



## **BRAINWARE UNIVERSITY**

Prainware University
Brainware University
Ramkrishnapur Road, Barasal
Prainware University

## Term End Examination 2024-2025 Programme – B.Sc.(Ag)-Hons-2022 Course Name – Crop Improvement-I(Kharif Crops) Course Code - CC-BAG575(T) ( Semester V )

Full Marks: 50

Time: 2:0 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

## Group-A

(Multiple Choice Type Question)

1 x 20=20

- Choose the correct alternative from the following :
- (i) Identify the kharif crop.
  - a) Jowar

b) Maize

c) Paddy

- d) All of these
- (ii) Barak valley in Assam is famous for which among the following?
  - a) Bamboo Industry

b) Petroleum production

c) Tea Cultivation

- d) Cottage Industries
- (iii) Which among the following countries is the largest producer of rice?
  - a) India

b) Bangladesh

c) China

- d) Australia
- (iv) Identify the first high yielding semi-dwarf aromatic rice variety.
  - a) Texamati

b) T9

c) Pusa Basmati 1

- d) Taroro Basmati
- (v) Identify the dwarfing gene present in rice.
  - a) Dee-Geo-woo-Gen

b) IR-8

c) IR-20

- d) TN-1
- (vi) Choose the correct option: Tift A is an important source of male sterility in
  - a) Penisetum typhoides

b) Sorghum

c) Avena sativa

- d) None of these
- (vii) Choose the correct option: According to De Candole (1904 & 1932), the centre of origin of pigeon pea is
  - a) Africa

b) Asia

c) Australia

d) Russia

(viii	) Where is the centre of origin of black gram?	Kolkata, West Benga
	<ul><li>a) Indian sub continent</li><li>c) Ethiopia</li><li>Show the correct option: The inflorescence of black</li></ul>	b) China d) None of these
	a) Axillary c) Both 1 & 2	b) Terminal d) None of these
	Which of the following type of groundnut having a) Bunch, c) Spreading Phyllody disease of sesame is a which type of dis	<ul><li>b) Semi-spreading</li><li>d) All of these</li></ul>
	a) Mycoplasma c) Viral What is the primary objective of cereal breeding	b) Fungus d) Bacterial
	<ul> <li>a) Increasing crop yield</li> <li>c) Improving grain quality</li> <li>) Show one modern innovative approach in vegeta Cucumber.</li> </ul>	<ul><li>b) Enhancing disease resistance</li><li>d) All of these</li><li>able breeding, including Okra and</li></ul>
(xiv	<ul> <li>a) Conventional breeding</li> <li>c) Tissue culture propagation</li> <li>) Relate out one example of a modern breeding apresistant varieties in vegetables.</li> </ul>	
(xv	<ul><li>a) Traditional cross-breeding</li><li>c) Genetic modification</li><li>In sugarcane breeding, interpret the main object</li></ul>	<ul> <li>b) Introduction of chemical pesticides</li> <li>d) Natural selection</li> <li>dive when developing new varieties.</li> </ul>
	<ul><li>a) Reducing fiber content</li><li>c) Enhancing leaf color</li><li>) Choose the correct option: A modern innovative</li></ul>	<ul><li>b) Increasing sucrose content</li><li>d) Improving seed production</li></ul>
	<ul> <li>a) Open-pollinated variety development</li> <li>c) Traditional cross-breeding</li> <li>i) What is one of the major challenges in breeding methods?</li> </ul>	<ul><li>b) Mutation breeding</li><li>d) Tissue culture propagation</li></ul>
xvii	<ul><li>a) Limited genetic diversity</li><li>c) Resistance to pests</li><li>i) Which of the following is a conventional breedin</li></ul>	<ul><li>b) Rapid growth rate</li><li>d) High seed yield</li><li>g technique used in arhar improvement?</li></ul>
(xix	<ul><li>a) Marker-assisted selection (MAS)</li><li>c) Hybridization</li><li>) Relate the following: A conventional breeding te</li></ul>	b) Genetic engineering d) CRISPR-Cas9 editing chnique used in chickpea improvement.
	a) Marker-assisted selection (MAS) c) Hybridization In chickpea breeding, what is the primary focus	<ul><li>b) Genetic engineering</li><li>d) CRISPR-Cas9 editing</li></ul>
	a) Increasing flower fragrance c) Improving resistance to aphids	b) Enhancing stem strength d) Promoting seed quality and yield

## Group-B

(Short Answer Type Questions)

2.5 x 10=25

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6.11.6	KOlkala, Mear poura
<ol><li>What are the full form of RSGCA, RSSCA, RRS?</li></ol>	(2.5)
3. What are the full form of ICRISAT and AIPIP with its place?	(2.5)
4. Explain about the achievement of arhar.	(2.5)
5. Discuss about floral biology of Cowpea.	(2.5)
6. Explain the importance of ideotype concept in crop breeding.	(2.5)
7. Explain the hybrid seed production technology in maize.	(2.5)
8. Prepare a list of different methods or Breeding Allogamous specie	es. (2.5)
9. Elaborate about Three line hybrid development system.	
10. Explain about Two line hybrid development system.	(2.5)
11. Discuss about origin and distribution of arhar.	(2.5)
	(2.5)
OR	
Elaborate the male sterile line and recurrent selection method of	arhar. (2.5)
Group-C	
(Long Answer Type Questions)	5 x 1=5
12. Explain briefly about benefits of PGR.	(5)
OR	(3)
Explain the different Objectives of Rice Breeding.	(5)
- The same same as postaves of the differential.	(5)