

BACHELOR OF SCIENCE (BIOTECHNOLOGY) (CBCS - 2015 COURSE)
T.Y.B.Sc. (Biotech) Sem-V : WINTER :- 2021
SUBJECT: CLINICAL BIOCHEMISTRY

Day : Monday
Date 7/2/2022

W-20555-2021

Time : 10:00 AM-01:00 PM
Max. Marks: 60

N.B.:

- 1) Q1 and Q5 are compulsory.
- 2) Answer ANY TWO questions from Q 2, 3, 4 in Section I.
- 3) Answer ANY TWO questions from Q 6, 7, 8 in Section II.
- 4) Answers to Both the sections to be written in SEPARATE answer books.
- 5) Draw a labeled diagram WHEREVER necessary.

SECTION - 01

Q.1) Answer the following: (ANY FIVE) (2 Marks X 5 = 10)

- a) Write the concentrations of the different white blood cells in the blood.
- b) Enlist the various laboratory tests to evaluate blood clotting cascade.
- c) What is the difference between plasma and serum?
- d) Define-polycythemia; thrombocytosis
- e) Name the genetic disorders responsible for jaundice.
- f) How much bilirubin is produced per day in healthy person?

Q.2) Answer the following: (5 Marks X 2 = 10)

- a) Explain the procedure of urine samples collection.
- b) Describe the composition of blood.

Q.3) Explain the following: (5 Marks X 2 = 10)

- a) Explain the reasons for ordering lab tests.
- b) Describe role of chylomicrons, VLDL, LDL and HDL in lipid transport mechanism.

Q.4) Write short notes on the following: (5 Marks X 2 = 10)

- a) Prothombin time
- b) Neonatal Jaundice

SECTION - 02

Q.5) Answer the following: (ANY FIVE) (2 Marks X 5 = 10)

- a) Where is the liver located in body?
- b) Define -- jaundice. Name the various types of jaundice.
- c) What is the unit of electrolytes concentration? Explain it.
- d) Name any three types of anemia.
- e) Define-1) Hyponatremia, 2) Hyperkalemia
- f) Give names of iron inhibitors.

Q.6) Answer the following: (5 Marks X 2 = 10)

- a) Describe the structure of liver
- b) Describe the structure and clinical consequence of ketone bodies.

Q.7) Explain the following: (5 Marks X 2 = 10)

- a) Explain the metabolism of RBC and pathways for RBC destruction.
- b) Define anemia. Discuss the Thalaessemia in detail.

Q.8) Write short notes on the following: (5 Marks X 2 = 10)

- a) Water balance
- b) Diabetes pathophysiology
