

M.Sc. (Ag.) Examination, 2019
Semester-II
Agronomy
Course : AGR-517
Crop Ecology and Geography

Time : 3 Hours

Full Marks : 80

Questions are of value as indicated in the margin.

Answer **any five** questions.

1. What do you mean by ecology and crop ecology? Write briefly about principles of ecology. Why diversity is important in ecosystem?. 4+8+4=16
 2. Write short note on climax. Narrate briefly the adaptation of crop to high and low temperature stress. What is growing degree days (GDD)? 3+3+8+2=16
 3. Discuss about the principles of crop distribution. Write down briefly about rainfall and crop distribution. What do you mean by food web? 9+4+3=16
 4. Write down the effect of global climate change in agriculture. Nature briefly about 'vertical' air temperature distribution. 8+8=16
 5. Define an eco-system. What are the main components of an ecosystem? Write briefly about eco-system structure. 2+4+10=16
 6. Write briefly about **any four** of the following : 4×4=16
 - a) Inter specific competition
 - b) Effect of climate change on photosynthesis
 - c) Food chains in eco-system
 - d) Crop adaptation under deficit moisture
 - e) Air pollution
 - f) Crop adaptation under saline soil
 7. What is solar energy? How crop production is influenced by solar radiation? What are the reasons for inefficient utilization of radiation by crops? 3+10+3=16
 8. Discuss briefly about different agro-climatic and socio-economic factors that determines crop distribution. What is the impact of short duration HYVs and hybrids on shift in agro-ecosystems? 6+6+4=16
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