

"Dissemination of Education for Knowledge, Science and Culture"

-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur

(An Empowered Autonomous Institute)

Department of Zoology

Academic year-2025-2026

Date: 14/02/2026

NOTICE

All students of B. Sc. II Minor are hereby informed that the open-book test for paper Insect Pest Management is scheduled on 17/02/2026. As part of continuous evaluation, attendance is compulsory for all.


Ms. Pallavi S. Shetfalkar
Teacher Incharge


Dr. G. K. Sontakke
Head
Department of Zoology
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(An Empowered Autonomous Institute)

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Department of Zoology

Academic year-2025-2026

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B. Sc II Sem IV (Minor)
Paper- Insect Pest Management
Open Book Test

Question 1. Write Identification Character, life cycle and Damage & Control of mosquito.

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Paper- Insect Pest Management
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Attendance

Sr. No.	Roll No	Name of Student	Signature
1.	7963	Rutuja Guresh Wandre	<u>Rutuja</u>
2.	7966	Chhavi R. Yadav	<u>Chhavi</u>
3.	7902	Siya Kailas More	<u>Siya</u>
4.	7907	Tasneem Bhola Nadaf	T.B. Nadaf
5.	7822	Pecmali mahadev Patil	<u>Pecmali</u>
6.	7821	Aditi Jaywant Patil	<u>Aditi</u>
7.	7903	Asiya Dastgir Nadaf	<u>Asiya</u>
8.	7904	Sanjivani Vishnu Patil	<u>Sanjivani</u>
9.	7900	Pratishtha Prashant Kulkarni	<u>Pratishtha</u>
10.	7958	Chaitrali Yuvraj Patil	<u>Chaitrali</u>
11.	7961	Vaidhi A. Patil	<u>Vaidhi</u>
12.	7952	Gauri S. Kumbhar	<u>Gauri</u>
13.	7962	Aditi S. Salokhe	<u>Salokhe</u>
14.	7956	Shrinidhi S. Patrawalkar	<u>Shrinidhi</u>
15.	7948	Shruti Amit Dhobale	<u>SADhobale</u>
16.			
17.			

Name - Asiya Dastgir Nadaf.

Date - 17/01/26.



(अधिकारप्रदत्त स्वायत्त)
कोल्हापूर

॥ ज्ञान, विज्ञान आणि सुसंस्कार यासाठी शिक्षण प्रसार ॥

- शिक्षणमहर्षी डॉ. बापूजी साळुंखे

VIVEKANAND COLLEGE, KOLHAPUR.

(Empowered Autonomous)

SUPPLIMENT

Jr. Supervisor's Sign. :

Students Sign. :

Seat No. : 7903

Seat No. in words :

Suppliment No. :

38670

Centre

प्र. क्र.

Q. No.

Q. 1) Write identification characters, life cycle, damage & control of mosquito.

→ Mosquitoes constitute the most important single family of insects, constituting public health importance by transmission of diseases. They are found all over the world, the four important groups of mosquitoes commonly known for transmission of diseases are Anopheles, Aedes, Culex & Mansonia.

Morphology -

The body is divided into 3 distinct parts namely head, thorax & abdomen.

Head - It is a semi-globular structure comprising of -

- i) A pair of compound eyes.
- ii) The proboscis.
- iii) A pair of palpi.
- iv) A pair of antennae / feelers.

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प्र. क्र.
Q. No.

Thorax - The thorax is large & rounded in appearance & bears -
 i) A pair of wings dorsally
 ii) Three pairs of legs ventrally.

Abdomen - The abdomen is long & narrow & is composed of 10 segments, the last two of which are modified to form the external genitalia.

* life cycle -

The mosquito undergoes complete metamorphosis consisting of four stages as follows -

1) Egg - eggs are laid on surface of water, 100-200 at a time. (अधिकारपद्धत रंगारत)

- This stage lasts for 1-2 days.

2) larva - The larva is free swimming creature with an elongated body divisible into head, thorax & abdomen. it is also voracious feeder.

- This stage remains for 5-7 days. Depending upon the species of larvae, it may / may not have siphon tube.

3) pupa - It is comma-shaped in appearance, with a large rounded cephalothorax & narrow abdomen.

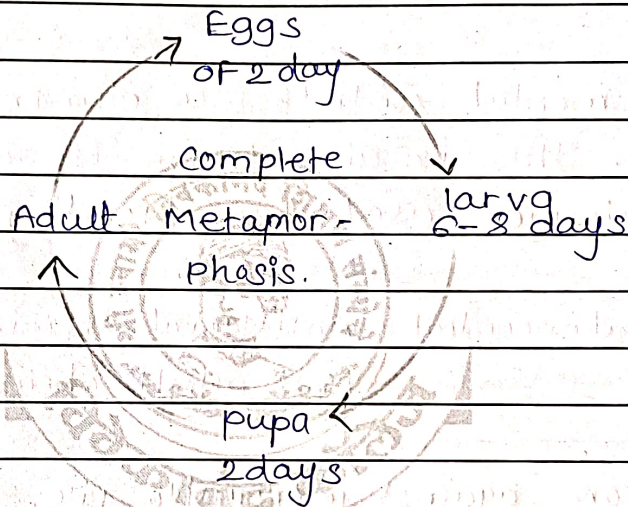
This stage lasts for 1-2 days.

4) Adult - When the development is complete, the pupal skin splits along the back & the adult mosquito / imago emerges.

- Normally the adult mosquitoes live for about 2 weeks.
 - The males are generally short-lived.

[illegible]

Under favourable conditions of temp. & food supply the life cycle from the egg to adult is complete in 7-10 days.



Damages -

- 1) Anopheles - Malaria, Filaria (not in India)
- 2) Culex - Bancroftian Filariasis, Japanese encephalitis, West Nile Fever.
- 3) Aedes - Yellow fever (Not in India), Dengue, chikungunya fever, Rift valley fever.

* Control Measures -

- 1) Biological control- Use of parasites, predator (fish & frog) and pathogens. The best known fish are *Gambusia affinis*.

- 2) Genetic control - Release of sterile male mosquitoes in the field. Which will compete with the natural fertile male mosquito in mating & the population will be automatically reduced.
- 3) Environmental control - To eliminate their breeding places. This is also known as source reduction. Monitoring of drainages used for breeding.
- 4) Chemical control - Anti larval chemicals - paris green
- Anti adult chemical - Melathian.
- 5) protection against mosquito bite. -
 - screening of doors & windows
 - Mosquito net should be tucked around the bed.
 - Insects repellants like deet, dimethyle, phthlate.

