

**B.Sc. DEGREE EXAMINATION-NOVEMBER 2024**  
**BRANCH VI. A. – ADVANCED ZOOLOGY AND BIOTECHNOLOGY**  
**FIRST SEMESTER**

**COURSE : MAJOR CORE**  
**PAPER : INVERTEBRATA**  
**SUBJECT CODE : 23ZL/MC/IV14**  
**TIME : 3 HOURS**

**MAX.MARKS:100**

<b>SECTION A</b>			
<b>ANSWER ALL THE QUESTIONS</b>			<b>(10 X 2 =20)</b>
<b>Q. No.</b>	<b>Question</b>	<b>CO</b>	<b>KL</b>
1.	Mention the different types of symmetry with suitable examples.	CO1	K1
2.	Name the causative organism for a) Amoebiasis b) Malaria	CO1	K1
3.	What are choanocytes?	CO1	K1
4.	List any two types of cells found in <i>Sycon</i> along with their functions.	CO1	K1
5.	What are gravid proglottids?	CO1	K1
6.	Mention any four classes of Phylum Arthropoda.	CO1	K1
7.	Why do mosquitoes have sucking type of mouth parts?	CO1	K1
8.	Give any two symptoms of Filariasis.	CO1	K1
9.	Give the systematic position of Sea Star.	CO1	K1
10.	State True or False: Echinoderms have a schizocoelic coelom – Give reasons for your answer.	CO1	K1
<b>SECTION B</b>			
<b>ANSWER ALL THE QUESTIONS</b>			<b>(10 X 2 = 20)</b>
<b>Q. No.</b>	<b>Question</b>	<b>CO</b>	<b>KL</b>
11.	Give the significance of Foraminiferan ooze.	CO2	K2
12.	Differentiate between non – chordates and chordates.	CO2	K2
13.	Define metagenesis with a suitable example.	CO2	K2

14.	Comment on the structure and significance of statocysts in Phylum Coelenterata.	CO2	K2
15.	Distinguish between protonephridia and metanephridia.	CO2	K2
16.	Differentiate between male and female <i>Penaeus</i> .	CO2	K2
17.	How is royal jelly different from honey?	CO2	K2
18.	State the function of anterior and posterior sucker in <i>Hirudinaria granulosa</i> .	CO2	K2
19.	Draw a neat, labelled diagram of a radula and highlight its importance.	CO2	K2
20.	What are pedicellariae? Add a note on their function.	CO2	K2
<b>SECTION C</b>			
<b>ANSWER FOUR QUESTIONS. (TWO FROM EACH LEVEL - INTERNAL CHOICE)</b>			
<b>(4 X 10 = 40)</b>			
<b>Q. No.</b>	<b>Question</b>	<b>CO</b>	<b>KL</b>
21.	Interpret the role of micronuclei and macronuclei in the process of conjugation in <i>Paramecium</i> by explaining how they contribute to genetic exchange.	CO3	K3
<b>OR</b>			
22.	Identify and analyze the different types of locomotory organelles in protozoa. Highlight their significance.	CO3	K3
23.	Describe the Sycon type of Canal System in Porifera.	CO3	K3
<b>OR</b>			
24.	Discuss the affinities of Ctenophora.	CO3	K3
25.	Explain in detail the life cycle of <i>Taenia solium</i> . Illustrate your answer and add a note on the control measures.	CO4	K4
<b>OR</b>			
26.	Comment on the structure and phylogenetic significance of <i>Peripatus</i> .	CO4	K4
27.	Comment on the social life of termites and describe their economic importance.	CO4	K4
<b>OR</b>			
28.	Analyse the water vascular system of <i>Asterias</i> with suitable illustrations.	CO4	K4

<b>SECTION D</b>			
<b>ANSWER ANY FOUR QUESTIONS. (INTERNAL CHOICE ONLY)</b>			
<b>(4 X 5 = 20)</b>			
<b>Q. No.</b>	<b>Question</b>	<b>CO</b>	<b>KL</b>
29.	Explain the outline classification of the Animal Kingdom.	CO5	K5
<b>OR</b>			
30.	Recommend strategies to control mosquito populations in an area with a high incidence of malaria.	CO5	K5
31.	Elucidate the economic importance of Porifera.	CO5	K5
<b>OR</b>			
32.	Coral reefs are often referred to as the "Rainforests of the sea." Evaluate the threats that coral ecosystems face due to human activities and climate change.	CO5	K5
33.	Critique the role of anti – helminthic drugs in the management of ascariasis.	CO5	K5
<b>OR</b>			
34.	Assess the importance of metamerism in phylum Annelida according to the embryological theory.	CO5	K5
35.	The respiratory system of <i>Pila globosa</i> is adapted to an amphibious mode of life. Justify.	CO5	K5
<b>OR</b>			
36.	Assess any two larval forms found in Phylum Echinodermata along with suitable diagrams.	CO5	K5

\*\*\*\*\*