

HALF-YEARLY EXAMINATION - 2023

STD - XII

TIME : 3.00 Hrs

BOTANY

YouTube/ Akwa Academy

MARKS : 70

Part - A

I. Answer all the questions.

15 x 1 = 15

- Identify the correctly matched pair
 - Tuber - Allium Cepa
 - Sucker - Pistha
 - Rhizome - Zingiber
 - Stolon - Musa
- Select the period for Mendel's hybridization experiments
 - 1856 - 1863
 - 1850 - 1870
 - 1857 - 1869
 - 1870 - 1877
- Synthetic seeds (or) synseeds are produced by encapsulation of embryoids by
 - Agar
 - Calcium alginate
 - Agarose gell
 - Both B and C
- Geneticist who first reported mobile controlling element
 - G.D. Karpechenko
 - Muller
 - Barbara M.C. Clintock
 - Alfred H-Sturtevant
- called as white vegetables
 - Radish
 - Cocount
 - Mushrooms
 - single cell protein
- If a haploid number in a cell is 18. The double monosomic and trisomic number will be
 - 35 and 37
 - 34 and 35
 - 37 and 35
 - 17 and 19
- World environment day
 - April 22
 - July 07
 - September 16
 - June 05
- has THC to treat glaucoma
 - popy
 - marijuana
 - tabacco
 - carrot
- called as the forest man of India.
 - Salim Ali
 - Jayaprakash
 - Jadarpayeng
 - Ram deomisrai
- Which of the following is / are not mechanism of decomposition
 - Eluvjation
 - Catabolism
 - Anabolism
 - Fragmentation
- Match Column I with Column II

Column I	Column II	
i) William S. gaud	1) Heterosis	a) i - 1, ii - 2, iii - 3, iv - 4
ii) Shull	2) Mutation breeding	<input checked="" type="checkbox"/> b) i - 3, ii - 1, iii - 4, iv - 2
iii) Cotton mather	3) green revolution	c) i - 3, ii - 2, iii - 1, iv - 4
iv) Muller and stadler	4) Natural Hybridization	d) i - 2, ii - 4, iii - 3, iv - 1
- Pick out the mismatched pair
 - Entamophily - Insects
 - Malacophily - mamals
 - Cheiropterophily - Buts
 - Ornithophily - Birds
- Cellular totipotency was demonstrated by
 - Theodore schwann
 - A.V. Heeuwenhock
 - F.C. Steward
 - Robet Hooke
- Chipko movement was launched for the protection of
 - forests
 - live stock
 - Wetlands
 - grass lands
- Green revolution in India occurred during
 - 1960's
 - 1970's
 - 1980's
 - 1950's

Part - B**Answer any Six questions. Q.No. 20 is compulsory****6 x 2 = 12**

16. Differentiate tenuinucellate type and crassinucellate type?
17. Define plasmid?
18. What is Totipotency?
19. Which soil is suitable for cultivation? Give reason?
20. Define Heterosis?
21. Define Velamen?
22. What is ozone hole?
23. If you buy imported fruit like Kiwi indirectly if increase CFP - How?
24. Define Malocophily? **YouTube/ Akwa Academy**

Part - C**Answer any six questions. Q.No. 33 is compulsory****6 x 3 = 18**

25. Write the media formulation available for plant tissue culture?
26. Write the function of Tapetum?
27. What is polyembryony? How it can commercially exploited?
28. Write the significance of food web.
29. What is Vivipary? Name a plant group which exhibits Vivipary?
30. What will happen if all producers are removed from Ecosystem?
31. Differentiate primary introduction from secondary introduction?
32. Write the uses of Tumeric
33. Draw and label the diagram PAB₃₂₂ plasmid?

Part - D**Answer all the questions.****5 x 5 = 25**

34. a) With suitable diagram explain the structure T.S. of mature anther. (OR)
- b) Describe Dihybrid Cross
35. a) Explain Significant of Ploidy? (OR)
- b) What is sterilization? Write the various types of sterilization followed in tissue culture laboratory?
36. a) Generally human activities are against to the ecosystem, where as you a student how will you help to protect ecosystem? (OR)
- b) Explain different interactions of plants with suitable example.
37. a) Describe the steps in hybridization (OR) b) Describe benefits of agroforestry
38. a) What are the psychoactive drugs? Add a note marijunana and opium. (OR)
- b) As an entrepreneur, How will you cultivate mushroom.