

Enrollment No.....



Faculty of Science
End Sem (Odd) Examination Dec-2022
FS3EG03 Entomology

Programme: B.Sc.(Hons.)

Branch/Specialisation: Forensic
Science**Duration: 3 Hrs.****Maximum Marks: 60**

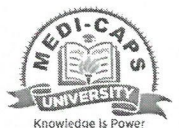
Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. Insects are classified into the phylum_____. **1**
 (a) Nematoda (b) Mollusca
 (c) Arthropoda (d) Platyhelminthes
- ii. Most primitive arthropods belong to the class- **1**
 (a) Archnida (b) Merostomata
 (c) Onychophora (d) Myriapoda
- iii. The main characteristics feature of an insect is- **1**
 (a) Three pair of legs (b) Presence of wings
 (c) Pair of antennae (d) All of these
- iv. Structure G is the- **1**
 (a) Tympanum (b) Trochanter
 (c) Ovipositor (d) Spiracle
- v. Another word for the metamorphosis is- **1**
 (a) Evolution (b) Change
 (c) Modelling (d) Survival
- vi. In the complete metamorphosis, which of the following is larval stage **1**
 in insects?
 (a) Caterpillar (b) Maggots
 (c) Grubs (d) All of these
- vii. Small, shiny black flies often found on excrement and decaying **1**
 materials-
 (a) Silphidae (b) Cleridae (c) Sepsidae (d) Muscidae
- viii. Flies that may arrive and begin laying eggs within minutes of death- **1**
 (a) Blow flies (b) Silphidae (c) Piophilidae (d) Cleridae

P.T.O.

- ix. _____ is determined largely by estimating the age of developing **1**
 immature insects collected at the time of discovery and using estimates
 of accumulated degree hours from temperature data.
 (a) Minimal PMI (b) Muscidae
 (c) Piophilidae (d) Maximal PMI
- x. Estimations of the postmortem interval (PMI) using entomological **1**
 evidence must take into account _____.
 (a) The species of insect present
 (b) Weather conditions
 (c) Geographical locations of the decedent's body
 (d) All of these
- Q.2 i. Define Entomology. Name the insects involved in the decomposition **2**
 of dead body.
 ii. Explain the dominance of insects in animal kingdom. **3**
 iii. Write a note on the history of entomology in India. **5**
- OR iv. Explain the classification of phylum Arthropoda. **5**
- Q.3 i. Draw the structure of male and female genital organ. **2**
 ii. Explain the morphology of insects with the help of diagram. **8**
- OR iii. Explain the structure and modification of insects antennae and legs. **8**
- Q.4 i. What is metamorphosis? Explain with example. **3**
 ii. Explain the types of reproduction in insects. **7**
- OR iii. Explain the structure and function of circulatory system of insects. **7**
- Q.5 i. Explain the biology of houseflies. **4**
 ii. Explain the biology of blow-flies and flesh flies. **6**
- OR iii. Explain how insects helps in the decomposition of dead body? **6**
- Q.6 Attempt any two:
 i. Give the significance of entomological evidence. **5**
 ii. Give any one case study of entomological evidence explaining the **5**
 duration of post-mortem interval (PMI)
 iii. How can we use entomological evidence in finding cause of death? **5**

Scheme of Marking

	<p style="text-align: center;">Faculty of Science End Sem (Odd) Examination Dec-2022 Entomology (FS3EG03)</p>	
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Note: The Paper Setter should provide the answer wise splitting of the marks in the scheme below.

Q.1	i)	c. Arthropoda	1
	ii)	b. Merostomata	1
	iii)	d. All of these	1
	iv)	b. Trochanter	1
	v)	d. Change	1
	vi)	d. All of them	1
	vii)	c. Sepsidae	1
	viii)	a. Blow flies	1
	ix)	a. Minimal PMI	1
	x)	d. All of these	1
Q.2	i.	Defn (1m) & insect name (1m)	2
	ii.	Defn insects (1m), Dominance (2m)	3
	iii.	History of Entomology in India (5m)	5
	OR iv.	Classification & example (4m) Defn Arthropoda (1m)	5
Q.3	i.	male (1m), female (1m), Structure.	2
	ii.	Insects Defn (1m), morphology (6m) Example (1m)	8
	OR iii.	Structure & explanation Antennae (4m), legs (4m)	8
Q.4	i.	metamorphosis Defn (1m) Explain eg. (2m)	3
	ii.	Reproduction System (7m)	7
	OR iii.	Circulatory System (7m)	7
Q.5	i.	Defn (1m), Example (1m) & Biology (2m)	4

	ii.	Biology - Blowflies (3m), flesh fly (3m)	6
OR	iii.	Insects life cycle (3m), decomposition stages (3m)	6
Q.6			
	i.	Significance (5m)	5
	ii.	Case study (3m), PMI (2m)	5
OR	iii.	Entomological Evidence (2m), Finding cause (2m) & Correlation (1m)	5
