

U. G. 6th Semester Examination 2022

BOTANY (Honours)

Paper Code : DC-13

[CBCS]

Full Marks : 25

Time : Two Hours

The figures in the margin indicate full marks.

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

1. Answer any *five* of the following: 1×5=5
 - (i) Define redox reaction.
 - (ii) Name two enzyme inhibitors.
 - (iii) Name one mono and one polyunsaturated fatty acid having the same number of the carbon atom.
 - (iv) Why amino acids are called ampholytes?
 - (v) What are amino sugars? Give example.
 - (vi) What is pH?
 - (vii) What is Co-enzyme?
 - (viii) What is a glycosidic bond?

2. Answer any *four* of the following: 3×4=12
 - (i) State in brief the effect of temperature on enzyme activity.
 - (ii) Differentiate between saturated and unsaturated fatty acids.
 - (iii) Briefly enumerate the salient features of B-DNA.
 - (iv) Give a short note on the secondary structure of a protein.
 - (v) Describe the structure of t-RNA with a suitable diagram.
 - (vi) Give classification of carbohydrates with examples.
 - (vii) What is the Michaelis-Menten equation? What is K_m value? 1.5+1.5

[P.T.O.]

(2)

3. Answer any *one* of the following:

8×1=8

(i) 'Classify enzymes based on the IUBMB system. What is the EC number of an enzyme?
Name an oxidoreductase and a hydrolase enzyme.

5+1+2=8

(ii) State the laws of thermodynamics. Explain endergonic and exergonic reactions with respect to free energy change.

4+4=8
