

## Part-A

1. Name the types of head based on position of mouth parts.
2. Give four examples of Arachnida found in the soil.
3. What is the food of *Gryllotalpa*?
4. Name the order containing asymmetrical male, you have studied.
5. What is the main constituent of food of termites?
6. Name the host of strepsiptera (*Stylopes*).
7. Write down the common name of insects incoming order Siphonaptera .
8. The larvae of lepidopteran insects are commonly called as.....
9. The larvae of coleopteran insects are commonly called as.....
10. What are phago stimulants?
11. Write name of the biological control agent of *Scropophaga nirella*.
12. What is I.P.M.?
13. Define I.P.M?
14. List five insect repellents known to you.
15. What is carbazate?
16. Name the structure used for collection of pollen grains in honey bee.

## Part-B

1. Brief the function of cuticle
2. Give four examples of Arachnida found in the soil.
3. Mayflies are seated at first trophic level. Write about its life cycle.
4. Prove the statement “praying mants are friends of framers.
5. Give name of two Hemiptera pests that sucks the plant sap.
6. Draw a well labeled diagram of face of grasshopper.
7. Make a drawing of components of a mandibulate mouth parts and label them.
8. Draw a complete labeled diagram of tegmina of a grasshopper.
9. Draw a complete labeled diagram of hemi elytra of bug.
10. What are juvenile hormones? Name their functions.
11. Describe the movement of potassium fluoride and water into malphigian tubules.
12. Name five insects which give birth to baby.
13. Briefly write about acoustical communication in homoptera.
14. Name some sex pheromone found in insects.
15. Describe insect migration giving example of two insects.
16. Describe diapauses in insects.
17. Briefly write about the management of rice ball midges.
18. Discuss two important coleoptrous pests associated with stored grains.
19. How many pests of red gram are known to you? Write their names only.
20. Describe the life cycle and management of *Phyzopertha dominica*.
21. Describe lifecycle and control of *Setophilus oryzae*.

22. Describe management of stored grain pests.
23. Write the management practices of *Epilachna* beetle.
24. List pests of tobacco and give their categories.
25. What is management practices adapted for tobacco caterpillar?
26. What is management practices adapted for thrips?
27. What are aims of IPM?
28. Give economic threshold lerd(ETL) for various pests of rice.
29. What is crop rotation? How it is useful for various crops?
30. Write natural enemies of cottony cushion scale, *Icerya purchasi* infesting citrus.
31. Write an essay about achievements in IPM, on pests of rice.
32. Name five important plant parasitic nematodes known to you.
33. Name five important mites known to you.
34. Explain the procedure of silk worm rearing.
35. Briefly write about the diseases of silkworm.
36. Name the species of honeybee found in India.
37. List the diseases of honeybees caused by mites.
38. Give diagrammatic life history of lac insect.
39. List host plants of lac insect.
40. Describe the technology of lac processing.
41. What are the uses of shellac?
42. List various products of lac.
43. Make a list enumerating the predators and parasitoids in lac.
44. Name some of the biological control agents of lepidopterous parasites.
45. Name five wasps of Eulophidae family.
46. Name five flies of Techinidae family (Diptera) infesting various pests.
47. Honey bees are very good pollinators. Can you name the five such pollinators?
48. How is pollination of cultivated fig occur in nature?
49. Write infestation and control of stable fly.
50. Write about shafe louse and its control on foud.
51. List seven families of termite.
52. Write chemical control of cockroaches.
53. Name the chemicals used by termites/ants against their enemies.
54. Write down about diseases caused by sand flies *Phlebotomus*.
55. Write down the control of black fly.
56. Describe the life cycle of flea and its management practices.
57. Hostels and dormitories are infested with human louse-*Pediculus humanus*. How you will control them?
58. What is PMI? How it is estimates?
59. Name the chemicals traced in maggots.
60. Name the factors responsible for body defaecation.

61. Name the stages of decomposition of a dead body.
62. List the arthropods associated on the carrion.
63. Explain various means of respiratory organs in aquatic larvae of insects.
64. What do you understand by air stores in aquatic insect?

### **Part-C**

1. Discuss the important characters and importance of order Diptera?
2. Name different types of antennae you have studied?
3. Give the chemical structure of chitin of insect.
4. Give a diagram explaining the circulation of haemolymph in an insect body.
5. Explain female reproductive system of an insect.
6. Name some of the insects which releases alarm pheromones.
7. Describe social behavior in ants.
8. Describe life cycle of rice stem borer.
9. Write nature and symptoms of sorghum shoot borer.
10. Write about management practices of early shoot borer *Chilo infuscatellus* snell.
11. Semi looper (*Achaea janata*) is a regular pest of castor in India. Write about its life cycle and management.
12. Explain the spotted ball worm. How many species of insects are known to attack on cotton in the World?
13. Name one pest of chilly and write about its management.
14. Write the life cycle and management of lemon butterfly.
15. Write down the nature, symptoms of damage, and management practices of mealy bug on grapes.
16. Explain the management practice for black headed caterpillar on coconut.
17. How the rhinoceros beetle infests the palms, give their management practices.
18. Write down the principles of IPM?
19. Write an essay about transgenic plants.
20. Give names of families of incoming under order hymenoptera which are parasitoid on various crops.
21. Write an essay on technique of using natural enemies of insect's pests?
22. How will you control rodents in crop field?
23. List the management measures required for bird pests in crops.
24. Describe social behavior in honey bee colonies.
25. Briefly write about a bee hive.
26. How the lac is prepared for marketing?
27. How shellac is prepared?
28. Write about housefly. Its life cycle and control.
29. Give social life of termite.

30. Describe feeding habits of termites.
31. Give a diagrammatic representation of a termatorium.
32. Describe polymorphism, biology and economic importance of ants.
33. Distinguish between Anopheles, Aedes and Culex mosquitoes.
34. Describe control of mosquitoes.
35. Explain the flea-medical importance and control.
36. List the faunal succession that occurs on the dead body.
37. List aquatic insects found in your neighborhood.