

Bankura University

B.Sc 5th SEMESTER(Program) EXAMINATIONS, 2021

Subject: BOTANY

Course ID: 51318

Course Code: SPBOT/501/DSE-1A

Course Title: **Cell and Molecular Biology**

Full Marks: 25

Time : 1 h 15 min

The figures in the margin indicate full marks

Answer all the questions.

UNIT-I

1. Answer any five questions from the following:

1×5=5

- a. Write the full name of STEM.
- b. Who proposed the cell theory?
- c. What are cristae?
- d. What is oxysome?
- e. Write two main differences between DNA and RNA.
- f. What are okazaki fragments?
- g. Write the role of mRNA?
- h. In which phase of cell cycle DNA synthesis takes place.

UNIT-II

2. Answer any two questions:

5×2=10

- (a) Describe the structure and function of chloroplast with diagram.
- (b) Describe the initiation process of DNA replication.
- (c) What is genetic code? Write the characters of it.
- (d) What is cell cycle? Describe the interphase of cell cycle.

UNIT-III

3. Answer any one question:

10×1=10

- (a) What is transcription? Describe the transcription process found in prokaryotic cell with neat sketch.
- (b) Describe the structure and functions of nucleus with neat diagram.