

Roll No.

Total No. of Questions : 9]
(2034)

[Total No. of Printed Pages : 4

UG (CBCS) IIIrd Year Annual Examination
3016

B.SC. ZOOLOGY
(Insect, Vector and Diseases)
(DSE-IB)
Paper : ZOOL 302 (A) TH

Time : 3 Hours]

[Maximum Marks : 50

Note :- Attempt *five* questions in all, selecting one Question from each Section. In Section-A, Question No. 1 is compulsory. Attempt all parts of a question together. Draw a labelled diagrams wherever necessary.

Section-A

(Compulsory Question)

I. Fill in the blanks :

- (i) Prothoracic glands of an insect secrete
hormone.

- (ii) The scientific name of sand fly is
- (iii) are smaller and non-flying hind wings of flies.
- (iv) is the most virulent species of *Plasmodium*.
- (v) Vector of disease plague is
- (vi) Disease is characterized by running episodes of high fever, shaking chills, intense sweating and severe jaundice.
- (vii) Mandibles and first maxillae are modified to form in bed bugs and mosquitoes.
- (viii) Chikungunya virus is transmitted by mosquito.
- (ix) Amastigote form of Trypanosoma is called
- (x) Visual units of compound eyes of insects are

Section-B

1×10=10

2. (a) Explain the exoskeleton and appendages of head of cockroach.
- (b) Describe the mosaic vision in insects.

6,4

3. (a) Write general characters of orders :

(i) Diptera

(ii) Hemiptera

6

(b) Write short notes on the following :

(i) Lepidopterans

(ii) Hymenopterans

4

Section-C

4. Describe the life cycle of *Plasmodium vivax* with well labeled diagrams.

10

5. (a) Enumerate the life cycle of *Leishmania donovani* with the help of diagrams.

(b) Describe the causative agent, disease vector, symptoms and management of myiasis.

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Section-D

6. Give an account of body louse-borne diseases, their transmission, symptoms and preventions.

10

7. (a) Write short notes on :

(i) Chagas disease

(ii) Feeding adaptations of bed bugs.

3×2=6

- (b) Describe habitat, morphology and life cycle of kissing bug.

4

Section-E

8. (a) Discuss in detail about Integrated Vector Management.

- (b) Give an account of alternative methods of vector control.

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9. Write short notes on the following :

(a) Relapsing fever

(b) Typhus fever

(c) Filariasis

(d) Wings of insects

$2\frac{1}{2} \times 4 = 10$