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**GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY UNIVERSITY,  
ODISHA, GUNUPUR  
(GIET UNIVERSITY)**

**B. Sc. (Ag.)(Fourth Semester) Examinations, April – 2025  
ENT-223– Management of Beneficial Insects**

Time: 2 hrs

Maximum : 50 Marks

**The figures in the right hand margin indicate marks.**

**PART – A**

**Q.1. Fill in the blanks with suitable word / figure.****(0.5 x 10 = 5 Marks)**

- a. Central Bee Research and Training Institute located at \_\_\_\_\_
- b. Royal jelly is secreted by \_\_\_\_\_
- c. Parthenium weed is controlled by which bioagent \_\_\_\_\_
- d. \_\_\_\_\_ part of honeybee infected by *Acarpsis woodi*
- e. Leading producer of lac in the world \_\_\_\_\_
- f. Herold's gland is present in \_\_\_\_\_
- g. Lac harvested from used brood stick is called as \_\_\_\_\_
- h. Number of kilograms of cocoons required to obtain 1 kg of reeled silk is called \_\_\_\_\_
- i. Rearing of silkworms in two or three tiers of concrete beds is called \_\_\_\_\_
- j. *Opuntia dillenii* can be controlled by \_\_\_\_\_

**Q. 2. Define (or) Explain the following in one or two sentences.****(1 x 5 = 5 Marks)**

- a. Denier
- b. Bee pasturage
- c. Button lac
- d. Mountages
- e. Filature

**Q3. Match the following****(0.5 x 10 = 5 Marks)**

Column – A	Column – B
(a) Scavengers	(i) Lac inoculation
(b) Pebrine	(ii) Honey bees
(c) Ranjeeni	(iii) Beetles
(d) Interlacing method	(iv) Uzi fly
(e) Perforated cocoons	(v) Golden yellow
(f) Mellitin	(vi) Jharkhand
(g) Muga silk	(vii) Bee venom
(h) CSTRI	(viii) Mulberry planting
(i) Varrora mite	(ix) Lac insect
(j) Angular system	(x) Silk worm

**Q4. Write True or False against each statement**

**(0.5 x 10 = 5 Marks)**

- a. Acarine disease is caused by a virus
- b. Cultivation of Kusmi and Rangeeni stain in the same field increases the quantity and quality of the lac.
- c. The most violent bee is little bee.
- d. *Elaeidobius kamerunicus* is an important pollinator of fig.
- e. In india bee keeping was introduced in 1882 in Bengal.
- f. NISA is located at Chhattisgarh.
- g. One trichocard contains 20,000 parasitised eggs.
- h. 1<sup>st</sup> and 2<sup>nd</sup> instar larva of silk worm attacked by uzi fly.
- i. The duration where no honey flow is called as dearth period.
- j. Male lac produces more lac/resins.

**PART – B**

**Attempt ANY FIVE questions. All question carries equal marks (6 x 5 = 30 Marks)**

5. Write about various insect pest and diseases of silk worm along with their management.
6. Explain about the chawki rearing of silkworm.
7. Explain about the cultivation methods and processing of lac in details.
8. Explain about different diseases of the honeybees with their management practices.
9. Explain about the effect of insecticide on honey bees and their control measures.
10. What is apiary? Mention its importance and explain the lifecycle of honeybees with a diagram.

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