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Your Roll No.....

1351

B.Sc. (Hons.)/III

A

ZOOLOGY—Paper X (a)

(Applied Entomology)

(Admissions of 2004 and onwards)

Time : 3 Hours

Maximum Marks : 55

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt Five questions in all, including

Q. No. 1 which is compulsory.

1. (a) Define the following :
- (i) Economic injury level
 - (ii) Bioassay
 - (iii) Synergist
 - (iv) Antimetabolites
 - (v) Quarantine

5

P.T.O.

(b) Write the scientific names of the following insects :

(i) Caster semilooper

(ii) San Jose scale

(iii) Gundhy bug

(iv) Gram Dhora

(v) Red Pumpkin beetle

(vi) Sandfly

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(c) Expand the following abbreviations :

(i) DDT

(ii) EDCT

(iii) NMEP

(iv) WHO

(v) USDA

(vi) ICAR

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(d) Match the following :

(A)	(B)
Housefly	<i>Xenopsylla</i>
Nasute	Maggot
Plague	<i>Achoea Janata</i>
Anopheles mosquitoes	Termites
Caster plants	Heat spots
Bulk storage	<i>Plasmodium</i> 3

(e) Differentiate between the following :

- (i) Maggot and Grubs
- (ii) Parasites and Parasitoids
- (iii) Primary host and Secondary host
- (iv) Vector and Carrier
- (v) LC-50 and LD-50 5

2. (a) Name different species of Honey bees found in India. Which species gives maximum honey yield ?

(b) Give an account of Langstroth's hive and describe different diseases of honey bees. 2+4+3

3. Name the insect pests of cotton by giving their scientific names. Describe the life history, damages and control of any *one* of the pests you studied. 9
4. (a) What are the factors that govern the safe storage of food grains ?
- (b) Describe the life history and control of *Callosobruchus Chinensis*. 4+5
5. (a) Mention at least *six* diseases spread by Dipteran insects. give their pathogen's names and mode of transmission.
- (b) Write an account of sterile male release technique for insect control. 6+3
6. (a) Define biological control and briefly discuss its merits and demerits.
- (b) How can biological and chemical control be integrated in IPM ? 4+5
7. Write short notes on any *three* of the following :
- (i) Cultural control;
- (ii) Biotic theory of periodicity in Locusts;
- (iii) Collection and Preservation of insects;
- (iv) Legislative insect control. 3+3+3