



Name _____ Class _____ Roll no. _____ Date _____ Marks _____ / 35

1 Key words**[4]**

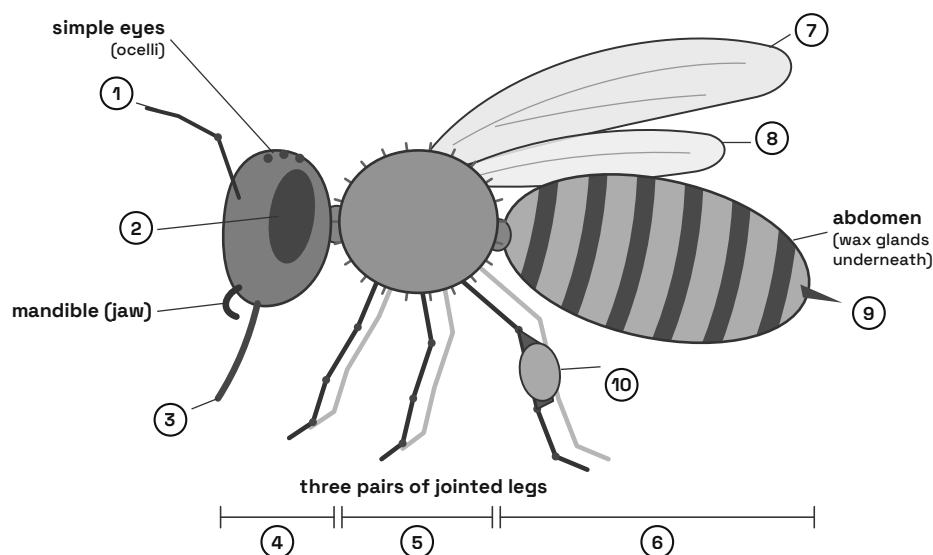
Fill in the blanks with words from the box. Two words in the box are not needed. Each blank carries 0.5 mark.

bee bread castes colony mandibles nuptial flight parthenogenesis pheromones
propolis royal jelly spermatheca

Honey bees live together in a large, organized family called a _____, with three kinds of bees, or _____. The queen controls the hive with scented chemicals called _____. A drone grows from an unfertilized egg, by _____. Every larva is fed _____ for its first three days; after that, future workers and drones get _____, a mixture of pollen and honey. On her _____ the queen mates with many drones, and she keeps their sperm for life in the _____.

2 Label the diagram**[5]**

The diagram shows the body of a worker honey bee. Name the parts numbered 1 to 10. Each carries 0.5 mark.



- | | | |
|-----------|----------|----------|
| 1. _____ | 2. _____ | 3. _____ |
| 4. _____ | 5. _____ | 6. _____ |
| 7. _____ | 8. _____ | 9. _____ |
| 10. _____ | | |



[5]

Choose the correct option for each of the following questions.

- | | | |
|------|--|--|
| i. | Which bee has only 16 chromosomes? | [1] |
| | a. queen bee | b. worker bee |
| | c. drone bee | d. queen and worker bee |
| ii. | Where is royal jelly made? | [1] |
| | a. in a gland in the head of the queen | b. in a gland in the head of the drone |
| | c. in a gland in the head of the worker | d. in the salivary gland of the worker |
| iii. | A pale bee lies still in a sealed cell, its legs and wings folded against its body. Which stage is it? | [1] |
| | a. egg | b. larva |
| | c. pupa | d. adult |
| iv. | Which describes a drone? | [1] |
| | a. haploid, sterile, medium-sized, hairy | b. haploid, fertile, medium-sized, hairy |
| | c. diploid, sterile, medium-sized, smooth | d. diploid, fertile, medium-sized, hairy |
| v. | If a worker's pollen baskets are damaged, which job can she no longer do? | [1] |
| | a. collect nectar | b. build brood cells |
| | c. feed royal jelly to larvae | d. collect pollen from flowers |

[3]

Write very short answers to the following questions.

- What is the process called in which a drone develops from an unfertilized egg? [1]

- What is the function of the drone bee? [1]

- On which segments of the thorax are a bee's wings attached, and how many wings does it have? [1]

[8]

Write short answers to the following questions.

- a. Write any two differences between a drone and a worker bee. [2]



b. Give a reason: pasture land is needed for bee farming.

[2]

c. Give a reason: a drone dies after mating.

[2]

d. If the queen dies for some reason, who will control the hive?

[2]

6 Long answer

[4]

Write a long answer to the following question.

Explain how the division of labor takes place in bees.

7 Numerical problem

[4]

Study the table and answer the questions. Show your working.

Bee	Egg	Larva	Pupa
Queen	3 days	5.5 days	7.5 days
Worker	3 days	6 days	12 days
Drone	3 days	7 days	14 days

- How many days does a worker take to develop from egg to adult? (1)
- What fraction of its development does a worker spend as a pupa? (1)
- A queen lays a drone egg and a worker egg on the same day. How many days apart will they come out as adults? (1)
- In the busy season a queen lays about 1,500 eggs a day. About how many eggs does she lay in 30 days? (1)



