

**CERTIFICATE IN SERICULTURE (CIS)**

**Term-End Examination**

**December, 2011**

**BLP-004 : CROP PROTECTION**

*Time : 2 hours*

*Maximum Marks : 50*

*Note : This paper has three questions. Answer any two questions. Marks for each questions are indicated against it.*

1. (a) Answer **any five** questions in 5-7 sentences each. **5x3=15**
- (i) Write any two foliar diseases of mulberry and give their symptoms.
  - (ii) What are the factors responsible for out break of pests in mulberry ?
  - (iii) How to manage pebrine disease in mulberry silkworm ?
  - (iv) Explain the biological control of uzifly in mulberry silkworm.
  - (v) Define systemic and non systemic fungicides.
  - (vi) Describe the virosis disease in Tasar and oak Tasar silkworms.

- (b) Choose the correct answer : **10x1=10**
- (i) Stem canker in mulberry during nursery is caused by
- (A) *Fusarium solani*
  - (B) *Trichoderma harzianum*
  - (C) *Botryodiplodia theobromae*
  - (D) *Phoma Sorghina*.
- (ii) Biocontrol is prepared from :
- (A) *Trichoderma harzianum*
  - (B) *Verticillium Chlamydospori*
  - (C) Carbofuran
  - (D) *Macrophomina phaseolina*.
- (iii) Collection and distinction of pest attacked mulberry leaves is :
- (A) Biological control
  - (B) Chemical control
  - (C) Mechanical control
  - (D) All of the above
- (iv) Mulberry mealy bug is a :
- (A) Shoot feeder
  - (B) Leaf eater
  - (C) Sap sucker
  - (D) Leaf roller

- (v) Muscardine disease in mulberry silkworm is caused by :
- (A) *Nosema bombycis*
  - (B) *Bacillus thuringiensis*
  - (C) *Beauveria bassiana*
  - (D) *Alternaria alternata*
- (vi) Coudium means :
- (A) Viral particle
  - (B) Fungal spore
  - (C) Bacterial spore
  - (D) All of the above
- (vii) Chlorsis means :
- (A) Yellowing of normal green tissue
  - (B) More greening of normal tissue
  - (C) White patches on normal green tissue
  - (D) Mycelial growth on leaf surface
- (viii) Thrips feed on :
- (A) Roots
  - (B) Leaves
  - (C) Stems
  - (D) Both roots and stems.

- (ix) Fungicide pack having red/yellow mark indicates the safe period of :
- (A) 0 days                      (B) 5-7 days  
(C) 15-20 days                (D) 3-5 days
- (x) Disinfectant means :
- (A) Any material or agent that kills the plants.  
(B) Any material or agent that kills microorganisms.  
(C) Any material or agent that kills insects.  
(D) Any material or agent that kills the rodents.

2. Answer in *one* sentence : **15x1=15**

- (a) (i) What causes Muscardine disease in mulberry silkworm ?  
(ii) Name the causal agent of root knot disease in mulberry.  
(iii) Which is the favourable temperature and moisture for the outbreak of root rot disease in mulberry ?  
(iv) What is a grub ?  
(v) What is a fungicide ?  
(vi) Knapsack sprayers are generally useful for which type of plantation ?  
(vii) The degree of toxicity of fungicides is indicated in which colours ?

- (viii) What is the concentration of bleaching powder used for disinfecting the rearing house ?
- (ix) What is personal hygiene ?
- (x) Name the silkworm bed disinfectant
- (xi) What is meant by *peroral* ?
- (xii) What is meant by pierced cocoon ?
- (xiii) What is the cocoon yield loss in mulberry silkworm due to uzifly attack ?
- (xiv) Which is the causative agent of flacheric in muga silkworm ?
- (xv) What is the meaning of EC ?

(b) Match column A with column B :  $10 \times 1 = 10$

Column - A	Column - B
(i) Phoma sorghina (A)	Grasseuie
(ii) Furadars (B)	Uzifly
(iii) Leaf roller (C)	Carbofuran
(iv) Nursery guard (D)	Leaf blight
(v) Milky disease (E)	Vespa orientalis
(vi) Black Scar (F)	Collar rot
(vii) Micro sporidiosis (G)	Aza dirachtin
(viii) Foliar disease (H)	Leaf eater
(ix) Wasp (I)	Pebrine
(x) Neem based insecticide (J)	Trichoderma Pseudokoningii

3. (a) Write short notes on *any five* of the following in 2-3 sentence. 5x2=10
- (i) Bionema
  - (ii) Predator
  - (iii) Pest
  - (iv) Chronic disease
  - (v) Pesticide
  - (vi) Sources of infection for Muscardine disease in mulberry silkworm.
  - (vii) Hairy caterpillar of Eri silkworm.
- (b) Fill in the blanks. 10x1=10
- (i) The Scientific name of silkworm is *Bombyx mori*
  - (ii) Pebrine disease in muga silkworm is also known as \_\_\_\_\_.
  - (iii) Crop loss due to root knot disease in mulberry is \_\_\_\_\_.
  - (iv) Fusarium Wilt in Eri Silkworm host plant is caused by \_\_\_\_\_.
  - (v) Bio fungicide used in integrated disease management is \_\_\_\_\_.
  - (vi) The spray solution quantity required for one acre mulberry garden is \_\_\_\_\_.
  - (vii) Danger - Poison label on fungicide pack indicates that the product is \_\_\_\_\_.
  - (viii) Leaf blister is a disease associated with \_\_\_\_\_ silkworm host plant.
  - (ix) Chlorine dioxide is a \_\_\_\_\_.
  - (x) Nylon net is used for the control of \_\_\_\_\_.

(c) Tick the correct answer.

5x1=5

- (i) Soil solarization is :
- (A) Soil exposed to sunny days
  - (B) Soil exposed to cloudy days
  - (C) Soil exposed to high humidity
- (ii) Bioformulations are used for :
- (A) Chemical control of pests
  - (B) Biological control of diseases
  - (C) Physical control of pests.
- (iii) The Jassids in mulberry are commonly called as :
- (A) June - July beetle
  - (B) May - June beetle
  - (C) Leaf hoppers
- (iv) Mycosis is caused by :
- (A) Bacteria
  - (B) Fungi
  - (C) Virus
- (v) The quantity of fungicide required for preparation of 180 litres of 0.2% spray solution is :
- (A) 360 g
  - (B) 180 g
  - (C) 720 g
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