

B. Sc. DEGREE (C.BC.S.S.) EXAMINATION, MARCH 2017
(2016 Admission – Regular & 2015 Admission – Supplementary / Improvement)
SEMESTER II - COMPLEMENTARY COURSE (BOTANY)
BO2C02TB – PLANT PHYSIOLOGY AND CROP PATHOLOGY
(For Zoology)

Time: Three Hours

Maximum Marks: 60

PART A

I. Answer all questions. Each question carries 1 mark.

1. What is DPD?
2. Mention the role of reaction centre in photosynthesis.
3. What is Rubisco?.
4. Define Nitrogen fixation.
5. What causes Nutfall in Arecanut?

(5x1=5)

PART B

II. Answer any five questions. Each question carries 2 marks.

6. Why is salt used to preserve fish and meat? Explain the physiological phenomenon behind this practice.
7. Distinguish between turgor pressure and wall pressure.
8. Mention two differences between C₃ and C₄ plants.
9. Explain photolysis of water.
10. Distinguish between Nitrification and Denitrification.
11. Explain Sigmoid growth curve.
12. Mention the factors that promote seed germination.
13. What are the symptoms of Mosaic disease in Tapioca?

(5x2=10)

PART C

III. Answer any five questions. Each question carries 5 marks.

14. A teacher put some dry seeds in a glass bottle, poured some water into the bottle and screw capped it. The bottle burst after some time. What physiological phenomenon did the teacher try to demonstrate? Explain various aspects of the phenomenon.
15. 'Transpiration is a necessary evil'. Comment on the statement
16. Make a labelled diagram of the Chloroplast and explain its structure.
17. Explain the external factors that affect Photosynthesis.
18. Give a brief account on Senescence.
19. What are the different tropic movements? Explain.
20. Mention the applications of Auxins.

21. Name the bacteria that cause blight of Rice. Explain the symptoms of the disease.
(5x5=25)

PART D

IV. Answer any two questions. Each question carries 10 marks.

22. Explain the different mechanisms involved in the absorption of water by plants.
23. Explain the process of Non cyclic photophosphorylation with the help of a schematic representation.
24. What is seed dormancy? Mention the factors that cause seed dormancy. What are the techniques to break seed dormancy?
25. Describe the classification of plant diseases with suitable examples.
(2x10=20)