B.Sc. 4th Semester (Honours) Examination, 2021

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) What is Beer-Lambert law?

(b) Write any two reagents of Nelson-Somogyi method.

(c) What is the importance of blood glucose measurement?

(d) Write any two applications of colorimeter.

(e) Mention the name of plasma proteins.

(f) What is the significance of albumin-globulin ratio?

(g) How will you prepare protein free filtrate?

(h) State the role of green filter used in colorimeter.

2. Answer any four questions from the following: **5×4=20**

(a) Describe the principle of Nelson-Somogyi method for blood glucose measurement. Mention the normal value of blood glucose level. 4+1= 5

(b) Describe the apparatus used in photocolorimetric estimation. What is optical density? 5

(c) Briefly describe the procedure of blood inorganic phosphate by Fiske - Subbarow method. 5

(d) Mention the principle of biuret method for total protein estimation. What are the reagents used in biuret method? 3+2=5

3. Answer any one question from the following: **10×1=10**

(a) Write down the procedure and significance of determination of serum amylase by iodometric method. Differentiate between photometry and colorimetry. 3+5+2=10

(b) Describe the procedure for determination of albumin globulin ratio. What do you mean by albuminuria? 8+2= 10