Total Pages : 8

H-7442

M.Sc. (Semester-IV) Examination, 2022

FARM FORESTRY

(Forest Protection)

Time Allowed : Three Hours

Maximum Marks : 70

Minimum Passing Marks : 25

Note : This question paper is divided into four sections. Attempt questions from all four sections as per given directions. Distribution of marks is given in each section.

SECTION-A

Note : Attempt **any ten** questions. Each question carries **1** mark. [1x10=10]

1. (i) _____ is seen as a white patches on the surface of the leaves and can be controlled by foliar spray of Bavistin (0.01%).

(ii) _____ is the second largest order of insects in terms of number of species both in the forests and outside.

(iii) In tree species like _____ small seedlings are pricked out from nursery bed and raised in soil filled polythene bag containers kept in secondary nurseries, before they are planted out.

(iv) The durability of timbers against_____ is assessed by "graveyard test".

(v) Organophosphates, Carbamates etc. classes of insecticides are _____ (less/more) persistent in the environment.

(vi) Which among the following is a defoliator?

(a) *Hyblaea puera*

(b) *Plecoptera reflexa*

(c) *Calopepla leayana*

(d) All of these

(vii) The main food of ____beetles and larva is the mycelium and fructification of the fungus.

(a) *Lebeda nobilis*

(b) *Ambrosia*

(c) *Calopepla layana*

(d) *Urostylis punctigera*

(viii) Chewing and biting types of mouthparts are found in :

(a) Grasshopper

(b) Beetles

(c) Honey bee

(d) Obligate

(ix) The author of book "Tropical Forest Insect Pests-Ecology, Impact and Management" is :

(a) K.S.S. Nair

(b) W.M. Ciesla

(c) F.R. Wylie and M.R. Speight

(d) None of these

(x) Which among the following is true for Zygentoma (Silverfish)?

(a) Wingless insect

(b) Winged insect

(c) Kind of fish

(d) Arachnids

(xi) _____ is the largest order of insects worldwide.

(a) Lepidoptera

(b) Coleoptera

(c) Hymenoptera

(d) Hemiptera

SECTION-B

(Very Short Answer Type Questions)

Note : Attempt **any five** questions. Each question carries **2** marks. (Maximum word limit : **25-30** words) [2x5=10]

2. Comment on following in brief :

(i) Difference between insects and arachnids

(ii) Function of insects in the environment

(iii) Beneficial insects

(iv) Leaf spot disease

(v) Predators and Parasitoids

(vi) Insecticides

SECTION-C

(Short Answer Type Questions)

Note : Attempt **any five** questions. Each question carries **04** marks. (Maximum word limit : **250** words)

3. Explain the following : [4x5=20]

(i) Quarantine

(ii) Pink disease of Eucalyptus

(iii) Biological and physical methods of Pest management

(iv) Insect pests of Sal and Teak

(v) Feeding styles in insects

(vi) Nursery diseases

Section-D

(Essay Type Questions)

Note : Attempt **any three** questions. Each question carries **10** marks. (Word limit : more than **500** words) [10x3=30]

4. (i) Describe general principle of Insect Pest Management and discuss IPM in detail.

(ii) Describe different types of diseases and its symptoms in detail.

(iii) Write a detailed note on environmental factors and disease incidents.

(iv) Describe and discuss insect pest of exotic vs. indigenous tree species of economic value.

----x----