Topic: Apiculture

Class: B.Sc Part –III (Hons.)

Paper- VII

Group – B

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Importance of Honey bees:

- **(i) Honey:**
- The honey is a neutral, natural valuable tonic for human body.
- Honey is a sweet, viscous edible fluid.
- Chemical composition of honey is
- (i) ash 1.00%,
- (ii) minerals (0.22 to 0.3 per cent), e.g., calcium, iron, phosphate and manganese,
- (iii) vitamins (0.2 to 0. 5 per cent), e.g., pantothenic acid, biotin, pyridoxine, choline, ascorbic acid, thiamine, riboflavin and niacin,

- (iv) Sugars (20 to 40 per cent), e.g., levulose (38.90%), dextose (21.28%), maltose (8.81 %) and sucrose (1.9%),
- (v) Water (60 – 80%),
- (vi) Amino acids, enzymes.
- Honey also contains pollen.
- The colour, flavour and smell of honey depend on the flowers from which nectar is collected.
- It is an energy rich food.
- One kilogram of honey contains 3200 calories.
- A number of Ayurvedic medicines are taken with honey.

- **(ii) Bee wax:**
- Bee wax is made of secretion of worker bees' abdominal glands.
- It is a product of industrial importance.
- It is used in the manufacture of many items including cosmetics, shaving cream, face cream, ointments, plasters, carbon papers, pencils, electric goods, toothpaste, lotions, furniture-polishes, boot-polishes, protective coating, ink paints and candles.

- It is also used in model and mould making and in printing industry.
- It is also used in the laboratory for microtomy with the common wax for block preparation of the tissues.
- **(iii) Pollination:**
- The honey bees are pollinators of many crop species such as sunflower, Brassica, apple and pear.

- **(iv) Medicinal value:**
- A drug, prepared from the bodies of honey bees, is used in the treatment of Diphtheria and some other dangerous diseases.
- The venom of stings of honey bees has been used in the treatment of rheumatoid arthritis and snake bite.