17206

BRAINWARE UNIVERSITY

Term End Examination 2025-2026
Programme – B.Sc.(Ag)-Hons-2022/B.Sc.(Ag)-Hons-2023
Course Name – Crop Improvement-I(Kharif Crops)
Course Code - CC-BAG575(T)/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

1. *Choose the correct alternative from the following :*

(i) The kharif crops are harvested in which month?
a) June- July b) Oct- Nov
c) Jan- March d) None 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 Indian state is the maximum producer of cotton crop?
a) Gujarat b) Maharashtra
c) Madhya Pradesh d) Uttar Pradesh

(iv) Choose the correct option: Soil pH required for maize cultivation is
a) 4.5-5.5 b) 5.5-7.5
c) 3.5-4.5 d) 8.5-9.5

(v) Identify the first high yielding semi-dwarf aromatic rice variety.
a) Texamati b) T9
c) Pusa Basmati 1 d) Taroro Basmati

(vi) Identify the dwarfing gene present in rice.
a) Dee-Geo-Woo-Gen b) IR-8
c) IR-20 d) TN-1

(vii) Relate the term of inflorescence of rice.
a) Panicle b) Spike
c) Capitulum d) Ear

(viii) HCN toxicity is related to which crop?
a) Sorghum b) Pearl millet
c) Maize d) Barley

(ix) What is the chromosome number of Cajanus cajan?
a) 22 b) 14

c) 20 d) 30

(x) Where is the centre of origin of black gram?

a) Indian sub continent b) China
c) Ethiopia d) None of these

(xi) Show the correct option: The inflorescence of black gram is

a) Axillary b) Terminal
c) Both 1 & 2 d) None of these

(xii) Identify the scientific name of Urdbean.

a) Phaseolus mungo b) Vigna mungo
c) Both 1 & 2 d) None of these

(xiii) Where is the centre of origin of groundnut?

a) Brazil b) Asia
c) Ethiopia d) None of these

(xiv) Where is the centre of origin of soybean?

a) China b) India
c) America d) Africa

(xv) Identify the family belongs to soybean.

a) Asteraceae b) Poaceae
c) Papillionaceae d) Malvaceae

(xvi) Choose the correct option: Primary breeding objective for Okra is

a) Increased shelf life b) Improved disease resistance
c) Enhanced sweetness d) Larger fruit size

(xvii) Identify the primary breeding objectives for cotton.

a) Increased sugar content b) Longer fiber length
c) Enhanced root system d) Reduced height of the plant

(xviii) Which technique is commonly used to induce genetic variability in cotton?

a) Controlled pollination b) Mutagenesis
c) Grafting d) Micropropagation

(xix) Show the correct option: An example of a modern breeding approach used to enhance disease resistance in cowpea.

a) Traditional cross-breeding b) Introduction of chemical pesticides
c) Genetic modification d) Natural selection

(xx) Which of the following is a conventional breeding technique used in arhar improvement?

a) Marker-assisted selection (MAS) b) Genetic engineering
c) Hybridization d) CRISPR-Cas9 editing

Group-B

(Short Answer Type Questions) 2.5 x 10=25

2. What are the full form of RSGCA, RSSCA, RRS? (2.5)
3. Explain an innovative breeding approach for improving Okra's drought tolerance. (2.5)
4. List about various modified mass selection methods of maize. (2.5)
5. Elaborate about area, Production and Productivity of cowpea. (2.5)
6. Identify the challenges may arise in hybrid seed production technology for maize. (2.5)
7. Elaborate about Three line hybrid development system. (2.5)
8. Explain about Two line hybrid development system. (2.5)
9. Elaborate about Temperature sensitive genetic male sterility (TGMS) system (2.5)
10. Explain about origin and distribution of maize. (2.5)
11. Discuss about origin and distribution of arhar. (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. Discuss about the breeding objectives of Pearl millet. (5)

OR

Elaborate the hybrid seed production technology of rice. (5)

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