Roll No. : .....

Total No. of Questions : **11**] [Total No. of Printed Pages : **3**

BPP–1073

M.Sc. (Previous) Examination, 2022

BOTANY

Paper - IV

(Biochemistry and Plant Physiology)

*Time : **3** Hours*] [*Maximum Marks : **75***

Section–A **(Marks : 2 × 10 = 20)**

Note :– Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

Section–B **(Marks : 5 × 5 = 25)**

Note :– Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **5** marks.

Section–C **(Marks : 10 × 3 = 30)**

Note :– Answer any *three* questions out of five (Answer limit **500** words). Each question carries **10** marks.

Section–A

1. Attempt the following questions :

   (i) What is Glycogen ?

   (ii) Explain in brief the 'Redox Potential'.

(iii) Basic difference between Primary and Secondary metabolites.

(iv) What is SPAC ?

(v) Donnan Equilibrium ?

(vi) What are Assimillatory Powers ?

(vii) Pasteur Effect.

(viii) Abbreviate GOT and GPT.

(ix) What is Apical Dominance ?

(x) Give *four* examples each of short day and long day plants.

Section–B

2. Describe the biological significance of proteins.

Or

Explain coenzymes with suitable examples.

3. Write short notes on the following :

(a) What is SAR in secondary metabolites ?

(b) What are Phytoalexins ?

Or

Describe water potential.

4. Explain factors affecting mineral uptake.

Or

Describe the evidences in support of light and dark reaction.

5. Describe "Warbury-Dickens Pathway".

Or

Explain genetics of Diazotrophs.

6. Describe the physiological effects of abscisic acid.

Or

Explain vernalization.

Section–C

7. Give a detailed account on properties and biological significance of carbohydrates.
8. Describe the major classes of secondary metabolites.
9. Give a detailed account on Hatch and Slack cycle.
10. Describe Cytochrome system.
11. Explain bioassay and physiological effects of cytokinins.