

B.Sc. 4th Semester (Honours) Examination, 2022

PHYSIOLOGY

Course ID: 42515

Course Code: SH/PHY/405/SEC-2(T)

Course Title: Clinical Biochemistry

Time: 2 Hours

Full Marks: 40

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* questions from the following: **2×5=10**
 - (a) Write the difference between reducing sugar and non-reducing sugar.
 - (b) Discuss Lambert's law.
 - (c) Write down the two causes of hyperproteinaemia.
 - (d) What is glucosuria?
 - (e) Write any two reagents of Fiske-Subbarow method.
 - (f) Mention two functions of plasma proteins.
 - (g) Why serum amylase test is important?
 - (h) How does centrifuge work?

2. Answer *any four* questions from the following: **5×4=20**
 - (a) Write down the primary advantages of Nelson-Somogyi method. State the reagents used in this method. 3+2
 - (b) Describe the apparatus used in photo colorimetric estimation of glucose. 5
 - (c) What is photo colorimeter? How photo colorimeter is used in the laboratory? 2+3
 - (d) Write down the principle of Fiske-Subbarow method. What are the symptoms of phosphorus deficiency? 3+2
 - (e) How does amylase react with iodine? What is amyloclastic technique? 5
 - (f) How arsenomolybdate complex is formed? What is the function of arsenomolybdate reagent? 3+2

3. Answer *any one* question from the following: **10×1=10**
 - (a) What is OGTT? Briefly describe the protocol of blood glucose estimation by Nelson-Somogyi method. Write the normal value of fasting and PP blood glucose level. 2+6+2

 - (b) Write down the procedure and calculation of measurement of serum total protein by Biuret method. State the normal value of total protein present in our body. 6+3+1