

[Time: 2½ Hours]

[ Marks: 75]

- N.B:** 1. All questions are **compulsory**.  
 2. **Figures to the right** indicate marks.  
 3. Draw a neat and labelled diagram wherever necessary.

1. Explain the following :

(a) Definition and development of coelom. **07**

**OR**

(a) Cellular and tissue grade of organization and formation of germ layers. **07**

(b) Significance , advantages and types of segmentation. **08**

**OR**

(b) Types of symmetry and its advantages. **08**

2. Describe the following :

(a) Salient features of Phylum Porifera. **07**

**OR**

(a) Life history of liver fluke. **07**

(b) Reproduction in Protozoa. **08**

**OR**

(b) Life cycle and alternation of generations in *Obelia*. **08**

3. Explain the following :

(a) General characters and classification of Arthropoda. **07**

**OR**

(a) Torsion and detorsion in Mollusca. **07**

(b) Water vascular system in Echinoderms **08**

**OR**

(b) Diversity in habit and habitat in Phylum Annelida. **08**

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4. Explain the following :

(a) Classification and external morphology of *Sepia*.

07

OR

(a) Female reproductive system of *Sepia*.

07

(b) Economic importance and locomotion in *Sepia*.

08

OR

(b) Circulatory system of *Sepia*.

08

5. Write notes on the following :

(a) Unicellularity.

04

OR

(a) Cephalothorax.

04

(b) Ciliary locomotion.

04

OR

(b) Parasitic adaptations of *Ascaris*.

04

(c) *Balanoglossus*

04

OR

(c) Class Hirudinea.

04

(d) Ink sac of *Sepia*.

03

OR

(c) Jaws and radula of *Sepia*.

03

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