



# Faculty of Agriculture

## End Semester Examination May 2025

### AG3CO30 Principles of Seed Technology

<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))

Marks CO BL

**Q1.** The sudden heritable change is called-

1 1 1

Rubric	Marks
Mutation	1

- ☒ Mutation
 ☐ Variation  
☐ Differentiation
 ☐ Heritability

**Q2.** Scientific name of sunflower is-

1 1 1

Rubric	Marks
<i>Helianthus annuus</i>	1

- ☐ *Arachis hypogaea*
☐ *Glycine max*  
☐ *Oryza sativa*
☒ *Helianthus annuus*

**Q3.** The grow out test is used to determine-

1 2 1

Rubric	Marks
Genetic purity	1

- ☐ Physical purity
 ☒ Genetic purity  
☐ Germination percentage
 ☐ None of these

**Q4.** The tag color of foundation seed is-

1 2 1

Rubric	Marks
White	1

- ☒ White
 ☐ Golden yellow  
☐ Blue
 ☐ Purple

**Q5.** DUSN stands for-

1 3 1

Rubric	Marks
Distinctiveness, Uniformity, Stability, Novelty	1

- ☐ Distinctiveness, Uniformity, Storability, Novelty
 ☒ Distinctiveness, Uniformity, Stability, Novelty  
☐ Differentiation, Uniformity, Stability, Novelty
 ☐ All of the above

Q6. A gene from unrelated organism is known as-

1 3 1

Rubric	Marks
Transgene	1

- ☒ Transgene ☐ Gene  
☐ Pseudogene ☐ Cis-gene

Q7. For cereals in ordinary storage conditions for 12-18 months the seeds should be dried to how much percentage of moisture content?

1 4 1

Rubric	Marks
10-12 %	1

- ☒ 10- 12 % ☐ 14-16 %  
☐ 16-18 % ☐ None of these

Q8. What are the advantages of seed drying?

1 4 1

Rubric	Marks
All of above	1

- ☐ Long term storage of seed ☐ Maintenance of seed quality  
☐ Permit early harvest ☒ All of above

Q9. The full form of WTO is-

1 5 1

Rubric	Marks
World Trade organization	1

- ☐ Whole Trade Organisation ☒ World Trade Organisation  
☐ World Transfer Organiser ☐ Whole Transfer Organiser

Q10. The headquarter of WTO is at-

1 5 1

Rubric	Marks
Geneva	1

- ☐ England ☒ Geneva  
☐ Switzerland ☐ America

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

Marks CO BL  
2 1 1

Q11. Define seed and seed technology.

Rubric	Marks
Define seed	1
Define seed technology	1

Q12. Write a note on maintenance of genetic purity during seed production.

2 1 2

Rubric	Marks
Write a note on maintenance of genetic purity during seed production.	2

**Q13. (a)** What are the causes of deterioration of crop varieties? Also write their control measures.

4 1 2

Rubric	Marks
What are the causes of deterioration of crop varieties. (3 MARKS) Write their control measures. (1 MARK)	4

(OR)

**(b)** Write down the production technology of cereal crops.

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

Marks CO BL

**Q14.** What is breeder seed and its tag color?

1 2 2

Rubric	Marks
What is Breeder seed?	0.5
Tag color of breeder seed.	0.5

**Q15.** Describe in detail seed act 2004.

3 2 2

Rubric	Marks
Describe in detail seed act 2004	3

**Q16. (a)** Explain different classes of seed in detail.

4 2 2

Rubric	Marks
Explain different classes of seed in detail.	4

(OR)

**(b)** Differentiate between breeder seed and certified seed.

### Section 4 (Answer any 2 question(s))

Marks CO BL

**Q17.** What are genetically modified crops? Give suitable examples.

4 3 2

Rubric	Marks
What are Genetically Modified crops? Give suitable examples.	4

**Q18.** What is DUSN testing? What does “N” signifies in DUSN?

4 3 2

Rubric	Marks
What is DUSN testing? What does “N” signify in DUSN.	4

**Q19.** Explain genetically modified tobacco and cotton with suitable example.

4 4 2

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

Marks CO BL

**Q20.** Define seed drying.

1 4 2

Rubric	Marks
Define seed drying.	1

**Q21.** Explain seed storage and its factors associated with degradation of seed quality during storage.

3 4 2

Rubric	Marks
Explain seed storage.	1
Explain factors associated with degradation of seed quality during storage?	2

**Q22. (a)** Describe in detail seed treatment and advantages of seed treatment.

4 4 2

Rubric	Marks
Describe in detail seed treatment. (2 MARKS) Advantages of seed treatment. (2 MARKS)	4

(OR)

(b) Write down about pulse seed processing.

**Section 6 (Answer all question(s))**

Marks CO BL

**Q23.** What is seed marketing?

2 5 2

Rubric	Marks
What is Seed marketing?	2

**Q24.** Write the main features of WTO.

2 5 2

Rubric	Marks
Write the main features of WTO.	2

**Q25. (a)** Write the various factors affecting the seed marketing.

4 5 2

Rubric	Marks
Write the various factors affecting the seed marketing.	2
Write the various factors affecting the seed marketing.	2

(OR)

(b) Write a detailed note on WTO and OECD.

Rubric	Marks
Write a detailed note on WTO.	2
Write a detailed note on OECD.	2

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