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AR-2017

B.Sc (AG)

4th SEMESTER REGULAR EXAMINATION-NOV-2019

AG-245

Crop Production Technology-II (Rabi crops)

Time : 2 Hours

Maximum : 50 Marks

(Answer all questions of Section – A)

SECTION – A

Q.1 Fill up the Blanks with suitable and meaningful word(s): [10 x 0.5 = 5]

- a The scientific name of common bread wheat is _____
- b The most critical stages of irrigation in chickpea are _____ and _____
- c The planting material of sugarcane is _____
- d The ideal temperature for germination of pea is _____
- e Canola type rapeseed-mustard oil contains _____% erusic acid.
- f Zinc deficiency in potato causes _____
- g _____ is a problematic weed of berseem.
- h _____ is known as “queen of fodder crops”.
- i The sour taste of chickpea leaves is due to the presence of _____
- j The anti-nutritional factor in sunflower is _____.

Q.2. Define or Explain the following in one or two sentences [5 × 1 = 5]

- a) Crown root initiation stage
- b) Carthamine
- c) Sinigrin
- d) True potato seed
- e) Stubble shaving operation

Q.3. Match the following [10 x 0.5 = 5]

- | | |
|---------------------|----------------------|
| a) Nipping | 1) 10% salt solution |
| b) Brix value | 2) Hot air) |
| c) Chichory seed | 3) Bharatpur |
| d) Durum wheat | 4) Oat |
| e) Rapeseed-mustard | 5) Chickpea |
| f) Siliqua | 6) Sugarcane |
| g) Hull-less barley | 7) Heat tolerant |
| h) Red rot disease | 8) Naked type |
| i) Kent | 9) Mustard |
| j) Emmer wheat | 10) Central India) |



Q.4. Write TRUE or FALSE against the following statements

[10 × 0.5 = 5].

- a) The most critical stage for moisture stress in wheat is milking stage. _____
- b) Barley can tolerate alkali soil condition. _____
- c) Potato tuber is a modified root. _____
- d) 2,4-D is used to control Phalaris minor. _____
- e) Berseem is rich in protein and low in carbohydrates. _____
- f) The duration of Adjali sugarcane crop is 12 months. _____
- g) Rhizobium strain required for seed inoculation of berseem is Rhizobium meliloti. _____
- h) Thinning in rapeseed-mustard is done at 15-20 days after sowing. _____
- i) The unsaturated fatty acid linoleic acid content in sunflower is 50-60%. _____.
- j) Sugarcane Breeding Institute is located at Lucknow. _____

SECTION – B: (Short Answer Questions)

(Attempt any five questions. Each question carries equal marks)

[5 x 6 =30]

- Q.5 What are the major constraints in *rabi* pulse production in Odisha? Write down the strategies to increase *rabi* pulse production in rice-fallows.
- Q.6 Write down the different *Brassica* species cultivated in our country and differentiate between *toria* and mustard.
- Q.7 Briefly explain the nutrient, water and weed management in wheat crop.
- Q.8 Write down the major constraints in linseed production under *utera* cropping. Discuss the nutrient management practices for higher productivity of linseed under *utera* cropping.
- Q.9 Briefly explain the principles that govern sustainable sugarcane initiative method? Differentiate between conventional and SSI method of planting?
- Q.10 Write down the importance of fodder in Indian Agriculture. Briefly describe the soil, climate and fertilizer requirement of oats.

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