

U.G. 3rd Semester Examination-2025

PHYSIOLOGY

[MAJOR]

Course Code : PHY-MJ-T-03

(Body Fluids and Human Immunity)

[NEP-2020]

Full Marks : 40

Time : 2½ Hours

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: 2×5=10
- a) What is sickle cell anaemia?
 - b) What is Arneth Count?
 - c) Write the function of platelets.
 - d) Write the importance of haematocrit value.
 - e) What do you mean by thalassemia?
 - f) State the importance of A:G ratio.
 - g) What is toxoid?
 - h) What is hemolysis?

[Turn Over]

2. Answer any **two** questions: $5 \times 2 = 10$

- a) What is anaemia? Describe the differences between adult haemoglobin and fetal haemoglobin.
- b) What is meant by vaccine? Write about the different types of vaccine.
- c) Discuss the causes and symptoms of AIDS.
- d) Write the principles of ELISA and RIA.

3. Answer any **two** questions: $10 \times 2 = 20$

- a) Discuss the intrinsic pathway of blood coagulation. Discuss about different factors that control erythropoiesis. $5 + 5 = 10$
- b) Describe the structure of an immunoglobulin with a schematic diagram. Differentiate between cell mediated immunity and humoral immunity. $5 + 5 = 10$
- c) Discuss the food sources of iron. Write the different derivatives of haemoglobin. What is MCHC and how it is calculated? $3 + 4 + 3 = 10$
- d) What is allergy? Discuss briefly about the functions of different plasma proteins. $3 + 7 = 10$