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Question Paper Code: 99A07

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2022

Elective

Agricultural Engineering

19UAG907 - DESIGN AND CONSTRUCTION OF GREEN HOUSE

(Regulations 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Which green house classification based on covering material _____ CO1- U
(a) Lean to type (b) Glass glazing green house
(c) Active cooling green house (d) None of the above
2. Carbon di oxide gas percentage inside green house is CO1- U
(a) 150% (b) 65% (c) 70% (d) 80%
3. Global and diffuse solar radiation can be measured by..... CO2- U
(a) pyranometer (b) pyradiometer (c) pyrgeometer (d) pyrheliometer
4. The time from sunshine to sunset is termed as _____ CO2- U
(a) slope (b) day length (c) local solar time (d) solar intensity
5. Angle made by plane surface with horizontal is called _____ CO3- U
(a) slope (b) azimuth angle (c) altitude angle (d) hour angle
6. Suitable crop for drip irrigation are CO3- U
(a) sorghum (b) horizontal crops (c) row crops (d) oil crops
7. Operating pressure of drip system varies from..... Kg/cm² CO4- U
(a) 1.25 to 1.5 (b) 1 to 1.5 (c) 1 to 1.25 (d) 0.5 to 1.5
8. In which of the following irrigation methods, the deep percolation loss in zero CO4- U
(a) drip irrigation (b) sub irrigation (c) sub surface irrigation (d) sprinkler irrigation

9. The scattered solar radiation is called as CO5- U
 (a) direct radiation (b) diffused radiation (c) beam radiation (d) infrared radiation
10. In which of the following is direct from of renewable energy CO3 -U
 (a) solar energy (b) tidal energy (c) geothermal energy (d) bio energy

PART – B (5 x 2= 10Marks)

11. What are the Factor affecting the greenhouse? CO1- U
12. List out the greenhouse structural components. CO2- U
13. Explain the zenith angle and visible horizon angle. CO3- U
14. Explain the advantage and disadvantage of micro irrigation systems. CO4- U
15. Explain the maintenance of surface drainage system. CO5- U

PART – C (5 x 16= 80Marks)

16. (a) Explain in detail about the types of greenhouses and shape with neat sketches. CO1- U (16)
 Or
 (b) Explain in detail about the scope and importance of greenhouse and list out the advantages and disadvantages. CO1- U (16)
17. (a) Explain in detail about the site selection of the greenhouse. Explain its advantage and disadvantages. CO2 -U (16)
 Or
 (b) Explain the details about the greenhouse covering materials .Explain its advantage and disadvantages. CO2 -U (16)
18. (a) Explain the details about the inside and outside greenhouse radiation. CO3- U (16)
 Or
 (b) Explain the details about the thermal analysis of greenhouse. CO3- U (16)
19. (a) Explain the details about the components of micro irrigation system. CO2- App (16)
 Or
 (b) Explain the details about the classification and Components of Sprinkler Systems . CO3 -App (16)
20. (a) Explain the details about the materials for Pipe drainage systems. CO3 -App (16)
 Or
 (b) Explain the details about the subsurface drainage systems. CO2- App (16)

