

**CERTIFICATE IN SERICULTURE (CIS)**

**Term-End Examination**

**June, 2012**

**BLP-004 : CROP PROTECTION**

*Time : 2 hours*

*Maximum Marks : 50*

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

1. (a) Answer *any five* questions in 5-7 sentences each : **5x3=15**
- (i) Write a note on root knot disease of mulberry.
  - (ii) What are the factors responsible for spreading of leaf spot disease in mulberry ?
  - (iii) How to manage Muscardine disease in mulberry silkworm ?
  - (iv) Explain physical control of uzi fly in mulberry silkworm.
  - (v) Define systemic mulberry diseases.
  - (vi) Describe Bacteriosis disease in Tasar silkworms.

- (b) Choose the correct answer : 10x1=10
- (i) Cutting rot disease in mulberry during nursery is caused by :
- (A) *Botryodiplodia theobromae*
  - (B) *Fusarium solani*
  - (C) *Trichoderma harzianum*
  - (D) *Phoma sorglina*
- (ii) Raksha is prepared from :
- (A) *Verticillium chlamydosporium*
  - (B) *Trichoderma harzianum*
  - (C) Carbofuran
  - (D) *Macrophomina phasiolina*
- (iii) Pest /pathogen control through chemicals is known as :
- (A) Mechanical control
  - (B) Biological control
  - (C) Chemical control
  - (D) All of the above
- (iv) Mulberry white fly is a :
- (A) Leaf eater
  - (B) Shoot feeder
  - (C) Sap sucker
  - (D) Leaf roller
- (v) Pebrine disease in mulberry silkworm is caused by :
- (A) *Beauveria bassiana*
  - (B) *Nosema bombycis*
  - (C) *Bacillus thuringiensis*
  - (D) *Alternaria alternata*

- (vi) The external alterations visible on the plant due to a disease is called :
- (A) Pathogen
  - (B) Host
  - (C) Symptom
  - (D) All of the above
- (vii) Swabbing means :
- (A) Foliar spray of fungicide
  - (B) Soil application of fungicide
  - (C) Smearing of chemical on the stem/branch of a plant
  - (D) Organic fertilizer application
- (viii) Stem borer feeds on :
- (A) Roots
  - (B) Leaves
  - (C) Both roots and stems
  - (D) Stems
- (ix) Fungicide pack having green mark indicates the safe period of :
- (A) 0 days
  - (B) 5 - 7 days
  - (C) 3 - 5 days
  - (D) 15 - 20 days
- (x) A fungicide means :
- (A) A material killing plants
  - (B) A material killing fungi
  - (C) A material killing insects
  - (D) A material killing rodents

2. (a) Answer in *one* sentence : 15x1=15
- (i) What causes pebrine disease in mulberry silkworm ?
  - (ii) Name the causal agent of powdery mildew disease in mulberry.
  - (iii) Explain the chemical control of root rot disease in mulberry.
  - (iv) What is a nymph ?
  - (v) What is a parasitoid ?
  - (vi) Explain how a bucket sprayer works ?
  - (vii) Why a soil injector is used ?
  - (viii) At what concentration sanitech/serichlor is used as disinfectant in rearing homes ?
  - (ix) Name the causal organism of muscardine disease in Eri silkworm.
  - (x) What is rearing hygiene ?
  - (xi) What is meant by predisposing factor ?
  - (xii) What is a stifled cocoon ?
  - (xiii) What is a chronic disease ?
  - (xiv) Name the causal organism of pebrine disease in Tasar silkworm.
  - (xv) What is meant by WP ?

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

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|--------------------------------------|---|
| (i) <i>Botryodiplodia theobromae</i> | (A) <i>Verticillium chlamydosporium</i> |
| (ii) Foliar disease                  | (B) Mummified                           |
| (iii) Soil borne disease             | (C) Benzoic acid                        |
| (iv) Bionema                         | (D) Through mouth                       |
| (v) Muscardine                       | (E) Die back                            |
| (vi) Bed disinfectant                | (F) Blackish grey in colour             |
| (vii) Peroral                        | (G) Leaf rust                           |
| (viii) Uzi fly                       | (H) Mycelium                            |
| (ix) Hypha                           | (I) Soil                                |
| (x) Tasar keet oushad                | (J) Vijetha                             |

3. (a) Write short notes on *any five* of the following in 2-3 sentences :  $5 \times 2 = 10$

- (i) Biological control of uzi fly of mulberry silkworm
- (ii) Grub
- (iii) Pesticide calculation
- (iv) Pierced cocoon
- (v) Insecticide
- (vi) Sources of infection for pebrine disease in mulberry silkworms
- (vii) Flacherie disease of Muga silkworm

- (b) Fill in the blanks : 10x1=10
- (i) The scientific name of \_\_\_\_\_ of Tasar silkworm is *Blepharipa zebina*.
  - (ii) Flacherie disease in Muga silkworm is also known as \_\_\_\_\_.
  - (iii) Crop loss due to root rot disease in mulberry is \_\_\_\_\_.
  - (iv) The hairy caterpillar of \_\_\_\_\_ silkworm host plant is *euproctis lumata*.
  - (v) The emulsified concentrate of a fungicide indicates that it is a \_\_\_\_\_.
  - (vi) The spray solution required for 0.5 acre of mulberry garden is \_\_\_\_\_.
  - (vii) Caution label on the fungicide pack indicates that the product is \_\_\_\_\_.
  - (viii) Mealy bug is a \_\_\_\_\_ sucker.
  - (ix) Bleaching powder is a \_\_\_\_\_.
  - (x) Clipping and destroying the pest attacked parts is \_\_\_\_\_ control.
- (c) Tick the correct answer. 5x1=5
- (i) A disinfectant.
    - (A) Kills the microorganisms
    - (B) Enhances the growth of microorganism
    - (C) None of the above

- (ii) Bioformulations are used for :
- (A) Chemical control of pests
  - (B) Biological control of diseases
  - (C) Physical control of pests
- (iii) A plant which is invaded by a disease is :
- (A) Pest
  - (B) Host
  - (C) Pathogen
- (iv) Grasserie disease in mulberry silkworm is caused by :
- (A) Bacteria
  - (B) Fungus
  - (C) Virus
- (v) The quantity of fungicide required for preparation of 100 litres of 0.2% spray solution is :
- (A) 360 g
  - (B) 180 g
  - (C) 200 g
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