M.Sc. (Ag.) Examination, 2018
Semester-II
Agronomy
Course- AGR-517
(Crop Ecology and Geography)

Time: Three Hours **Full Mark: 80**

Questions are of value as indicated in the margin

Answer ***any five*** questions

1. (a) What are the different types of pollution? Discus in details about the measures that should be taken to reduce water pollution.
   (b) What is competition? What are the components for which competition occurs? Explain the effect of plant population on competition? (3+5)+(2+2+4)=16
2. Write down the principles of plant distribution. Write down the factors affecting crop distribution. How do rainfall and temperature influence the distribution of crops in particular areas. 5+3+4+4=16
3. Define crop adaptation. Write down the importance of crop adaptation. Write down the adaptive feature of crops under low temperature, deficit moisture and excessive moisture conditions. 2+2+4+4+4=16
4. (a) Define agro-climatic zones. How does it differ from agro-ecological zones? Enlist the different agro-ecological zones of India. Discuss in details about any two agro-ecological zones with special emphasis on the characteristics and constraints of that zone.
   (b) What do you mean by environmental manipulation through agronomic practices? Give examples. 2+2+3+5+4=16
5. Write down the principles of ecology. Briefly discuss about the physiological response of crop plants to high temperature, low temperature and solar radiation. 4+4+4+4=16
6. Briefly discuss about vertical distribution of temperature. Write down the effect of global climate change on crop production. 8+8=16
7. Explain the followings (***any four***) 4×4=16
   (a) Ozone hole
   (b) Sound pollution
   (c) Effect of air pollution on human being
   (d) Impact of short duration HYVs and hybrids on shift in agro-ecosystems
   (e) Environmental management system
   (f) Types of consumers with suitable examples
8. Write short notes on (***any four***) 4×4=16
   (a) Food wave
   (b) Succession
   (c) Climax
   (d) Food chain
   (e) Components of ecosystems
   (f) Characteristics of ecosystem

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