



**GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY
UNIVERSITY, ODISHA, GUNUPUR
(GIET UNIVERSITY)**

M. Sc. (Third Semester) Regular Examinations, December – 2024

22ASPC301 – Biology of Nonchordata

(M.Sc. Animal Science)

Time: 3 hrs

Maximum: 70 Marks

(The figures in the right hand margin indicate marks.)

UNIT-1

PART – A

(2 x 10 = 20 Marks)

Q.1. Answer **ALL** questions

- | | CO # | Blooms Level |
|--|------|--------------|
| a. What is polymorphism? | CO1 | K3 |
| b. What is the importance of reproduction for sustaining life? | CO1 | K4 |
| c. Which layers derive the organs of an organism? | CO2 | K4 |
| d. Write the name of the host <i>Ascaris lumbricoides</i> . | CO2 | K4 |
| e. Different ways of respiration in Mollusca. | CO3 | K4 |
| f. What is the importance of lac culture in Indian economy. | CO4 | K4 |
| g. Why hemichordate named so? | CO3 | K4 |
| h. Define the term regeneration? | CO1 | K3 |
| i. Discuss the two types of coiling in Mollusca. | CO3 | K3 |
| j. Define metamerism. | CO2 | K3 |

PART – B

(10 x 5 = 50 Marks)

Answer ANY FIVE questions

- | | Marks | CO # | Blooms Level |
|---|-------|------|--------------|
| 2. Write a note on life cycle of honey bee. Discuss importance of apiculture. | 10 | CO4 | K3 |
| 3.a. Discuss about torsion and detorsion in Mollusca with suitable diagram. 5 | 5 | CO3 | K3 |
| b. Write a note on segmental organs. | 5 | CO2 | K3 |
| 4. a. Discuss on the branchial respiration in Mollusca. | 5 | CO3 | K3 |
| b. Write a note on the sol gel theory of amoeba. | 5 | CO1 | K3 |
| 5.a. Discuss structure and affinities of Ctenophora. | 5 | CO1 | K3 |
| b. Discuss about the larval forms of Echinodermata. | 5 | CO3 | K4 |
| 6. Exemplify the birth pattern of <i>Taenia solium</i> . | 10 | CO2 | K4 |
| 7.a. Discuss how coelom is formed? | 5 | CO2 | K4 |
| b. Write a note on natural pearl formation. | 5 | CO4 | K3 |
| 8. Embellish the working mechanism of vision in insect with fine diagram. | 10 | CO2 | K4 |