Total Pages : 8

H-6645

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

BOTANY

(Agricultural Ecology : Principles and Applications)

Time Allowed : Three Hours

Maximum Marks : 70

Minimum Passing Marks : 28

Note : Question paper is divided into **four** sections. Attempt questions of all four sections as per direction. Distribution of marks is given in each section.

SECTION-A

(Objective Type Questions)

1. Attempt **any ten** questions. Each question carries **1** mark. [10×1=10]

(A) Fill in the blanks :

(i) Munsell color system is used to determine ____.

(ii) Urea is a _____.

(iii) The manure also considered as bio-fertilizer is _____.

(iv) The First International Agro Biodiversity Congress led to the adoption of _____.

(v) In India____ state is the largest producer of Chilli.

(vi) ___ colour is associated with the revolution in fertilizers.

(B) Multiple Choice Questions :

(vii) An estate where a cash crop is grown for sale is known as :

(a) Kitchen garden

(b) Horticultural farming

(c) Slash and burn farming

(d) Subsistence farming

(viii) Which irrigation practice leads to maximum water conservation?

(a) Water wheel

(b) Tube-well

(c) Drip irrigation

(d) Sprinkle

(ix) Pusa Kiran is a variety of :

(a) Wheat

(b) Pulses

(c) Cotton

(d) Rice

(x) Which is not an element of sustainable agriculture?

(a) Agroforestry

(b) Crop rotation

(c) Permaculture

(d) Permanent use of pesticides in farming

(xi) Which is a cover crop?

(a) Maize

(b) Cowpea

(c) Redgram

(d) All of the above

(xii) Which soil type is having highest phosphorus fixing capacity?

(a) Red Soil

(b) Alluvial Soil

(c) Black Soil

(d) Laterite Soil

SECTION-B

(Very Short Answer Type Questions)

Note: Attempt **any five** questions. Each question carries **02** marks. (Word limit **25-30** words) [5×2=10]

2. (i) Soil air

(ii) Micronutrients

(iii) Plant nematodes

(iv) Pesticides

(v) Soil profile

(vi) Humus

(vii) Dry-land agriculture

SECTION-C

(Short Answer Type Questions)

Note: Attempt **any five** questions. Each question carries **04** marks. (Word limit **250** words) [5×4=20]

3. (i) Beneficial soil organisms

(ii) Plant competition

(iii) Mulches

(iv) Bt-cotton

(v) Soil conservation

(vi) Green manure

(vii) Cropping system

SECTION-D

(Essay Type Questions)

Note: Attempt **any three** questions. Each question carries **10** marks. (Word limit more than **500** words) [3×10=30]

4. (i) Give an account on plant succession and competition.

(ii) Describe the distribution and sampling of agricultural pests.

(iii) Describe the host-plant resistance and conservation of genetic resources.

(iv) Describe the impact of Genetically modified organisms on crop biodiversity.

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