

Roll No :

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

SP-669

M.Sc. (Final) Examination, 2021

ZOOLOGY

Paper - VII (c)

(Entomology)

Time : 1½ Hours]

[Maximum Marks : 75

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

(खण्ड-अ)

(अंक : 2 × 10 = 20)

नोट :- सभी **दस** प्रश्नों के उत्तर दीजिए (उत्तर-सीमा **50** शब्द)। प्रत्येक प्रश्न **2** अंक का है।

Section-B

(Marks : 5 × 5 = 25)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **5** marks.

(खण्ड-ब)

(अंक : 5 × 5 = 25)

नोट :- सभी **पाँच** प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न में विकल्प का चयन कीजिए (उत्तर-सीमा **200** शब्द)। प्रत्येक प्रश्न **5** अंक का है।

Section-C

(Marks : 10 × 3 = 30)

Note :- Answer any *three* questions out of five. (Answer limit **500** words). Each question carries **10** marks.

(खण्ड-स)

(अंक : 10 × 3 = 30)

नोट :- पाँच में से किन्हीं **तीन** प्रश्नों के उत्तर दीजिए। (उत्तर-सीमा **500** शब्द)। प्रत्येक प्रश्न **10** अंक का है।

BI-310

(1)

SP-669 P.T.O.

Section–A

2 each

1. (i) Write two characters of Apterygota.
- (ii) Define insect fossils.
- (iii) Give systematic position of the following pests :
 - (a) *Dysdercus koenigii*
 - (b) *Schistocerca gregaria*
- (iv) Differentiate between the following :
 - (a) Homoptera and Heteroptera
 - (b) Acrididae and Gryllidae
- (v) Comment upon the fustorial type of leg.
- (vi) Draw a well labelled diagram of a generalized insect wing.
- (vii) Write briefly about light producing organ of an insect.
- (viii) Differentiate between holopneustic and apneustic types of respiratory system in insect.
- (ix) Explain the Diapause in insect.
- (x) Write a short note on types of insect larvae.

Section–B

5 each

2. Describe the various theories of evolution of insects.

Or

Describe the important characters and major families of order-orthoptera.

3. Characterize order Hymenoptera and classify it upto superfamilies with important characters and examples.

Or

Describe economic importance of order Isoptera.

4. Describe the piercing and sucking type of mouthparts in insects.

Or

Give an account of histology of insect integument.

5. Describe the structure of the alimentary canal of insect.

Or

How the blood flows within the body of insect ?

6. Give an account of the post-embryonic development of insects.

Or

Describe the structure of a typical insect egg.

Section–C

10 each

7. Write an essay on fossil insects.

8. Describe the families of economic importance of Order-Lepidoptera.

9. Write notes on the following :

(i) Sutures of head capsule

(ii) Adaptive modification of legs of insects

10. Write notes on the following :

(i) Mechanism of light production in insects

(ii) Significance of sound production in insects

11. Define Metamorphosis. How does it differ from growth ? Describe the types of metamorphosis found in insects.