B.Sc., DEGREE EXAMINATIONS – JANUARY'18
(Students admitted from the academic year 2016 - 2017 onwards)
I SEMESTER
AGRICULTURE
Paper I
Introduction to Agricultural Botany
Time: 2 1/2 Hrs
Marks: 40
Answer all the Questions
SECTION – A
20 x 0.5 = 10

1. Choose the correct answer
   1. The chromosome number of Maize is
      a) 2n =20  b) 2n =24  c) 2n =26  d) 2n =30
   2. Diadelphous stamens are mostly present in family of
      a) Poaceae  b) Malvaceae  c) Fabaceae  d) Tilliaceae
   3. The synthetic fibre obtained from protein of Ground nut is
      a) Rilson  b) Ardil  c) Fibril  d) Cellulose
   4. Economic part of Coffee is
      a) Seed  b) Young leaf  c) Matured leaf  d) Fruit
   5. Stem fibre obtained from
      a) Cotton  b) Jute  c) Ramie  d) All the three

II. Fill in the Blanks
   6. Botanical name of Rice is -----------------
   7. Pulses seeds are rich in -----------------
   8. The condition of flowers, Ovule mature the before the anther is known as -----------------
   9. King of vegetables is -----------------
  10. Botanical name of Bengal gram is -----------------

III. Match the following
   11. Red gram - Leaf sheath fibre
    12. Manila hemp - Fabaceae
    13. HCN - Capitulum
    14. Sunflower - Young leaves
    15. Tea - Sorghum

IV. State true or false
   16. Female inflorescence of maize is called as cob
   17. Coffee belongs to the family Theaceae
   18. Pulses seeds are rich in protein
   19. Fruit type of Rice is Caryopsis
   20. Economic part of cotton is lint

SECTION – B
5 x 1 = 5

Answer any FIVE Questions

1. Differentiate Garden bean and Field bean
2. Origin of Gossypium hirsutum
3. What is Phyllotaxy? Name the types of phyllotaxy
4. Write a Tree fodder crop and their uses
5. List out the sorghum land races available in Tamil Nadu
6. Inflorescence of Castor
Answer any FIVE Questions

1. Uses of Sugarcane
2. Write short notes on Retting of Jute
3. Illustrate the genetic relationship of (U triangle) of oilseed Brassica by Nagaharu U (1935)
4. Differentiate Desi and Kabuli types of Bengal gram
5. Pod development in Ground nut with diagram
6. Utilization of Soybean

SECTION – C

5 x 2 = 10

Answer any THREE Questions

1. What are the characteristics features of Poaceae family? Write utilization of any two crops
2. Topping for coconut toddy and uses of coconut
3. Agricultural classification of crops
4. List out the legume forages with botanical name and their uses

SECTION – D

3 x 5 = 15
1. Choose the correct answer

1. The main function of Mitochondria is
   a) Cellular respiration  b) b) Cytocone  c) Cell lysis  d) Protein
2. Glycolysis takes place in
   a) Cytocoll  b) Mitochondria  c) Mesosomes  d) All the three
3. Which of the following is growth retardant?
   a) Cytocoll  b) Morphactins  c) Maleic  d) All of them
4. Stomata open at night in
   a) C3 plant  b) C4 plant  c) CAM plant  d) None of them
5. Which amino acids accumulate under water stress condition in plant
   a) Prolinc  b) Methionine  c) Threonine  d) Alanine

II. Fill in the Blanks

6. Dicotyledons plants have ___________ shaped guard cells
7. Seed dormancy induced by ____________ hormone
8. Photoperiodism was first discovered by ____________
9. Deficiency of water severe enough to check the plant growth is called as ____________
10. Flowering hormone is ____________

III. Match the following

11. Hydrophonic - Khira disease in rice
12. Calcium - Apical dominance
13. Ethylene - Fruit ripening hormone
14. Auxin - Blossom end rot
15. Zinc - Soil less culture

IV. State True or False

16. Cotton and sunflower are examples of short day plants
17. The loss of water in the form of vapor is called as Guttation
18. Ethylene is the only gaseous hormone present in plants
19. IAA is naturally occurring Auxin in plants
20. Molybdenum deficiency causes whiptail disease in cauliflower

Answer any FIVE Questions

1. Define Water potential
2. Write about Hidden hunger
3. Define Water logging
4. What is Carbon sequestration?
5. What is growth inhibitor? Give an example
6. What is photolysis of water?

SECTION - C

Answer any FIVE Questions

1. Enumerate the Role of water in plants
2. Define Foliar nutrition and its advantages
3. Write short notes on non-cyclic photophosphorylation (Z scheme)
4. Bring out the physiological effects of auxin
5. Differentiate short day and long day plants
6. Write an account effect of salt stress on plant growth and yield

SECTION - D

Answer any THREE Questions

1. Define Transpiration and Explain the factors affecting rate of transpiration in plants
2. Describe the sequences of reactions of Krebs cycle
3. Define Photosynthesis. Elucidate the external and internal factors affecting photosynthesis
4. Write an account on cytokinin, ethylene and abscisic acid with their physiological effects