BRAINWARE UNIVERSITY

Term End Examination 2023-2024
Programme – B.Sc.(Ag)-Hons-2021
Course Name – Protected Cultivation and Secondary Agriculture
Course Code - CC-BAG672 (T)
(Semester VI)

Full Marks : 50 **Time : 2:0 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A
(Multiple Choice Type Question) 1 x 20=20

1. *Choose the correct alternative from the following :*

(i) Show the correct option related with the lean-to green house.

a) No roof slope. b) 3 roof slopes.
c) Only one roof slopes. d) Many roof slopes.

(ii) Relate among these which is not a component of protected cultivation.

a) Drip irrigation. b) Shade net.
c) Low tunnel. d) None of these.

(iii) Choose the actual full name of CEA from the given options below.

a) Controlling Environmental Aspects. b) Controlled Environment Agriculture.
c) Controlling Environment Approach. d) None of these.

(iv) Select the suitable night temperature (in degree Celsius) of cool green house.

a) 5 – 7 b) 10 – 12
c) 12 – 18 d) 7 – 10

(v) Choose the suitable plant(s) among these which can be grown successfully under cool green house.

a) Carnations. b) Geraniums.
c) Sweet peas. d) All of these

(vi) Select the suitable night time temperature (in degree Celsius) of warm green house.

a) 8 – 12 b) 10 – 13.
c) 15 – 20. d) None of these.

(vii) Choose the suitable plant(s) from the given options below which is grown under warm green house.

a) Daffodils. b) Tulip.
c) African violets. d) Narcissi.

(viii) Greenhouse cultivation is very important for off season production. Choose the type of naturally ventilated greenhouse.

a) Tubular structure. b) Wooden structure.

c) Bamboo structure. d) All of these.

(ix) Choose the direct use of plastic tunnels from the given options.

a) Plant propagation. b) Raising nursery.
c) Vegetable production. d) None of these.

(x) Relate the suitable areas from the given options below where shade houses are particularly very useful.

a) Humid areas. b) Dry areas.
c) Cool areas. d) All of these.

(xi) Show the suitable areas from these where green houses are particularly very useful.

a) Humid and dry area. b) Humid and cool area.
c) Cool area. d) Dry and cool area.

(xii) Select which one of the followings is the most inexpensive covering material for protected cultivation?

a) Polythene. b) Polyesters.
c) PVC film. d) Fiber glass.

(xiii) Choose which one of the following is a long-lasting covering material than others?

a) Polythene. b) Polyesters.
c) PVC film. d) Fiber glass.

(xiv) Choose which one of these is the simplest form of protected cultivation?

a) Green house. b) Hotbed.
c) Propagation chamber. d) Nursery bed.

(xv) Glass house is one of the hardy protected structures that can be made. Show the actual light transmission percentage in glass house.

a) 77% b) 62%
c) 50% d) 90%

(xvi) Relate which one the followings is the second mode of heat loss?

a) Radiation. b) Conduction.
c) Transmission. d) Air infiltration.

(xvii) Relate the suitable greenhouse structure from the followings which offers the highest light transmission.

a) Quonset. b) Gable.
c) Hoop house. d) Lean-to.

(xviii) Relate the suitable strategy from the below which is often employed to optimize space utilization in a low-cost greenhouse.

a) Vertical gardening. b) Wide spacing between plants.
c) large pathways for easy access. d) Single-crop cultivation.

(xix) Show the actual full name of CEA from the given options below.

a) Controlling Environmental Aspects. b) Controlled Environment Agriculture.
c) Controlling Environment Approach. d) None of these.

(xx) Choose the function of protected structure which protect the plants.

a) Against only biotic stress. b) Against only abiotic stress.
c) Against both biotic and abiotic stress. d) Against water stress.

Group-B

(Short Answer Type Questions) 2.5 x 10=25

2. Illustrate briefly about the rigid panel greenhouses. (2.5)
3. Demonstrate briefly about the convection technique in green house. (2.5)
4. Construct a short note on natural ventilation in green house. (2.5)
5. Develop a brief note on radiation which is utilised in green house conditions. (2.5)
6. Construct a short note on conduction process of green house heating. (2.5)

7. Demonstrate the advantages and disadvantages of Lean to type greenhouse. (2.5)
8. Discuss briefly about the temperature differential inside vs outside of a passive solar greenhouse. (2.5)
9. Discuss in short the heating process of passive solar greenhouse. (2.5)
10. Elaborate the thermal mass which contribute to the efficiency of a passive solar greenhouse. (2.5)
11. Elaborate briefly about the irrigation system in greenhouse condition. (2.5)

OR

Discuss about the overhead irrigation systems which is used in protected cultivation. (2.5)

Group-C

(Long Answer Type Questions) 5 x 1=5

12. Explain the scope of protected cultivation. (5)

OR

Explain in details about the different types of greenhouses. (5)

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