

# Faculty of Agriculture

## End Semester Examination May 2025

### AG3CO25 Crop Production Technology -II (Rabi- Crops)

<b>Programme</b>	:	B. Sc. (Hons.)	<b>Branch/Specialisation</b>	:	AG
<b>Duration</b>	:	3 hours	<b>Maximum Marks</b>	:	50

**Note:** All questions are compulsory. Internal choices, if any, are indicated. Assume suitable data if necessary.  
 Notations and symbols have their usual meaning.

#### Section 1 (Answer all question(s))

- |   | <b>Marks CO BL</b>  |
|---|---|
| <b>Q1.</b> What is a common method of sowing for both wheat and barley?                                       | 1    1    1   |
| <input type="radio"/> Transplanting<br><input type="radio"/> Dibbling   | <input checked="" type="radio"/> Broadcasting<br><input type="radio"/> Ridge and furrow |
| <b>Q2.</b> Which of the following is a common high-yielding variety of wheat in India?                        | 1    1    1   |
| <input type="radio"/> IR-8<br><input checked="" type="radio"/> HD 2967  | <input type="radio"/> Jaya<br><input type="radio"/> Basmati                             |
| <b>Q3.</b> Which of the following countries is the largest producer of lentils globally?                      | 1    2    1   |
| <input type="radio"/> India<br><input checked="" type="radio"/> Canada  | <input type="radio"/> Australia<br><input type="radio"/> United States                  |
| <b>Q4.</b> Which one of the following is a popular early-maturing variety of peas?                            | 1    2    1   |
| <input type="radio"/> JG 11<br><input checked="" type="radio"/> Arkel   | <input type="radio"/> IPL 321<br><input type="radio"/> Malavika Matar-1                 |
| <b>Q5.</b> The primary centre of origin of rapeseed and mustard is considered to be _____.                    | 1    3    1   |
| <input type="radio"/> South America<br><input checked="" type="radio"/> Mediterranean region and Central Asia | <input type="radio"/> Africa<br><input type="radio"/> Southeast Asia                    |
| <b>Q6.</b> Sugarcane is believed to have been originated in _____.  | 1    3    1   |
| <input type="radio"/> South America<br><input type="radio"/> Africa   | <input checked="" type="radio"/> India and New Guinea<br><input type="radio"/> Europe   |
| <b>Q7.</b> Lemongrass oil is economically important for its use in _____.                                     | 1    4    1   |
| <input type="radio"/> Food coloring<br><input checked="" type="radio"/> Perfumery and insect repellents       | <input type="radio"/> Textile industry<br><input type="radio"/> Fertilizer production   |
| <b>Q8.</b> Which of the following is a popular variety of Berseem?  | 1    5    1   |
| <input checked="" type="radio"/> Pusa Giant<br><input type="radio"/> African Tall                             | <input type="radio"/> Co-1<br><input type="radio"/> Jawahar Chari                       |
| <b>Q9.</b> Which of the following forage crops is known for its high protein content?                         | 1    5    1   |
| <input type="radio"/> Oat<br><input checked="" type="radio"/> Lucerne   | <input type="radio"/> Berseem<br><input type="radio"/> Sorghum                          |
| <b>Q10.</b> Which Rabi pulse crop is known for its nitrogen-fixing ability and high protein content?          | 1    5    1   |
| <input type="radio"/> Mustard<br><input type="radio"/> Lentil   | <input checked="" type="radio"/> Gram (Chickpea)<br><input type="radio"/> Linseed       |

#### Section 2 (Answer all question(s))

**Marks CO BL**

**Q11.** Write the pre-sowing preparations required for the wheat crop.

1 1 2

Rubric	Marks
Pre-sowing preparation of wheat crop.	1

**Q12.** Describe the recommended application of major nutrients (NPK) and the role of organic fertilizers for Wheat crop. 2 1 2

Rubric	Marks
Application of major nutrients (NPK) for Wheat crop.	1
Role of organic fertilizers for Wheat crops.	1

**Q13. (a)** Describe the ideal soil types and their characteristics and irrigation management, suitable varieties for optimal growth, and yield of barley crops. 5 1 2

Rubric	Marks
Ideal soil types and their characteristics for the growth and yield of barley crops.	2.5
Irrigation management, suitable varieties for optimal growth and yield of barley crops.	2.5

**(OR)**

**(b)** Describe the ideal soil types and their characteristics and irrigation management, suitable varieties for optimal growth, and yield of Wheat crops.

