

**BZYCT-143**

**ASSIGNMENT BOOKLET**

**Bachelor's Degree Programme  
(BSCG)  
INSECT VECTORS AND VECTOR BORNE DISEASES**

**Valid from 1<sup>st</sup> January, 2022 to 31<sup>st</sup> December, 2022**



**School of Sciences  
Indira Gandhi National Open University  
Maidan Garhi  
New Delhi-110068  
(2022)**

Dear Student,

Please read the section on assignments in the Programme Guide for Core Courses that we sent you after your enrolment. A weightage of 30 per cent, as you are aware, has been earmarked for continuous evaluation, **which would consist of one tutor-marked assignment** for this course. The assignment is in this booklet, and it consists of three parts, Part A and B. The total marks of all the parts are 100, of which 35% are needed to pass it.

### Instructions for Formatting Your Assignments

Before attempting the assignment please read the following instructions carefully:

- 1) On top of the first page of your answer sheet, please write the details exactly in the following format:

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**ROLL NO.:** .....

**NAME:** .....

**ADDRESS:** .....

.....

.....

**COURSE CODE:** .....

**COURSE TITLE:** .....

**ASSIGNMENT NO.:** .....

**STUDY CENTRE:** ..... **DATE:** .....

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**PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.**

- 2) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
- 3) Leave 4 cm margin on the left, top and bottom of your answer sheet.
- 4) Your answers should be precise.
- 5) Complete each of Part A and Part B of this assignment separately, and **submit them together.**
- 6) The assignment answer sheets are to be submitted to your Study Centre as per the schedule made by the study centre. **Answer sheets received after the due date shall not be accepted.**

**We strongly suggest that you retain a copy of your answer sheets.**

- 7) This assignment is **valid from 1<sup>st</sup> January, 2022 to 31<sup>st</sup> December, 2022.** If you have failed in this assignment or fail to submit it by December, 2022, then you need to get the assignment for the year 2023, and submit it as per the instructions given in the Programme Guide.
- 8) **You cannot fill the exam form for this course** till you have submitted this assignment.

We wish you good luck.

**ASSIGNMENT**  
**INSECT VECTORS AND VECTOR BORNE DISEASES**

Course Code: BZYET-143  
Assignment Code: BZYET-143/TMA/2022  
Maximum Marks: 100

**Note: Attempt all questions. The marks for each question are indicated against it.**

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**Part-A**

**Maximum Marks: 50**

1. “Insects are diverse group of animals that are well adapted to different environments” Justify the statement. (10)
2. Write short notes on following: (10)
  - i) Mouthpart modifications in insects
  - ii) Types of antennae in insects
  - iii) Typical structure of insect wing
  - iv) Leg modification in insects
3. a) Write short note on host parasite interactions and its importance for public health. (5)  
b) What are different adaptations adopted by vectors? (5)
4. Write short notes on the following: (10)
  - i) Prevention of control measures of fleas
  - ii) Typhus fever
  - iii) *Tunga penetrans*
  - iv) Transmission of plague
5. Write short notes on the following: (10)
  - a) Medical importance of lice.
  - b) Medically important Insect Orders.

**Part-B**

**Maximum Marks: 50**

6. a) Describe the life cycle of *Anopheles* mosquito. (5)  
b) Explain the epidemiology of malarial parasite. (5)
7. i) Fill in the blanks: (8)
  - a) *Culex*-borne diseases can be controlled by killing ..... in their breeding grounds and ..... using space .....
  - b) Stagnant water bodies act as ....., ..... for mosquito.
  - c) Mosquitoes can be controlled genetically by .....male technique and ..... replacement.
  - d) Mosquito nets used against *Culex* mosquitoes should not have ..... holes per square inch.
- ii) Write two various methods of *Culex* control. (2)

8. i) Give differences between the following: (6)
- a) Extrinsic incubation period and intrinsic incubation period
  - b) Transverse and vertical transmission
  - c) Urban cycle and sylvatic cycle
- ii) Draw labeled diagrams of the following: (4)
- a) Life cycle of *Aedes* mosquito
  - b) Dengue transmission Cycle
9. i) Fill in the blanks. (6)
- a) The life cycle of *Phlebotomus argentipes* consists of 4 stages namely eggs, larva, ..... and .....
  - b) Freshly laid eggs of sandflies are creamy white in colour which gradually turn to .....
  - c) Sand flies are natives of ..... climate.
  - d) Female sand flies feed on a wide variety of ..... hosts.
  - e) Prevalence of vector is dependent upon the environmental factors such as humidity, temperature and .....
- ii) Write the ecological factors favourable for the transmission of Kala-azar. (4)
10. a) List five control measures that you will take at home to keep the house flies away. (5)
- b) Explain the concept of Integrated Vector Management. (5)