



বিদ্যাসাগর বিশ্ববিদ্যালয়
VIDYASAGAR UNIVERSITY
Question Paper

B.Sc. Honours Examinations 2020

(Under CBCS Pattern)

Semester - I

Subject: BOTANY

Paper : C 2-T & C 2-P

Biomolecule and Cell Biology

Full Marks : 60 [Theory-40 + Practical-20]

Time : 3 Hours

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

[Theory]

Answer any *two* questions :

20 × 2 = 40

1. a. Write down the structure and properties of water.
 - b. Classify the carbohydrates with suitable example.
 - c. Describe the fluid mosaic model of cell membrane.
2. a. Write the properties and function of Phosphoglycerides.
 - b. Briefly describe about the secondary structure of Protein.
 - c. Describe the structure of B-DNA.

6+8+6

6+8+6

3. a. Write about ATP: structure, its role as an energy currency molecule.
b. Briefly describe the lock and key hypothesis. Describe the chloroplast structure. (4+4)+(6+6)
4. a. Write down the characteristics of prokaryotic and eukaryotic cells.
b. What is cell cycle? Write about the phases of eukaryotic cell cycle. (4+4)+ (6+6)

Paper - C 2-P
(Practical)

Answer any **one** question : 20 × 1 = 20

1. a. Write about the qualitative tests for carbohydrates
b. Write the identifying character of different phases of mitosis. 10+10
2. a. Write about the tests for lipids and proteins.
b. Mention the identifying characters of cell organelles. 10+10
3. a. Draw and label the phenomenon of plasmolysis and deplasmolysis.
b. Draw and describe the phenomenon of protoplasmic streaming in *Hydrilla* leaf. 10+10
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