

PRIST UNIVERSITY

School of Agriculture

16SST201-Principles and practices of seed production (1+1)

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II B.Sc. [Ag]

QUESTION BANK

PART-A

I. Choose the correct answer

1. Systemized crop production is known as
a) **Seed production** b) Crop production c) Farm production d) Both a & b
2. The benefits of seed production are
a) Higher income b) High quality seed c) Low quality seed **d) Both a & b**
3. Roguing is compulsorily practiced in
a) **Seed production** b) Crop production c) Farm production d) Both a & b
4. Which among the following is belongs to orthodox seed
a) Coffee b) Rubber c) Coconut **d) Rice**
5. Which among the following is belongs to recalcitrant seed
a) Rice b) Sorghum **c) Coconut** d) Wheat
6. The genetic purity of breeder seed should be
a) **100%** b) 99.5% c) 99.0% d) 98.5%
7. The higher physical purity of most of the crop seeds required for certification
a) 100% b) 99.5% c) 99.0% **d) 98.0%**
8. Seed multiplication ratio for rice varieties are
a) 1:100 **b) 1: 80** c) 1: 40 d) 1:400
9. Seed multiplication ratio of blackgram is
a) 1:100 b) 1: 80 **c) 1: 40** d) 1:400
10. A line is also called as
a) **Male sterile line** b) Maintainer line c) Restorer line d) None of them
11. GMS male sterility used for hybrid seed production in
a) Rice **b) Redgarm** c) Cotton d) Tomato
12. B line is also called as
a) Male sterile line **b) Maintainer line** c) Restorer line d) None of them
13. R line is also called as

a) Male sterile line

b) Maintainer line

c) Restorer line

d) None of them

II. Fill in the Blanks

1. Botanically seed is known as ----- & ----- (fertilized & ripened ovule).
2. ----- is Basic seed class for seed production (Nucleus seed).
3. ----- Seed is exempted from certification. (Breeder seed)
4. Genetic purity of seeds tested by ----- test (Grow out test)
5. ----- germination implies that the cotyledons are pushed above ground (Epigeal)
6. B line is also called as ----- (Maintainer line)
7. The female inflorescence of maize is ----- (Cob)
8. Genetic male sterility governed by -----genes (Nuclear)
9. The certified seed lots are affixed with ----- tag (Azure blue)

III. Match the following

1	Seed act	-	Azure blue tag	2
2.	Breeder seed	-	Removal of off type plants	5
3.	Foundation seed	-	Golden yellow tag	4
4.	Certified seed	-	White tag	3
5.	Roguing	-	1966	1

1.	A line	-	Maize	5
2.	B line	-	Peral millet	4
3.	R line	-	Male sterile line	1
4.	Protandry	-	Maintainer line	2
5.	Protogyny	-	Restorer line	3

IV. State True or False

1. Isolation distance is necessary for seed production [T]
2. Skoto dormant seeds are also called Temperature sensitive seeds [F]
3. Seed germinates while still attached to the parent plant is called Viviparous germination [T]
4. The isolation of seed crops is the most important factor in avoiding contamination of the cross-fertilized crops [T]
5. In cross-pollinated crops supplementary pollination is very much essential to increase the seed yield [T]
6. The foundation seed lots are affixed with golden yellow tags [F]
7. No specified tag required for nucleus seed [T]
8. Detassaling is the technique used for hybrid seed production in pearl millet [F]

PART-B

I. Answer any FIVE questions only

[1 mark]

1. Define Seed?
2. Write the importance of seed.
3. What is seed production and write benefits of seed production?
4. Define Germination
5. What is Photo dormancy
6. Define Seed senescence
7. What is orthodox seed?
8. What is recalcitrant seed?

PART-C

I. Answer any FIVE questions only

[2 marks]

1. Define Seed? Write the importance of seed.
2. What are orthodox seed and recalcitrant seed?
3. Differentiate seed production and crop production
4. Differentiate Seed and grain
5. Enumerate the types of germination
6. What is seed dormancy? Write their merits and demerits.
7. What are Seed Multiplication Ratio (SMR) and Seed Replacement Ration (SRR)?
8. Write the significance of quality seed
9. List out classes of seed. Write short notes on Breeder seed
10. Explain how to maintain genetic purity during seed production
11. Briefly explain commercial hybrid seed production techniques for rice.
12. Define male sterility. List out types of male sterility, Explain CGMS.
13. Briefly explain commercial hybrid seed production techniques for maize.

PART-D

I. Answer any THREE questions only

[5 marks]

1. Explain seed structure.
2. Define Germination. Elucidate the different phases of germination.
3. Explain seed quality characters and write significance of quality seed
4. Explain detailed Methods of Hybrid seed production
5. Explain commercial hybrid seed production techniques for rice.
6. Define male sterility. List out types of male sterility, Explain CGMS.
7. Explain commercial hybrid seed production techniques for maize.