

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

Agronomy

Course : AGR – 510

(Agronomy of Fibre, Sugar and Tuber crops)

Time: 3 Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer **any five** questions.

1. (a) Potato is a major food crop in Indian Agriculture – Justify
(b) Discuss the modern production technology of potato with reference to
 - (i) Potato growing seasons
 - (ii) Seed treatment
 - (iii) Manures and fertilizer management
 - (iv) Water management

3+(1+2+2+2)=10
2. (a) Discuss the modern production technology of jute with reference to
 - (i) Sowing parameters
 - (ii) Manures and fertilizers
 - (iii) Thinning and weeding
 - (iv) Selection of jute varieties

(b) Mention the different factors which affect the quality of jute fibre.

(2+2+2+1)+3=10
3. Write down different seasons of sugarcane planting. Describe in brief about seed rate, spacing, seed treatment, quantity and time of fertilizer application and time of harvesting in sugarcane.

2+(1+1+2+2+2)=10
4. Differentiate between (**any five**) of the following:

2×5=10

 - (i) Sett roots and shoot roots
 - (ii) *Saccharum officinarum* and *Saccharum spontaneum*
 - (iii) High sugar recovery zone and low sugar recovery zone
 - (iv) Ridge and furrow method vs Trench method of cane planting
 - (v) Hot water treatment and chemical treatment for higher sett germination
 - (vi) Trash mulch and soil mulch
 - (vii) *Corchorus capsularis* and *Corchorus olitorius*

P.T.O.

5. Write short notes on: (*any five*)

5×2=10

- (i) Artificial ripening
- (ii) Seed plot technique of potato
- (iii) Ratooning in sugarcane
- (iv) Late blight of potato
- (v) Maturity symptoms in sugarcane
- (vi) Stolonisation and tuberisation of potato
- (vii) True potato seed (TPS)

6. (a) Write down the improved agronomic practices in cotton with relation to sowing parameters, water management and nutrient management.

(b) Classify cotton sp.

(c) Enlist the different quality parameters of cotton fibre. (2+2+2)+2+2=10

7. (a) Write down the suitable soil and climate for mesta cultivation. Give a brief account on the importance of mesta.

(b) Write in brief about planting method of sisal

(c) Write down the improved agronomic practices in sunhemp with relation to sowing parameters and nutrient management. (2+2)+2+(2+2)=10

8. Write short notes on (*any five*):

2×5=10

- (i) Ginning percentage of cotton
 - (ii) Bt Cotton
 - (iii) Branching pattern in cotton
 - (iv) Boll shedding in cotton
 - (v) Ribbon retting in jute
 - (vi) Earthing up of potato
 - (vii) Organic cotton
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