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Enrollment No.....



Faculty of Agriculture
End Sem Examination May-2024

AG3CO30 Principles of Seed Technology

Programme: B.Sc. (Hons.) Branch/Specialisation: Agriculture

Duration: 3 Hrs.

Maximum Marks: 50

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

- Q.1 i. The original or first seed of a variety available with the producing breeder of the crop is called- **1**
(a) Foundation seed (b) Certified seed
(c) Breeder seed (d) Nucleus seed
- ii. Any part of plant used to raise a crop, is known as _____. **1**
(a) Seed (b) Molecular marker
(c) Tissue (d) Seed coat
- iii. Volunteer plants are: **1**
(a) Roug seed (b) Weed seed
(c) Working sample (d) Plants of previous season
- iv. The seed bill enacted in the year _____. **1**
(a) 2001 (b) 2008 (c) 2004 (d) 1988
- v. The test performed to determine the genuineness of seed as to species or variety is called as: **1**
(a) Progeny test (b) Grow out test
(c) Germination test (d) Vigour test
- vi. Which of the following crops has the largest area under transgenic globally? **1**
(a) Mustard (b) Canola (c) Cotton (d) Soybean
- vii. The process of evaluation of seeds in terms of purity and germination is called- **1**
(a) Registration (b) Seed certification
(c) Seed testing (d) Evaluation
- viii. The process of elimination of moisture from the seed is called- **1**
(a) Seed treatment (b) Seed storage
(c) Seed vigour (d) Seed drying

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- ix. National organization involved in seed production is _____. **1**
(a) UPOV (b) NSC (c) ISTA (d) WTO
- x. Which round of trade negotiations led to the establishment of the WTO? **1**
(a) Doha Round (b) Tokyo Round
(c) Uruguay Round (d) Cancún Round

- Q.2 i. Define genetic purity. **1**
ii. What is breeder seed? **2**
iii. Differentiate between seed and grain. **5**
- OR iv. What are the causes of deterioration in seeds? How it is controlled? **5**
- Q.3 i. The National Seed Corporation was established in which year? **1**
ii. Write the role of seed certification agency. **3**
iii. Write short note on seeds (control) order. **4**
- OR iv. Discuss salient features of the seeds act. **4**
- Q.4 i. Define gel electrophoresis. **2**
ii. Describe biochemical test for varietal identification of crops. **6**
- OR iii. Define GM crops. Write in brief about the application of transgenic plants. **6**
- Q.5 i. What do you mean by seed treatment? **2**
ii. Give names of objectionable weeds of following crops: **2**
(a) Wheat (b) Mustard (c) Paddy (d) Berseem
iii. Discuss the importance of seed testing. **4**
- OR iv. Discuss in brief about various steps in seed processing. **4**
- Q.6 Attempt any two: **4**
i. Explain the major components of seed marketing. **4**
ii. Explain sales promotional activities used for seed marketing. **4**
iii. What role does the International Seed Testing Association (ISTA) play in ensuring seed quality and facilitating international seed trade? **4**

P.T.O.

Marking Scheme

Principles of Seed Technology (T) - AG3CO30 (T)

Q.1	i.	The original or first seed of a variety available with the producing breeder of the crop is called d) Nucleus seed	1
	ii.	Any part of plant used to raise a crop, is known as..... a) Seed	1
	iii.	Volunteer plants are: d) Plants of previous season	1
	iv.	The seed bill enacted in the year..... c) 2004	1
	v.	The test performed to determine the genuineness of seed as to species or variety is called as: b) Grow out test	1
	vi.	Which of the following crops has the largest area under transgenic globally? d) Soybean	1
	vii.	The process of evaluation of seeds in terms of purity and germination is called c) Seed testing	1
	viii.	The process of elimination of moisture from the seed is called d) Seed drying	1
	ix.	National organization involved in seed production is b) NSC	1
	x.	Which round of trade negotiations led to the establishment of the WTO? c) Uruguay Round	1
Q.2	i.	Define Genetic Purity. definition = 1 mark	1
	ii.	What is Breeder seed? breeder seed = 2 marks	2
	iii.	Differentiate between seed and grain. 5 differentiation = 5 marks	5

OR	iv.	What are the causes of deterioration in seeds and how it is controlled? causes of deterioration = 3 marks control = 2 marks	5
Q.3	i.	The National Seed Corporation was established in which year? year = 1 mark	1
	ii.	Write the role of Seed Certification Agency. 3 roles = 3 marks	3
	iii.	Write short note on Seeds (Control) Order. short note = 4 marks	4
OR	iv.	Discuss salient features of the Seeds Act. 4 features = 4 marks	4
Q.4	i.	Define gel electrophoresis. definition = 2 marks	2
	ii.	Describe Biochemical test for varietal identification of crops. 3 biochemical test with examples and explanation = 6 marks	6
OR	iii.	Define GM Crops. Write in brief about the application of transgenic plants. definition gm crops = 2 marks Applications = 4 marks	6
Q.5	i.	What do you mean by Seed Treatment? definition = 2 marks	2
	ii.	Give names of objectionable weeds of following crops: 1. Wheat 2. Mustard 3. Paddy 4. Berseem each name = ½ marks	2
	iii.	Discuss the importance of seed testing. 4 major importance = 4 marks	4
OR	iv.	Discuss in brief various steps in seed processing. steps with details = 4 marks	4
Q.6		Attempt any two:	
	i.	Explain major components of seed marketing. major components with detail = 4 marks	4

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- ii. Explain sales promotional activities used for seed marketing. **4**
major promotional media with detail = 4 marks
- iii. What role does the International Seed Testing Association (ISTA) **4**
play in ensuring seed quality and facilitating international seed
trade?
Important roles = 4 marks