

2024
B.A./B.Sc.
Sixth Semester
CORE – 13
BOTANY
Course Code: BOC 6.11
(Plant Metabolism)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Explain the synthesis of starch. Support your answer with flow chart. 2+12=14
2. Write short notes on the following: 7+7=14
 - (a) Allosteric enzyme
 - (b) Covalent modulation

UNIT-II

3. Discuss on the different components of photosystem I and II. 7+7=14
4. Explain the photosynthetic Q-cycle. Support your answer with flow chart. 10+4=14

UNIT-III

5. With the help of schematic chart explain the pentose phosphate pathway. Give its significance. 10+4=14
6. Why is Krebs cycle known as tricarboxylic acid cycle? Explain the Krebs cycle with the help of flow chart. 2+12=14

UNIT-IV

7. Write an account on the synthesis and breakdown of triglycerides. 14
8. Write notes on the following: 8+6=14
- (a) Racker's experiment
 - (b) Uncouplers

UNIT-V

9. Write short notes on the following: 7×2=14
- (a) Symbiotic nitrogen fixation
 - (b) Root nodule formation in legumes
10. Give an account of special modes of nutrition in angiosperms. 14
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