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Total No. of Printed Pages: [01]

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B.Sc. (Hons.) Agriculture (Semester – 1st)
FUNDAMENTALS OF PLANT BIOCHEMISTRY
Subject Code: BAGRS1155
Paper ID: [21130105]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

- Q1. Attempt the following:
- a) What is the function of enzymes in metabolic pathways?
 - b) What are antibodies?
 - c) What is the primary function of structural proteins?
 - d) What is an amino acid?
 - e) What are non-essential amino acids for humans?
 - f) What is the primary structure of a protein?
 - g) What are sterols?
 - h) What are phospholipids?
 - i) What are carbohydrates?
 - j) What is cellulose?

Section – B

(5 marks each)

- Q2. Define polysaccharides. Classify them and write their importance.
- Q3. Define phospholipids. Classify them with suitable examples and state their functions.
- Q4. Explain the structure and functions of different type of RNAs.
- Q5. What do you mean by nucleic acids and its classification?
- Q6. Give the details about importance of vitamin and its types.

Section – C

(10 marks each)

- Q7. Define enzymes. Explain nomenclature and IUBMB classification with suitable examples.
- Q8. Explain the Watson and Crick model of DNA. Add a note on different forms of DNA (DNA polymorphism).
- Q9. Describe TCA cycle along with regulation and its energetic. Add a note on its Amphibolic role.