

**19P329**

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Name.....

Reg. No.....

**THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2020**

(CBCSS-PG)

**CC19P BOT3 C07 - PLANT PHYSIOLOGY, METABOLISM AND BIOCHEMISTRY**

(Botany)

(2019 Admission Regular)

Time: Three Hours

Maximum: 30 Weightage

I. Answer any *four* questions. Each question carries 2 Weightage.

1. Which are the physiological effects of phytochromes?
2. What is Saponification? Cite its importance.
3. What is water potential?
4. What is gluconeogenesis?
5. What are allosteric enzymes?
6. What are chromoproteins?
7. What is isoelectric point of amino acids.

**(4 x 2 = 8 Weightage)**

II. Answer any *four* questions. Each question carries 3 weightage.

8. Describe the biochemistry of biological nitrogen fixation.
9. Explain the physiology of phloem loading.
10. Explain the impacts of drought stress in plants.
11. Write a note on mechanism of enzyme action.
12. What are the anapleurotic reactions of Krebs cycle?
13. Differentiate denaturation from renaturation of proteins.
14. Evaluate the supramolecular architecture of membranes.

**(4 x 3 = 12 Weightage)**

III. Answer any *two* questions. Each question carries 5 weightage.

15. Differentiate C3 cycle from CAM. Add a note on their ecological significance.
16. Explain ETS. Discuss the protein complexes taking part in electron transport system.
17. Elucidate the biosynthesis of purines and pyrimidines.
18. What is a peptide bond? Explain the three dimensional structure of proteins.

**(2 x 5 = 10 Weightage)**

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