

B.Sc. (Ag.) Honours Semester-IV Examination, 2017
Course No.: AGR-221 Field Crops-II (Rabi)

Signature of Centre Superintendent

Roll No.: (in figure) _____ (in words) _____

Student Index No. _____ Regn. No. _____ of _____

Time: Two Hours

Full Marks: 40

Questions are of value as indicated in the margin

Part-I
(Objective and Short Answer Type)
(Use only ball point pen)

Time: 20 minutes

Full Marks: 10

Note: 1. Answer in question paper itself.

2. Striking, rewriting or overwriting are not allowed in the objective type questions.

1. State True (T) or False (F) in respect of the following statements:

4×0.5=2

- i) Wheat is sown earlier in NWPZ than Peninsular zone.
- ii) De-suckering is practiced in sugarcane
- iii) Chicory is an associated weed in Lucerne
- iv) First cutting of green fodder in berseem is taken at 30 DAS

2. Fill in the blanks with appropriate words:

0.5×8=4

- i) Specific *Rhizobium* culture of berseem is _____.
- ii) The stage when panicle is inside the leaf sheath is called _____ stage.
- iii) CRI stage appears in wheat at _____ DAS.
- iv) Method of planting in sugarcane practiced for water saving is called _____
- v) Seed production of legumes is enhanced by the use of _____ and _____ micronutrients.
- vi) Ratan (BIOL 212) is a variety of _____ crop.
- vii) Growth habit of pulses is of _____ type.
- viii) Pungency occurs in rapeseed-mustard due to presence of _____.

3. Tick the correct answers:

0.5×8=4

- i) Stubble height is maintained in oats at 5 cm / 10 cm / 20 cm
- ii) Companion cropping is practiced in rice / sugarcane / barley
- iii) Sinigrin is present in sesame / sunflower / mustard
- iv) Lean period of fodder occurs during Jan-Feb / March-April / May-June
- v) TPS is used for potato cultivation @ 150g / 500g / 1000 g/ha
- vi) Ray florets are found in tobacco / potato / sunflower
- vii) *Paira* crop is sown before harvest of main crop / after harvest of main crop / none
- viii) Rabbing is done in sugarcane / tobacco / potato

B.Sc. (Ag.) Honours Examination, 2017

Semester-IV

Course No.: AGR-221

Field Crops-II (Rabi)

Part - II

(Descriptive Type)

Time: 100 Minutes

Full Marks: 30

Questions are of value as indicated in the margin.

Answer any three questions from the following

4. a) Describe the characteristics of high yielding dwarf wheat varieties. Explain briefly about the cultivation techniques of normal sown irrigated wheat with reference to time of sowing and seed rate, spacing and rate and time of fertilizer application.
b) What are the advantages of seed inoculation in pulses? State in brief about sowing time, irrigation schedule and fertilizer management in chickpea. (2+3)+(2+3)=10
 5. a) Write down briefly the improved technology of barley cultivation with reference to seed rate and spacing, irrigation schedule, fertilizer management and time of harvest. Mention two popular varieties of barley.
b) Plan a schedule of irrigation for critical growth stages of rapeseed and mustard. Write down the optimum time of sowing and fertilizer management in rapeseed cultivation. Name two varieties each of sunflower and safflower. (4+1)+(2+2+1)=10
 6. a) Write down various species of sugarcane. Explain improved techniques of sugarcane cultivation with reference to method of planting and rate and time of fertilizer application.
b) Write down the reasons for toxicity development in fodder oats. Mention the green fodder harvesting schedule of berseem. State the sowing time and cutting schedule of multicut oats fodder. (2+3)+(2+1+2)=10
 7. a) Mention various growth stages of potato. Write down the date of planting of potato in various agro-climatic zones, irrigation schedule and dose and time of fertilizer application in potato crop.
b) Discuss about the two different species of tobacco. Write down the planting and harvesting methods of tobacco. State various curing processes in tobacco. (1+4)+(1+2+2)=10
 8. a) Write down short notes on **any three** of the following:
(i) Neuro-toxin in lathyrus (ii) TPS (iii) Sulphur in oilseed cultivation
(iv) Toxicity in berseem; (v) Utera cropping
b) Differentiate between **any two** of the following:
(i) Rape seed and mustard (ii) Zero tillage sowing and conventional sowing of wheat (iii) Ratoon sugarcane and main crop of sugarcane (iv) Garden pea and field pea. (3×2)+(2×2)=10
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