

KERALA AGRICULTURAL UNIVERSITY
B.Sc.(Hons.) Agriculture – 2010 Admission - 1st Semester
Final Examination – March/April 2011

Cat. No. : Agro 1102
Title : Principles of Agronomy (1+1)

Max. marks: 80
Time : 3 hours

I. Answer the following

20X0.5=10

A. Fill up the blanks

- 1) _____ require more than two years to complete their life cycle.
- 2) Growth is an irreversible increase in _____
- 3) _____ is a physical condition of the soil resulting from tillage.
- 4) Cereals belong to family _____
- 5) _____ crop helps in the nourishment of other crops.
- 6) _____ fertilizers contain only one plant nutrient.
- 7) Nitrogen content of urea is _____
- 8) _____ is a biofertilizer suitable for rice.
- 9) Agronomy is derived from Greek words _____
- 10) _____ is a wetland implement.

B. Match the following

- | | |
|---------------|----------------|
| 1) Catch crop | a. Tapioca |
| 2) Cole crop | b. Cowpea |
| 3) Root crop | c. Cabbage |
| 4) Cereals | d. Leguminosae |
| 5) Pulses | e. Poaceae |

C. State True or False

- 1) An important objective of tillage is weed control.
- 2) FYM is a concentrated organic manure.
- 3) Rhizobium is a biofertilizer recommended for cereal crops.
- 4) Application of fertilizer in split doses reduces the crop growth.
- 5) Transplanting is commonly practiced in pulses.

II. Define the following

10x1=10

- 1) Tillage
- 2) Tilt
- 3) Azospirillum
- 4) Band placement
- 5) Basal dose
- 6) Seed
- 7) Chisel
- 8) Complex fertilizers
- 9) Dibbler
- 10) Drill

III. Answer the following questions in brief (ANY TEN)

10X2=20

- 1) Give the characteristics of good tillth
- 2) What is puddling?
- 3) Give an example of a crop propagated through setts, slips, tuber and rhizome?
- 4) What are the advantages of green manuring?
- 5) List the factors affecting plant growth.
- 6) Give an example each for the narcotics, spices, oilseed and sugar crops.
- 7) What are the types of tillage implements?
- 8) Classify crops based on intensity of cultivation?
- 9) How bullock power is transferred to plough?
- 10) Write the uses of blade harrow .
- 11) List different methods of crop establishment with an example?
- 12) What strategies may be followed to reduce volatilization of nitrogen?

IV. Write short essays on ANY FOUR of the following

4x5=20

- 1) Write the advantages and disadvantages of foliar method of application of fertilizers.
- 2) What is seed? Give important characteristics of good seed?
- 3) What are the forms of different nutrient elements used by plants?
- 4) What is biological nitrogen fixation? Write the mechanism of its fixation?
- 5) What is the influence of tillage on soil physical properties?
- 6) Mention the principle involved in puddling and also write the steps involved in puddling?

V. Write essays on ANY TWO

2X10=20

- 1) Plant population and yield .
- 2) Integrated nutrient management.
- 3) Agronomy- definition, its scope and relationship with other sciences.