



# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

## B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY AND BIOTECHNOLOGY

FIRST SEMESTER – APRIL 2023

UAZ 1505 – INVERTEBRATA - II

Date: 06-05-2023

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

### SECTION A

Answer ALL the Questions

1. Definitions		(5 x 1 = 5)	
a)	Cephalothorax	K1	CO1
b)	Osphradium	K1	CO1
c)	Tube feet	K1	CO1
d)	Mushroom gland	K1	CO1
e)	Biological control	K1	CO1
2. Fill in the blanks		(5 x 1 = 5)	
a)	Excretory organ of <i>Penaeus</i> is _____	K1	CO1
b)	_____ is the organ of equilibrium in <i>Pila</i> .	K1	CO1
c)	Echinopluteus larva found in the class _____	K1	CO1
d)	There are _____ chambers present in the heart of cockroach	K1	CO1
e)	_____ that usually form small colonies in a piece of wood.	K1	CO1
3. Match the following		(5 x 1 = 5)	
a)	Ommatidia -	Wing Cover	K2 CO1
b)	Radula -	Perforated plate	K2 CO1
c)	Madreporite -	Egg case	K2 CO1
d)	Elytra -	Rasping Tongue	K2 CO1
e)	Ootheca -	Compound eye	K2 CO1
4. True or False		(5 x 1 = 5)	
a)	There are nineteen pairs of appendages present in <i>Penaeus</i> .	K2	CO1
b)	Cloacal respiration seen in <i>Pila</i> .	K2	CO1
c)	Order forcipulatida refers to stalked pedicellaria.	K2	CO1
d)	The period between two moults is called stage.	K2	CO1
e)	Plasmodium transmitted by Tsetse fly.	K2	CO1

### SECTION B

Answer any TWO of the following in 100 words

(2 x 10 = 20)

5. Describe the reproductive system of *Penaeus*.

K3 CO2

6.	Explain the different types of respiration in echinoderms.	K3	CO2
7.	Describe the digestive system of cockroach.	K3	CO2
8.	Illustrate and explain the life cycle, damages caused and control measures of rice yellow stem borer.	K3	CO2

**SECTION C**

**Answer any TWO of the following in 100 words** **(2 x 10 = 20)**

9.	Differentiate apposition and superposition images with reference to compound eyes in <i>Penaeus</i> .	K4	CO3
10.	Illustrate and explain the structure and functions of radula with a diagram.	K4	CO3
11.	Classify Echinodermata with examples.	K4	CO3
12.	Enumerate the control measures of sugar cane pest.	K4	CO3

**SECTION D**

**Answer any ONE of the following in 250 words** **(1 x 20 = 20)**

13.	Construct the connective link of <i>Peripatus</i> between Annelida and Arthropoda.	K5	CO4
14.	Relate the components of water vascular system and evaluate its coordination of various functions in asterias.	K5	CO4

**SECTION E**

**Answer any ONE of the following in 250 words** **(1 x 20 = 20)**

15.	Prepare a flowchart and explain the insects related with human diseases.	K6	CO5
16.	Summerise and compile the importance of IPM principles for pest control.	K6	CO5

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