5 How does glucose enter inside the cell? Describe the irreversible steps of glycolysis. What are the metabolic fate of pyruvate? 14

Or

6 Write short notes on following: 7x2=14

a. Pentose phosphate pathway

b. Oxidative phosphorylation

7. a. How LHC (Light harvesting complex) helps in reception of light? With the help of suitable illustration describe the structure of PSII and PSI. 3+7=10

b. Add a note on CAM pathway. 4

Or

8. a. With the help of suitable model, describe the mechanism of signal transduction of Gibberelic acid (GA). 6

b. Write about the general characteristics feature of secondary metabolites in plants. How secondary metabolites are synthesized in plants? 3+5=8

9 What are the components of signal transduction? Describe the mechanism of action of phytochrome and cryptochrome. 2+12=14

Or

10. Write Short notes on the following: 3.5x4=14

a. Phototropin

b. Biological clock

c. ABC model

d. Salt stress

★★★

PG ODD SEMESTER EXAMINATION, 2022

LIFE SCIENCE & BIOINFORMATICS

1st Semester

COURSE NO. LISBCC – 503

(Biochemistry)

Full Marks : 70

Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer all questions

1. Discuss the following with reference to both hydrogen bonding and ionic interactions. 7x2=14

a. Important features

b. Role in biological structure and function

Or

2 Write short notes on the following: 7x2=14

a. Ionisation of water and weak acids

b. Physiological buffer system

3. Write notes on the following: 7x2=14

a. Ramachandran Plot

b. Mechanisms of enzyme action

Or

4. Derive the Michelis-Menten equation from a monosubstrate enzyme catalyzed reaction at equilibrium. 14