

RANIGANJ GIRLS' COLLEGE

MODEL QUESTIONS

BOTANY [HONOURS]

PAPER- C-8

F.M: 40

The figure in the right-hand margin indicates marks. Candidates are required to give their answer in their own words as far as practicable.

Biochemistry & Plant Metabolism

1. Answer any two questions of the following: For 1 & 2 marks
 - (a) Under what circumstances, R.Q will be zero & infinity?
 - (b) What do you mean by allosteric enzymes?
 - (c) How saturate fatty acids are differing from unsaturated one?
 - (d) What is Nod factor?
 - (e) CAM plants have unique mechanisms of carbon assimilation-Justify.
2. Answer any two questions of the following: For 5 marks
 - (a) Describe the nodule formation during symbiotic N₂ fixation.
 - (b) Describe C₄ Pathway relating to Carbon assimilation. C₄ plants are efficient to assimilate carbon even at the low concentration- How?
 - (c) Describe the synthesis of triglycerides. What do you mean by steroids?
 - (d) State the mechanisms involved in the regulation of TCA cycle. What is Pasteur Effect?
3. Answer any two questions of the following: For 10 marks
 - (a) Describe Krebs cycle mentioning the enzymes involved therein. Prepare the balance sheet of ATP during complete oxidation of glucose.
 - (b) Name the organelles involved in photorespiration. Write down the compartmentalized reactions of photorespiration within the organelles mentioning the enzyme involved therein. Do you think it is a wasteful process?
 - (c) Define Iso-enzymes with example. What do you mean by Michaelis constant value? Write down the effect of temperature & pH on the enzyme activity.
 - (d) State the regulation of metabolism control at the level of transcription and translation. What do you mean by protein folding?