No. of Printed Pages : 7

BLP-004

00977

CERTIFICATE IN SERICULTURE (CIS)

Term-End Examination

December, 2013

BLP-004 : CROP PROTECTION

Time : 2 hours *Maximum Marks : 50*

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

1. (a) Answer **any five** : **5x3=15**

(i) Name any three fungal foliar diseases of mulberry with symptoms.

(ii) What are the factors responsible for spreading of nursery diseases in mulberry ?

(iii) Name any three sucking pests of mulberry with period of occurrence and damage symptoms

(iv) Name two important insect pests of mulberry silkworm and damage symptoms and control measures for any one of them.

(v) Name any two foliar diseases of erihost plant with symptoms and control measures.

(vi) Describe the bacteriosis in Tasar and Oak tasar silkworms.

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

(i) Grasserie in silkworm is caused by _____ .

(A) Bacillis species

(B) *Beauveria bassiana*

(C) Bm NPV

(D) *Nosema bombycis*

(ii) Raksha, a bio-fungicide contains _____ .

(A) *Trichoderma Harzianum*

(B) *Trichogramma Chilonis*

(C) *Verticellium Chlamydosporium*

(D) *Trichoderma pseudokoningii*

(iii) Maximum occurrence of leaf roller in Mulberry is during_____ .

(A) Feb-March

(B) May

(C) June-July

(D) Sept-Nov

(iv) To prepare 0.15% DDVP (Dichlorvos 76%EC) spray solution mix_____ ml insecticide in 100 lts water.

(A) 130

(B) 100

(C) 260

(D) 200

(v) Young ones of grass hopper are called_____ .

(A) Grubs

(B) Maggots

(C) Caterpillars

(D) Nymphs

(vi) To prevent silkworm disease incidence during winter, rear silkworms at temperature between_____ .

(A) 22-24^0 C

(B) 24-26^0 C

(C) 26-28^0 C

(D) 28-30^{0}C.

(vii) Vijetha supplement is used to prevent_____ .

(A) Flacherie

(B) Grasserie

(C) Pebrine

(D) Muscardine

(viii) Maximum Uzi infestation is during_____ .

(A) Rainy Season

(B) Winter Season

(C) Summer Season

(D) All of the above

(ix) Erisilkworm host plant is _____ .

(A) Sal

(B) Arjun

(C) Castor

(D) Asan

(x) Pebrine disease symptom could be observed in following stage of mulberry silkworm.

(A) Egg stage

(B) Larva stage

(C) Pupal and moth stage

(D) All of the above

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

(i) What do you mean by foliar diseases of mulberry?

(ii) What are non-systemic fungicides?

(iii) What is the safe period of fungicide if its packing is having red/yellow mark?

(iv) Name one Major root disease of mulberry.

(v) How to prepare 2% formalin spray solution (37% of EC) ?

(vi) Name any two root/shoot feeding insect pests of mulberry.

(vii) What is the scientific name of mealy bug.

(viii) Name caustire agent of grasserie disease in mulberry silkworm.

(ix) What is scientific name of Stem borer.

(x) Name the insecticide used against Dermestid beetles.

(xi) What is the quantity of disinfectant required for 1 sq. feet floor area.

(xii) To prepare 100 lts of 2.5% sanitech in 0.5% slaked lime, mention the quantity of various ingredients required.

(xiii) Differentiate between parasitoid and predator.

(xiv) How do you do surface disinfection of silkworm eggs?

(xv) Name any two predators of Tasar silkworms.

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

(i)	*Antheraea assama*	(A)	Bed disinfectant
(ii)	Lime powder	(B)	Pebrine detection.
(iii)	Grasserie & Flacherie	(C)	Pink mealy bug.
(iv)	Mother moth examination	(D)	Leaf roller
(v)	Vijetha	(E)	Winter & Rainy season
(vi)	Flacherie & Muscardine	(F)	Chlorine dioxide
(vii)	Bavistin	(G)	Fungicide
(viii)	Sanitech	(H)	Summer season
(ix)	Jassids	(I)	Muga silkworm
(x)	*Scymnus coccivova*	(J)	Disinfectant.

3. (a) Write short notes on **any five** of the following: : **5x2=10**

(i) Soil injector
(ii) Precautions while spraying fungicides
(iii) Out break of uzifly
(iv) Management of white fly in mulberry
(v) Wingless grass hopper
(vi) Virosis in Tasar silkworm
(vii) Muscardine in Muga silkworm.

(b) Fill in the blanks : **10x1=10**

(i) Xanthomonas compestris causes _____ diseases in mulberry.
(ii) Leaf spot in mulberry is caused by _____.
(iii) The damage symptom caused in mulberry by jassids due to injection of toxic virus is called_____.

(iv) Yellow sticky traps are used to control_____ in mulberry.

(v) _____ disease in *Bombyx mori* is caused either by virus, bacteria or association of both.

(vi) A disease of long duration not acute is termed as _____ disease.

(vii) Safe period of fungicide having the green mark on its pack is _____

(viii) Yellowing of normal green tissues due to partial failure of cholorphyll development is termed as _____

(ix) _____ number of cryptolaemus beetles are recomended per acre per year.

(x) IDM involves the application of both Dithane M-45 and _____ .

(c) Tick the correct answer : **5x1=5**

(i) Among the following non-mulberry silkworms _____ is reared in doors.

(A) Oak Tasar
(B) Eri
(C) Muga

(ii) *Trichogramma Chilonis* is recomended to control_____.

(A) Bihar hairy caterpillar
(B) Cut worm
(C) Leaf roller

(iii) NPV infected silkworm exhibit symptom of _____ .

(A) Black rotting
(B) Spots on body
(C) Swollen inter-segmental region

(iv) Through sprinkler irrigation _____ mulberry pests can be controlled.
(A) Thrips
(B) Cutworm
(C) Leaf roller

(v) Uzi powder/vzicide acts as _____.
(A) Larvicide
(B) Ovicide
(C) Both