

Social Behaviour

14. (a) The honey bee (*Apis mellifera*) is a social insect that lives in colonies.

The queen is the only female in a colony that reproduces. Other females are workers that collect food, maintain the colony and care for the developing offspring.

Explain the advantage to the worker bees of caring for the offspring of the queen.

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12. Which of the following is an example of kin selection?

- A Worker leafcutter ants raising young ants in their colony.
- B A vampire bat regurgitating blood to feed an unrelated bat.
- C A dominant lion feeding on a zebra kill before its offspring.
- D A young orangutan spending a long period in parental care to learn complex social behaviours.

- A Write notes on primate behaviour.

- (c) Most of the wild dogs in a pack are related. Usually only one dominant female has offspring which other members of the pack will feed.

Explain why pack members feed offspring which are not their own.

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19. On returning to their roost after feeding, vampire bats may regurgitate blood to feed an unrelated individual in the same social group.

This is an example of

- A mutualism
- B altruism
- C social hierarchy
- D kin selection.

B Write notes on social behaviour in animals under the following headings:

- (i) social hierarchy and cooperative hunting; 4
- (ii) social insects. 4