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Enrollment No.....



**Faculty of Agriculture**  
**End Sem Examination May-2024**  
**AG3CO47 Management of Beneficial Insects**  
Programme: B.Sc. (Hons.)    Branch/Specialisation: Agriculture

**Duration: 3 Hrs.**

**Maximum Marks: 50**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

- Q.1 i. Honeybee is belonging to phylum? **1**  
(a) Arthropoda (b) Chordata (c) Nematoda (d) Mollusca
- ii. Which of the following is known as smallest bee? **1**  
(a) A. cerena (b) A. dorsata  
(c) A. melifera (d) A. florea
- iii. Cultivation of mulberry is known as \_\_\_\_\_. **1**  
(a) Sericulture (b) Moriculture  
(c) Apiculture (d) Casting
- iv. Central Silk Board situated at \_\_\_\_\_. **1**  
(a) Kanpur (b) Jharkhand (c) Bangalore (d) Indore
- v. The process of killing pupa inside cocoon is termed as \_\_\_\_\_. **1**  
(a) Mounting (b) Reeling (c) Brushing (d) Stifling
- vi. Bacillus bombysepticus is the scientific name of which disease? **1**  
(a) Grasserie disease (b) Flacherie disease  
(c) Muscardine disease (d) NPV
- vii. The term "Lac" synonyms Lakh in hindi which itself is derivative from word? **1**  
(a) German (b) Greek (c) Sanskrit (d) Urdu
- viii. Immature lac also known as \_\_\_\_\_. **1**  
(a) Stick lac (b) Phunki lac (c) Empty lac (d) Ari lac
- ix. \_\_\_\_\_ defined first used term "biological control" to signify the use of natural enemies to control insect pests. **1**  
(a) H.S. Smith (b) T.M. Morgan  
(c) H. Brown (d) H. Purkinje

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- x. Which of the following is beneficial predator? **1**  
(a) Helicoverpa armigera (b) Chrysoperla carnea  
(c) Both of these (d) None of these
- Q.2 i. Give the meaning and definition of Apiculture. **1**  
ii. Write the scientific position of rock bee. **2**  
iii. Write down the different species of honeybee with their characters. **5**
- OR iv. Explain the caste and dance of honeybee in detail. **5**
- Q.3 i. Define Supercedure. **1**  
ii. Write down the mulberry classification based on moults. **3**  
iii. Discuss the natural enemies of honeybee. **4**
- OR iv. Give the types of silkworms with their classification. **4**
- Q.4 i. Define swarming and absconding. **2**  
ii. Explain the major disease of silkworm in briefly. **6**
- OR iii. Describe any two: **6**  
(a) Cultivation of mulberry plant  
(b) Biology of Silkworm  
(c) Voltinism  
(d) Harvesting of Cocoon
- Q.5 i. Why lac cultivation is necessary? **2**  
ii. Enlist important forms of lac. **2**  
iii. Discuss the major natural enemies of lac insect. **4**
- OR iv. Write down the type of strain with their months. **4**
- Q.6 Attempt any two: **4**  
i. Discuss the weed killing agents with example. **4**  
ii. Write down the methods of biological control. **4**  
iii. What is parasitism? Classify in detail. **4**

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## Marking Scheme

### Management of Beneficial Insects (T) - AG3CO47 (T)

Q.1	i)	Honey bee is belonging to phylum? (a) Arthropoda	1
	ii)	Which of the following is known as smallest bee? (d) <i>A. florea</i>	1
	iii)	Cultivation of mulberry is known as____ (b) Moriculture	1
	iv)	Central Silk Board situated at____. (c) Bangalore	1
	v)	The process of killing pupa inside cocoon is termed as____. (d) Stifling	1
	vi)	<i>Bacillus bombysepticus</i> is the scientific name of which disease? (b) Flacherie disease	1
	vii)	The term "Lac" synonyms Lakh in hindi which itself is derivative from word? (c) Sanskrit	1
	viii)	Immature lac also known as____. (d) Ari lac	1
	ix)	_____defined first used term "biological control" to signify the use of natural enemies to control insect pests. (a) H.S. Smith	1
	x)	Which of the following is beneficial predator? (b) <i>Chrysoperla carnea</i>	1
Q.2	i.	Give the Meaning and definition of Apiculture.	1
	ii.	Write the scientific position of Rock bee?	2
	iii.	Write down the different species of honey bee with their charterers.	5
OR	iv.	Explain the caste and dance of honey bee in detail. (Caste 3 marks and Dance 2 marks)	5
Q.3	i.	Define supercedure.	1

	ii.	Write down the mulberry classification based on moults.	3
	iii.	Discuss the natural enemies of honey bee. (One disease carry 1 marks)	4
OR	iv.	Give the types of silkworm with their classification. (One type carry 1 marks)	4
Q.4	i.	Define swarming and absconding. (Swarming 1 marks and absconding 01 Marks)	2
	ii.	Explain the major disease of silkworm in briefly. (One disease 1.5 marks)	6
OR	iii.	Describe any two: (Each of 3 Marks) (a) Cultivation of mulberry plant (b) Biology of Silkworm (c) Voltinism (d) Harvesting of Cocoon	6
Q.5	i.	Why lac cultivation is necessary?	2
	ii.	Enlist Important forms of lac. (One lac carry 1 marks)	2
	iii.	Discuss the major natural enemies of lac insect. (One natural enemy carry 2 marks)	4
OR	iv.	Write down the type of strain with their months. (One strain 1 marks)	4
Q.6		Attempt any two:	
	i.	Discuss the weed killing agents with example. (one agents carry 1 marks)	4
	ii.	Write down the methods of biological control.	4
	iii.	What is parasitism? Classify. (Definition 1 marks and classification 3 marks)	4