CERTIFICATE IN SERICULTURE

Term-End Examination

December, 2009

00633

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*** question in 5-7 sentences each : **5x3=15**

(i) What is a foliar disease ? List the major foliar diseases of mulberry.

(ii) Give an account of period of occurrence and extent of damage by uzi fly in mulberry silkworm and its physical control measures.

(iii) What is biological control ? How it differs from other control measures ?

(iv) Write briefly about the diseases that attack mulberry during mulberry plantation.

(v) What are the symptoms of mealy bug attack (Tukra) on mulberry plant ?

(vi) What are the symptoms of pebrine disease of Tasar silkworm ?

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

(i) Streaks and blotches on the leaf caused by

(A) Jassid
(B) Thrips
(C) Leaf roller
(D) Termite

(ii) "Hopper burn" is due to the attack of

(A) Jassid
(B) Thrips
(C) White fly
(D) Mealy bug

(iii) *Cryptolaemus montrouzieri* is recommended as a biocontrol agent for

(A) White fly
(B) Mealy bug
(C) Jassid
(D) Thrips

(iv) Powdery mildew is caused by a

(A) Fungus
(B) Bacterium
(C) Virus
(D) Nematode

(v) Leaf rust is a

(A) Root disease
(B) Foliar disease
(C) Vascular disease
(D) Systemic disease

(vi) Collar rot during nursery plantation of mulberry is caused by

(A) *Phoma sorghina*

(B) *Bohyodiplodia theobromae*

(C) *Fusarium solani*

(D) *Alternaria alternata*

(vii) The duration of egg hatching in uzi fly (mulberry silkworm) is

(A) 10-20 hours

(B) 100-120 hours

(C) 48-60 hours

(D) None of the above

(viii) Virosis in Oak Tasar silkworm is caused by

(A) Polyhedral Inclusion Bodies

(B) Protozoa

(C) Fungi

(D) Bacteria

(ix) Muscardine in Eri Silkworm is caused by

(A) *Botrytis bassiana*

(B) *Bacillus thuringiensis var sotto*

(C) *Beauveria bassiana*

(D) *Nosema bombycis*

(x) Pseudomonas syringae pv. Mori causes

(A) Bacterial leaf blight is mulberry

(B) Leaf rust in oak

(C) Bacterial leaf blight in eri

(D) Bacterial leaf blight in muga

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

(i) What is a leaf eating pest ?

(ii) Name the important leaf sucker pests of the mulberry.

(iii) What is the scientific name of Jassid attacking mulberry ?

(iv) Write the chemical control of mulberry thrips.

(v) Name the causal agent of leaf spot disease of mulberry.

(vi) Write the chemical control of leaf rust disease in mulberry.

(vii) How can we identify the attack of Bihar hairy catterpillar in mulberry ?

(viii) What is the scientific name of stem borer ?

(ix) How many eggs are laid by a female of uzi fly (mulberry silkworm) ?

(x) Why muscardine disease of mulberry silkworm is common during winter and rainy seasons ?

(xi) Is the pebrine disease transmitted from mother moth to silkworm egg ?

(xii) What is a systemic fungicide ?

(xiii) What is conidium ?

(xiv) What is the scientific name of hairy caterpillar of Eri food plant ?

(xv) What is the common name of Bavistin ?

(b) Match the following : **10x1=10**

(i)	Scale insect	*Alternaria altanata*
(ii)	*Trichoderma harzianum*	*Beauveria bassiana*
(iii)	Presence of holes in the stem	*Nosema bembycis*
(iv)	Mancozeb 75% WP	*Achoea janata*
(v)	Stem canker	Prothoracic hook
(vi)	Uzi maggot	Dithane M-45
(vii)	Semi looper of Eri slikworm	Stem borer
(viii)	Pebrine in mulberry silkworm	Raksha
(ix)	Muscardine in mulberry silkworm	*Saissetia nigra*
(x)	Fungal leaf blight of mulberry	Nursery diseases

3. (a) Write short notes an ***any five*** of the following : (in 2-3 sentence) **5x2=10**

(i) Endoparasite

(ii) Bacterial blight of mulberry

(iii) Preventive measures of dermestid beetle

(iv) Grasserie disease of mulberry silkworm

(v) Mulberry leaf roller

(vi) Cause of the Flacherie disease in mulberry silkworm

(vii) Seedling blight of Eri food plant

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

(i) The safe period after spraying of 0.2% DDVP against mealy bug is _____ days.

(ii) Presence of knots/galls on the root system is the symptom of _____.

(iii) *Fusarium solani* causes _____ disease in mulberry

(iv) Brownish irregular spots on leaf surface leaving shot hole is the symptom of _____ disease in mulberry

(v) The most important species of dermestid beetle infesting cocoons is _____.

(vi) _____ % of bleaching powder solution is sprayed on mulberry silkworms to detach uzi eggs

(vii) *Cercospora ricinella* causes _____ disease in Eri host plant.

(viii) Flacherie disease of muga silkworm is caused by _____.

(ix) The scientific name of Bihar hairy caterpillar of mulberry is _____.

(x) The sooty mould in host plants of oak taran silkworm is caused by _____.

(c) Tick the correct answer 5x1=5

(i) Predators are used for

(A) Chemical control of pests

(B) Biological control mulberry pests

(C) Physical control of pests

(ii) Root rot is a

(A) Foliar disease

(B) Soil borne disease

(C) Systemic disease

(iii) Pebrine is caused by

(A) Protozoa

(B) Fungi

(C) Bacteria

(iv) *Aleurodicus dispersus* is the scientific name of

(A) Jassid

(B) Thips

(C) White fly

(v) Red/yellow triangular mark on the pesticide pack indicates the presence of

(A) High amount of poison

(B) Moderate amount of poison

(C) Negligible amount of poison

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