

U.G. 4th Semester Examination - 2022

PHYSIOLOGY

[HONOURS]

Course Code : PHYSIOL-H-CC-T-8

Full Marks : 40

Time : $2\frac{1}{2}$ Hour

The figures in the right-hand margin indicate marks.

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

1. Answer any **five** questions: $2 \times 5 = 10$
- a) Define hypervitaminosis.
 - b) What is substrate level phosphorylation?
 - c) Write the differences between hexokinase and glucokinase.
 - d) What are ketone bodies?
 - e) Define SDA.
 - f) Write the physiological functions of Zn.
 - g) What do you understand by decarboxylation of amino acids? Give an example.

2. Answer any **two** questions: $5 \times 2 = 10$
- a) Briefly discuss about the enzymatic steps of glycogenolysis. 5
 - b) Discuss the process of ketogenesis. What ketoacidosis? $4 + 1 = 5$
 - c) Write the physiological functions of copper and iodine. 5
 - d) Write the steps of urea cycle. State the importance of urea cycle. $4 + 1 = 5$
3. Answer any **two** questions : $10 \times 2 = 20$
- a) Elucidate the process of beta oxidation of fatty acids. Write the differences between saturated and unsaturated fatty acids with examples. $8 + 2 = 10$
 - b) i) Discuss the physiological functions of Vitamin C.
ii) Write the deficiency symptoms of Vitamin A and Vitamin C in human body. $6 + 4 = 10$
 - c) Discuss the oxidative steps of pentose phosphate pathway. Write the significance of this pathway. $7 + 3 = 10$
 - d) Discuss the anabolic role of TCA cycle. What do you understand by "Biological value of Proteins"? $6 + 4 = 10$