Bankura University
B.Sc. 6th Semester (Honours) Examination, 21
Subject: BOTANY

Course ID: 61311 **Course Code: SHBOT/601/C-13**

Course Title: Plant Metabolism

Full Marks: 25 **Time: 1h.15min.**

The figures in the margin indicate full marks

Answer all the questions.

UNIT I

1. Answer *any five* of the following questions: **(1 X 5)**

a) What are accessory pigments?
b) Write scientific name of a CAM Plant.
c) Write down full form of NADPH?
d) Write the significance of cyanide resistant respiration?
e) What is the role of accessory pigments in photosynthesis?
f) Give one example of substrate level phosphorylation from glycolysis.
g) What is allosteric enzyme?
h) Name decarboxylation product of pyruvate.

UNIT II

2. Answer *any two* of the following questions: **(5 x 2)**

a) With suitable line diagram explain the oxidative process of phosphorylation .
b) Write down the step of photorespiration that occurs in mitochondria. Why photorespiration is insignificant in C_4 plant? 3+2=5
c) Schematically represent the process of biological N_2 fixation.
d) Comment on the anatomical specialities found in C_4 Plants.

UNIT III

3. Answer *any one* of the following questions: **(10 X 1)**

a) With suitable illustrations describe the β-Oxidation pathway in Lipid Metabolism. Comment on Boyers conformational model. 8+2=10

a. Describe TCA Cycle with suitable diagram mentioning the names of enzymes involved. Write four significances of Photorespiration.

8+2=10