

M.Sc. (Ag.) Semester-II Examination 2017

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 solar energy? How crop production is influenced by solar radiation and moisture? 3+13=16
 2. Write short notes on cardinal temperature and thermoperiodic response. Narrate briefly about the effects of high and low temperature stress in crop production. What do you mean by growing degree days (GDD)? 3+3+8+2=16
 3. Enlist the different agro-climatic zones of India. Discuss in details about the features, problems, prospects of any two agro-climatic zones of India. 4+6+6=16
 4. Mention the principles of plant distribution. What are the theories of crop adaptation and distribution? Write briefly about the factors governing crop distribution. 3+6+7=16
 5. Why crop ecology is considered as an integral part of crop production? Write in short about agro-ecosystem and its qualities. Narrate briefly the principles of ecology and importance of diversity in agro ecosystems. 4+4+4+4=16
 6. Define ecology and eco-system. Mention different kinds of eco-systems. State the function of ecosystems. Write briefly about biotic components in eco-system. 4+2+4+6=16
 7. Write short notes on (**any four**) : 4×4=16
 - (a) Food chains in eco-system
 - (b) Climax
 - (c) Effect of CO₂ on crop production
 - (d) Role of photosynthesis in climate change mitigation
 - (e) Green house gas
 - (f) Asymmetric competition
 8. Define pollution and pollutant. Enlist major forms of pollution along with the particular contaminant relevant to each other. Narrate briefly about the ill effects of water pollution on environment. 4+6+6=16
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