Rubric	Marks
ideal soil types and their characteristics for growth, and yield of wheat crops.	2.5
ideal irrigation management, suitable varieties for optimal growth, and yield of Wheat crops.	2.5

### Section 3 (Answer all question(s))

**Q14.** Write the scientific name, family, and two hybrid variety names of pea.

Marks CO BL

1 2 2

Rubric	Marks
The scientific name, family.	0.5
2 hybrid variety names of pea.	0.5

**Q15.** Write the geographical distribution and suitable climatic conditions of the lentil crop.

3 2 2

Rubric	Marks
Geographical distribution	1.5
Suitable climatic conditions.	1.5

**Q16. (a)** Write the cultural practices and economic importance of Peas.

4 2 1

Rubric	Marks
Cultural practices of Peas.	2
Economic importance of Peas.	2

(OR)

**(b)** Write about chickpea varieties (any 4) and cultural practices performed in crops.

Rubric	Marks
Chickpea varieties (any 4)	2
Chickpea cultural practices performed in crops.	2

#### Section 4 (Answer all question(s))

**Q17.** Describe the economic importance of sugarcane.

Marks CO BL

2 3 2

Rubric	Marks
Economic importance of sugarcane.	2

**Q18. (a)** Describe the ideal soil type, climatic conditions, and cultural practices for the cultivation of both rapeseed and mustard.

6 3 2

Rubric	Marks
Describe the ideal soil types, climatic conditions, and cultural practices for the cultivation of mustard.	3
Describe the ideal soil types, climatic conditions, and cultural practices for the cultivation of rapeseed	3

(OR)

**(b)** Outline the specific soil characteristics and climatic conditions (temperature, sunlight, water requirements) that are most conducive to optimal sunflower growth and oil yield.

Rubric	Marks
Soil characteristics that are most conducive to optimal sunflower growth and oil yield	3
Climatic conditions (temperature, sunlight, water requirements) that are most conducive to optimal sunflower growth and oil yield	3

#### Section 5 (Answer all question(s))

**Q19.** Discuss the economic significance of Lemongrass and Citronella cultivation in India.

Marks CO BL

2 4 1

Rubric	Marks
Economic significance of Lemongrass.	1
The economic significance of Citronella cultivation in India.	1

**Q20.** Give examples to explain aromatic plants.

2 4 1

Rubric	Marks
Examples to explain aromatic plants	2

**Q21. (a)** Write about citronella varieties, economic importance, cultural practices, and soil requirements of this crop.

4 4 2

Rubric	Marks
Citronella varieties, economic importance	2
cultural practices, and soil requirements of Citronella crop.	2

(OR)

- (b)** Outline the essential cultural practices for successful Mentha cultivation, including land preparation, planting methods, irrigation, nutrient management, weed control, and harvesting for maximum oil yield and quality.

Rubric	Marks
Outline the essential cultural practices for successful Mentha cultivation, including land preparation, planting methods,	2
Outline the essential cultural practices for successful Mentha cultivation irrigation, nutrient management, weed control, and harvesting for maximum oil yield and quality.	2

#### Section 6 (Answer any 2 question(s))

Marks CO BL

**Q22.** Write about the botanical name, family, economic importance, varieties, and yield of the berseem crop.

4 5 1

Rubric	Marks
botanical name,	1
family,	1
Economic importance	1
varieties, and yield	1

**Q23.** Write the botanical name, family, economic importance, varieties, and yield of the Lucerne crop.

4 5 1

Rubric	Marks
botanical name,	1
family.,	1
economic importance,	1
varieties, and yield of the crop	1

**Q24.** Write the botanical name, family, economic importance, varieties, and yield of the Oat crop.

4 5 1

Rubric	Marks
Oat, botanical name, family, economic importance, varieties, and yield of the crop.	1
family,	1
economic importance,	1
varieties Yield	1

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