types of spicules in sponges.
8. Define polymorphism with an example.
9. **Write critical notes on ANY TWO of the following 2 × 5 = 10**
10. Draw a neat labelled diagram of the life cycle of *Aurelia*.
11. Write a note on the parasitic adaptations in tapeworm.
12. Enlist the general characteristics of phylum Nematoda with classes.
13. **Give a comprehensive account of ANY ONE of the following 1 × 10 = 10**
14. Give an account on the criteria employed in classification of animals on the basis of symmetry, germ layer and coelomic conditions.
15. Illustrate the different types of canal system in sponges and their significance.