

**T. Y. B. Sc. (Biotechnology) SEM – V (CBCS - 2015 COURSE) :  
SUMMER - 2019**

**Subject: Clinical Biotechnology**

Day: Thursday  
Date: 04/04/2019

**S-2019-1385**

Time: 10.00 AM TO 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 'SAME' answer books.
- 5) Draw a labeled diagram WHEREVER necessary.

**SECTION - 01**

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

- a) Give names of any two biochemical tests and their clinical significance.
- b) Name the biological samples used in clinical diagnosis.
- c) Define anticoagulants. Give one example.
- d) Enlist the various tests in urine analysis.
- e) Define the enzyme activity.
- f) Name the various markers estimated in lipid profile test.

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

- a) Discuss the diseases associated with blood clotting.
- b) Describe the composition of blood.

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

- a) Differentiate between extrinsic and intrinsic pathway of blood clotting.
- b) Explain the types and structure of various lipoproteins

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

- a) Urine analysis
- b) Free and conjugated bilirubin

**SECTION - 02**

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

- a) Bilirubin is produced by which part of hemoglobin?
- b) Where is the gall bladder located in body?
- c) Define acidosis and alkalosis.
- d) Name the three ketone bodies.
- e) What is the role of antidiuretic hormone (ADH) in water balance?
- f) What is OGTT? What is its function?

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

- a) Explain jaundice of genetic origin.
- b) Describe the applications of radioisotopes in medicine.

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

- a) Define enzymes. Explain the diagnostic applications of enzymes.
- b) Discuss in detail the Prediabetes conditions.

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

- a) Insulin
- b) Atherosclerosis

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