

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

Agronomy

Course : AGR – 515

(Dryland farming and Watershed Management)

Time: 3 Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer **any five** questions.

1. Write about the rainfall variability in dryland areas. How does the temperature affect crop production in dryland farming areas? 6+4=10
2. What do you understand by crop planning under aberrant weather condition? Enumerate crop planning in relation to crop, variety and cropping systems. 3+7=10
3. (a) Define dryland farming. Discuss about the various constraints in dryland farming.
(b) Define mulching. Write down the importance of mulching in crop production under dryland farming. (1+5)+(1+3)=10
4. What do you mean by soil compaction? Write down the causes of soil compaction. Write down in brief about precipitation collection and moisture utilization strategies under dryland farming. 1+2+7=10
5. (a) What do you mean by conservation tillage? Write down the benefits of conservation agriculture.
(b) Define anti-transpirants. Classify the different types of anti-transpirants and their mechanisms of action. (2+3)+(1+4)=10
6. What is watershed? Briefly discuss different components of watershed management programme. 2+8=10
7. Define drought. Enumerate different classes of drought. 2+8=10
8. Write short notes on (**any five**): 2×5=10
 - (a) Foliar application
 - (b) Mid-season correction
 - (c) Drought avoidance
 - (d) Dehydration tolerance
 - (e) Benefits of watershed management
 - (f) Plastic mulching
 - (g) Side dressing of fertilizer
 - (h) Run-off control in dryland areas