

- (b) Describe the classification of enzymes by IUB System citing example of each class.
- (c) Briefly describe the structure of B-DNA.
- (d) Elucidate the various types of membrane transport systems.

### Unit-III

3. Answer **any one** question : 10×1=10
- (a) Describe with suitable diagrams the process of meiotic prophase-I. How prophase-I differs from prophase-II.
- (b) What is peptide bond? Describe briefly the different types of protein structures.

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## B.Sc. 1st Semester (Honours) Examination-2022-23

### BOTANY

Course ID : 11312 Course Code : SH/BOT/102/C-2

Course Title : Mycology & Phytopathology (New)

Time : 1 Hour 15 Minutes

Full Marks : 25

*The figures in the right hand margin indicate full marks.*

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

### Unit-I

1. Answer **any five** questions : 1×5=5
- (a) What is Ascostroma?
- (b) What is Helotism?
- (c) Define phytoepidemic disease.
- (d) What is obligate parasite?
- (e) What do you mean by disease triangle?
- (f) What do you mean by Hartig net?
- (g) What is the source of ergotamine?
- (h) Give example of a systemic fungicide?

(Turn Over)

**Unit-II**

2. Answer **any two** questions : 5×2=10
- (a) Give a brief account on Koch's postulates.
- (b) Write a short note on agricultural importance of fungi.
- (c) Write down different steps of event to complete parasexual cycle in Deuteromycotina. Who first reported this phenomenon? 4+1
- (d) Write name of causal organism, symptom and control measure of any one of following disease. 1+2+2
- (i) Tobacco mosaic disease
- (ii) White rust of crucifers
- (iii) Bacterial blight of rice

**Unit-III**

3. Answer **any one** question : 10×1=10
- (a) What is the causal organism of wart disease of potato? Describe its life cycle with labelled sketches. 1+5+4
- (b) Write a short note on different types of mycorrhizae. Discuss its significance in agriculture and forestry. 4+3+3

**Course Title : Biomolecules and Cell Biology (Old)****Unit-I**

1. Answer **any five** questions : 1×5=5
- (a) Give example of quaternary structure of a protein?
- (b) Give an example of a polysaccharide?
- (c) What is isoelectric point?
- (d) Differentiate between holoenzyme and apoenzyme.
- (e) Differentiate between exergonic and endergonic reaction.
- (f) What is the principle of endosymbiotic theory?
- (g) What is the specific function of peroxisome?
- (h) What is the role of checkpoints in a cell cycle?

**Unit-II**

2. Answer **any two** questions : 5×2=10
- (a) Describe the Ultra structure of nuclear pore complex (NPC) with a recent model.