

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

**B.Sc. – II SEMESTER**

**SEMESTER EXAMINATION: APRIL 2023**

**(Examination conducted in May 2023)**

**BY222: BIOLOGY II**

**(For current batch students only)**

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

**This paper contains TWO printed pages, TWO sections, and THREE parts in each section**

**SECTIONS I AND II HAVE TO BE WRITTEN IN SEPARATE ANSWER BOOKLETS**

**Write examples and draw diagrams wherever required**

**SECTION I: BOTANY**

**A. Answer any FIVE of the following in two-three sentences each: 5 x 2 = 10**

1.Elaters

2.Cryophytic algae

3.Mucilaginous cavity

4.Hydroids

5.Haplobiontic life cycle

6.Types of sexual reproduction in *Volvox*

7.Scales and its types

**B: Write notes on any TWO of the following: 2 x 5 = 10**

8.Asexual reproduction in algae (Any 5)

9. Morphological features of *Chara*. Add a note on nucule & globule

10.Economic importance of Bryophytes

**C: Give a comprehensive account of any ONE of the following: 1 x 10 = 10**

11.External features and sexual reproduction in *Funaria*

12. (a) Post fertilization changes in *Batrachospermum*

(b) External structure of thallus in *Sargassum*

**SECTION II: ZOOLOGY**

**A. Answer any FIVE of the following in two-three sentences each: 5 x 2 = 10**

1. Draw a neat labelled diagram of trochophore larva
2. List out the steps involved in vermiculture
3. Draw the structure of tube feet in starfish
4. Write a short note on foot modification in octopus
5. Diagrammatic representation of the life cycle of *Bombyx mori*
6. Bring out any five morphological characters of earthworm
7. Draw a neat labelled diagram of Nauplius larva

**B: Write notes on any TWO of the following: 2 x 5 = 10**

1. Substantiate - *Peripatus* is the connecting link between Annelida and Arthropoda
2. With neat labelled diagram describe the circulatory system of freshwater mussel (*Unio*)
3. Give an account on the salient features and affinities of Rotifera with *Brachionus*

**C: Give a comprehensive account of any ONE of the following: 1 x 10 = 10**

1. What are the different larval forms of phylum Echinodermata? Write a note on to their phylogenetic significance
2. Write a note to the distinguishing characters and classification up to classes of phylum Arthropoda