

M.Sc.(Ag.) Semester – III Examination, 2014

Agronomy

Course : AGR – 505

(Agrometeorology and Crop Weather Forecasting)

Time: 3 Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer **any five** questions.

1. (a) What is atmosphere? Write down the composition of atmosphere.
(b) Define weather hazard. Enlist different types of weather hazards. Write down different strategies to mitigate agricultural drought. (1+1)+(1+2+5)=10
2. (a) What do you mean by weather forecasting? Enlist different types of weather forecasting with time span. Write down the accuracy and significance of each type of weather forecasting.
(b) Write down the different forms of environmental moisture with example. (1+2+5)+2=10
3. (a) What do you mean by monsoon? Enlist the type of monsoon occurs in India. Write down the importance of each type of monsoon in Indian agriculture.
(b) Write down the effects of soil temperature on plant growth and development. (1+1+5)+3=10
4. (a) Define precipitation. Enlist different forms of precipitation. Briefly describe about the different types of rain formation mechanism.
(b) Discuss about the significance of studying Agrometeorology. (1+2+5)+2=10
5. (a) Define remote sensing. Write down the principles of remote sensing. Describe the important application of remote sensing in agriculture.
(b) Write down in brief about the effect of atmospheric pollution on crop. (1+2+4)+3=10
6. What do you mean by global warming? Write down the effect by global warming in agriculture. Briefly describe about low and high temperature injury in crop. 1+3+6=10
7. (a) Define evapotranspiration. Describe the factors responsible for evapotranspiration.
(b) How do you modify the plant environment? Mention the strategies to protect the plant from cold. (1+3+1)+(2.5+2.5)=10
8. Write short notes on (**any five**): 2×5=10
 - (a) Growing Degree Days

P.T.O.

(2)

- (b) Heat trapping
 - (c) Heat shading
 - (d) Temperature inversion
 - (e) Weather and climate
 - (f) Long day and short day plant
 - (g) Solar constant
 - (h) Atmospheric pressure
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