

**CERTIFICATE IN SERICULTURE (CIS)**

**Term-End Examination**

**June, 2014**

**BLP-004 : CROP PROTECTION**

*Time : 2 hours*

*Maximum Marks : 50*

**Note : Answer any two questions out of three.**

1.(a) Answer *any five* in 5-7 sentences each. **5x3=15**

- (i) Name any three nursery diseases of mulberry & give their symptoms.
- (ii) Briefly describe two root diseases of mulberry with their symptoms & control.
- (iii) Name any three leaf eaters insect pests of mulberry with damage symptoms & control measures.
- (iv) Name three common diseases of mulberry silkworm with symptoms & their management.
- (v) Name any two leaf eaters of Frihost plants with symptoms & their management.
- (vi) Describe the microsporidiosis in tasar and oak tasar silkworms.

(b) **Choose the correct answer.** **10x1=10**

- (i) Powdery mildew is caused by \_\_\_\_\_.  
(A) Meloidogyne (incognita)  
(B) Phyllactinia corylea  
(C) Cercospora moricola  
(D) Fusarium solani

- (ii) Maconellicoccus hirsutus is a \_\_\_\_\_.
- (A) Leaf eater                      (B) Sapsucker  
(C) Root feeder                      (D) Stem borer
- (iii) Integrated pest management involves \_\_\_\_.
- (A) Biological control  
(B) chemical control  
(C) mechanical/physical control  
(D) All
- (iv) To get 0.2% DDVP (Dichlorvos 76% EC) Spray solution mix \_\_\_\_\_ ml insecticide with 100 litres of water.
- (A) 130 ml                      (B) 100 ml  
(C) 260 ml                      (D) 200 ml.
- (v) Young ones of uzifly are called.
- (A) Grubs                      (B) Maggots  
(C) Caterpillars                      (D) Nymphs
- (vi) Pebrine in silkworm is a \_\_\_\_\_ disease.
- (A) Fungal                      (B) Bacterial  
(C) Microsporidian                      (D) Viral
- (vii) Muscardine symptoms could be observed in the following stage of silkworm.
- (A) Egg stage                      (B) Larval stage  
(C) Pupal stage                      (D) All
- (viii) Cocoons with multiple irregular holes are due to \_\_\_\_\_.
- (A) Uzifly                      (B) Cockroaches  
(C) Dermistid beetles                      (D) Lizards

(ix) Sealing of anal tips, chain type excreta and rectal protrusion indicate \_\_\_\_\_ disease.

- (A) Bacteriosis      (B) Microsporidiosis  
(C) Virosis          (D) None

(x) Planting of marigold as intercrop in mulberry is cultural method for \_\_\_\_\_.

- (A) Rootrot      (B) Root knot Nematode  
(C) Rootgrubs   (D) Termites

2. (a) Answer in one sentence. 15x1=15

- (i) What are systemic mulberry diseases?
- (ii) What is fungicide ?
- (iii) What is the safe period of a fungicide if its packing is having blue mark ?
- (iv) Type of commonly used sprayers used in mulberry gardens for spraying by a single person.
- (v) How to prepare 0.2% concentration of a fungicide?
- (vi) What is a bio-formulation ?
- (vii) What is meant by per-oral ?
- (viii) Name any three important shoot/root feeding insect pests.
- (ix) Scientific Name of predatory beetle recommended for management of tukra in mulberry.
- (x) Name the silkworm disease which is transmitted from moth to egg.

- (xi) What is quantity of disinfectant required for 1sq. Metre of floor area?
- (xii) Name the biological agent recommended in IPM of uzifly.
- (xiii) What are systemic & non-systemic fungicides?
- (xiv) Name common silkworm diseases prevalent during low temperature and high humidity.
- (xv) Name any two non-insect pests of silkworm.

(b) *Match column A with column B.* 10x1=10

Column A	Column B
(i) Root rot disease	(A) Pebrine
(ii) Bleaching powder	(B) Open type
(iii) Beauveria bassiana	(C) Indian uzifly
(iv) Eri-cocoon	(D) Pest of stored cocoons
(v) Blepheripa zebina	(E) Tasar cocoon
(vi) Nosema bombycis	(F) Bionema
(vii) Pedunde withring	(G) Muscardine
(viii) Dermestid beetles	(H) Raksha
(ix) Exorista bombycis	(I) Tasar uzifly
(x) Root knot disease	(J) disinfectant

3. (a) Write short notes of any *five* : 5x2=10
- (i) Sap suckers of mulberry.
  - (ii) Nursery diseases of mulberry.
  - (iii) Toxicity of fungicides.

- (iv) Khapsack sprayer.
- (v) Chemical control of dermestid beetles.
- (vi) Sooty mould in tasar silkworm host plant.
- (vii) Predators of Eri silkworms.

(b) **Fill in the blanks:**

**5x4=20**

- (i) *Cercospora moricola* causes \_\_\_\_\_ disease in mulberry.
- (ii) Leaf rust in mulberry is caused by \_\_\_\_\_.
- (iii) The deformity symptom caused by pink mealy bug in mulberry is also called \_\_\_\_\_.
- (iv) Mulberry thrips are commonly called as \_\_\_\_\_ flies.
- (v) Full form of BmNPV is \_\_\_\_\_.
- (vi) Common mulberry silkworm diseases during summer are \_\_\_\_\_ and \_\_\_\_\_.
- (vii) Presence of black scar on the silkworm body indicates \_\_\_\_\_ attack.
- (viii) Pebrine disease in tasar silkworm is commonly known as \_\_\_\_\_.
- (ix) Virosis in tasar & oak tasar silkworm is known as \_\_\_\_\_.
- (x) Leafy field loss in mulberry due to mealy bugs is estimated at \_\_\_\_\_ kgs/hac/year.

(c) **Tick the correct answer.**

**5x1=5**

- (i) May June beetle is also called as \_\_\_\_\_.
- (A) Jassids
- (B) white grub
- (C) cutworm.

- (ii) Pheromone traps Pest can be controlled by installing.
- (A) Cut worm                      (B) Leafroller  
(C) Jassids
- (iii) 0.2% streptomycin is recommended for \_\_\_\_\_.
- (A) Fungal leaf blight  
(B) Bacterial Leaf blight  
(C) leafrust
- (iv) Predator of Tasar silkworm is \_\_\_\_\_.
- (A) Uzifly                      (B) Ichneumon Fly  
(C) Redavid bug
- (v) Chemical that kills micro organisms is called \_\_\_\_\_.
- (A) Disinfectant                      (B) Weedicides  
(C) Insecticides

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