

Faculty of Agriculture

End Semester Examination May 2025

AG3CO30 Principles of Seed Technology

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

Q1. The sudden heritable change is called-	Marks
	1 1 1

Rubric	Marks
Mutation	1

- Mutation Variation
 Differentiation Heritability

Q2. Scientific name of sunflower is-	1 1 1
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Rubric	Marks
<i>Helianthus annus</i>	1

- Arachis hypogaea* *Glycine max*
 Oryza sativa *Helianthus annus*

Q3. The grow out test is used to determine-	1 2 1
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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
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Rubric	Marks
White	1

- White Golden yellow
 Blue Purple

Q5. DUSN stands for-	1 3 1
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Rubric	Marks
Distinctiveness, Uniformity, Stability, Novelty	1

- Distinctiveness, Uniformity, Storability, Novelty Distinctiveness, Stability, Novelty, Uniformity
 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))

Q14. What is breeder seed and its tag color?

Marks CO BL
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))

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

Marks CO BL
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))

Q20. Define seed drying.

Marks CO BL
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))

Q23. What is seed marketing?

Marks CO BL
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
