Roll No……..….. **Total No. of Printed Pages: [01]**
Total No. of Questions: [09]

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.