

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2022  
(Fourth Semester)

Branch – ZOOLOGY

APICULTURE

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 x 1 = 10)

- 1 Which of the following is NOT a product of Apiculture?  
(i) Pollen trap (ii) Bee venom  
(iii) Propolis (iv) Bee wax
- 2 What is the average life span of queen bee?  
(i) 22 – 42 days (ii) 60 days  
(iii) 90 days (iv) 2-7 years
- 3 Identify the noblest innovation in apiculture  
(i) Langstroth hive (ii) BIS hive  
(iii) Pot hive (iv) British hive
- 4 Identify the INCORRECT statement on synthetic comb in apiculture.  
(i) It is made up of plastic (ii) Combs can be sterilized  
(iii) Honey extraction is less (iv) Resist wax moth
- 5 Which of the following describes the relationship between crops and honey bees in yielding nectar and pollen?  
(i) Commensalism (ii) Parasitism  
(iii) Predatory (iv) Mutualism
- 6 Which of the following describes when a bee visits same species of crop until the resource is exhausted?  
(i) Floral fidelity (ii) Monophagous  
(iii) Crop sustainability (iv) Monopoly
- 7 Which of the following parasite have its lifecycle in thoracic region of honey bees?  
(i) *Megachile disjuncta* (ii) *Platybolium alvearium*  
(iii) *Acarapis woodi* (iv) *Palarus orientalis*
- 8 Identify the pathogen causing mummification of diseased larva  
(i) *Bacillus larvae* (ii) *Ascospaera apis*  
(iii) *Streptococcus pluton* (iv) *Nosema apis*
- 9 What is the most advanced method of honey collection?  
(i) Flow frames (ii) Centrifugation  
(iii) Crush & drain (iv) Newton's hive
- 10 Choose the chemical compound that is responsible for antimicrobial property in honey  
(i) Gluconic Acid & Hydrogen Peroxide (ii) Fructose  
(iii) Glucose (iv) Glycerin

**SECTION - B (35 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 7 = 35)

- 11 a With examples state the indigenous and exotic varieties of honey bees in India.  
OR  
b Differentiate the morphological & anatomical structures between queen and worker honey bees.
- 12 a Write a short note on "social behavior in honey bees".  
OR  
b Write short notes on (i) comb foundation sheet (ii) bee brush (iii) swarm trap.
- 13 a List out the significant nectar and pollen yielding crops of India.  
OR  
b State the significance of bee hive inspection.
- 14 a Describe the steps involved in colony maintenance during rainy season.  
OR  
b Describe the steps involved in control of chalk brood and stone brood fungal disease in *Apis*.
- 15 a List out the common by-products and value added products of Apiculture.  
OR  
b List out the medicinal values of honey.

**SECTION - C (30 Marks)**

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 Apiculture industry and marketing is a lucrative business, which offers for employment in India – Justify.
- 17 With suitable illustrations discuss on the construction and significance of Newton's hive, Langstroth hive, bee extractor.
- 18 Give an account on site selection and colony maintenance during dearth period.
- 19 Discuss on the care and maintenance of colony during summer and winter season.
- 20 Give an outline on chemical composition of honey. Add notes on the traditional method of honey extraction.

Z-Z-Z

END