

B.Sc. (Honours) Agriculture Semester-IV Examination, 2019**Course No: CPH-221 (Principles of Seed Technology)**

Signature of Centre Superintendent

Roll No. : (in figure) _____ (in words) _____

Student Index No. _____ Regn. No. _____ of _____

Time : Two Hours**Full marks : 50**

Questions are of value as indicated in the margin

Part - I
(Objective and Short Answer Type)
(Use only ball point pen)**Time : 30 minutes****Full marks : 20****Note:** 1. Answer in question paper itself.

2. Striking, rewriting or overwriting are not allowed in the objective type questions.

1. State True (T) or False (F) in respect the following statements :**0.5×14=7.0**

- (a) The genetic purity (%) of breeder seed is 99% ☐
- (b) Male: female ratio for hybrid rice production is 1:2 ☐
- (c) The viable seed which will not germinate under normal environment is called active seed. ☐
- (d) The percent impurity in a seed sample is referred to as dockage. ☐
- (e) Seed rate of Bhindi is 5 to 6 g. ☐
- (f) The main feature of inner core of seed quality is genetic purity. ☐
- (g) Golden colour tag is used for Foundation Seed. ☐
- (h) Certification during certified seed production is voluntary. ☐
- (i) For production certified seeds of maize, isolation requirement are 300 m. ☐
- (j) Nation Seed Policy replaced by central seed committee with National Seed Board. ☐
- (k) A Plant deviating from the normal characteristics of the variety is known as volunteer plant. ☐
- (l) Seed disinfestations eradicates fungal spores present within the seed coat. ☐
- (m) cob in maize is male flower ☐
- (n) Isolation distance of rice varital seed production is 200m. ☐

2. Fill up the blanks with most appropriate words :**0.5×16=8.0**

- (a) Moisture content required for safe-storage of rice seed is _____
- (b) Give one example of composite variety of maize _____.
- (c) The ratio of R:A line of rice is _____.
- (b) Seed Control Order was issued in _____.
- (e) During tetrazolium test, the colourless solution changed to a _____ coloured, stable and non-diffusible substance named as _____.
- (f) Give one example of Intraspecific variety of cotton _____.

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(2)

- (g) _____ genetic variation can occur even in varieties appearing phenotypically uniform.
- (h) Tag colour of Foundation Seed of rice is _____.
- (i) To produce _____ seeds, you need to procure foundation seeds.
- (j) TRIPs stands for _____.
- (k) Grow out test is carried out for testing of _____ purity of a variety.
- (l) Minimum germination percentage required for the certification of rice is _____.
- (m) Sodium hydroxide seed soak method is used for _____ test of seeds.
- (n) The number of inspection depends on the _____ and _____ of the crop.
- (o) Isolation distance of chilli at the production of foundation and certified seeds

3. Answer the following questions (**any five**) :

1.0×5=5.0

(a) Seed viability

(b) Seed replacement rate

(c) Developmental variation

(d) Grow out test

(e) Rouging

(f) Real value of seed

(g) Physical purity

B.Sc. (Honours) Agriculture Examination, 2019

Semester-IV

Course No: CPH-221

(Principles of Seed Technology)

Part - II

(Descriptive Type)

Time : 90 Minutes

Full marks : 30

Questions are of value as indicated in the margin

Answer *any three* questions

4. Write short notes on (any five) : 2×5=10
a) Seed Certification Agency b) Harrington's rule for seed storage
c) Breeders' rights d) Labelling of seed packages e) Seed marketing
f) Synthetic seed g) Composite seed
5. a) What are the different reasons for deterioration of released variety?
b) What is seed priming? 6+4=10
6. a) What is meant by seed quality?
b) Name the different tests used for determining seed vigor.
c) Briefly discuss the seed production techniques of variety and hybrid cotton. 2+3+5=10
7. a) What are the objectives of seed processing?
b) Write down different methods of seed drying.
c) Differentiate between Sun drying and forced air drying. 3+3+4=10
8. a) Write down the seed production technology of hybrid rice.
b) What is egg flotation technique? 7+3=10
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