

**T. Y. B. SC. (BIOTECHNOLOGY) SEM – V (CBCS - 2015  
COURSE) : WINTER - 2017  
SUBJECT: CLINICAL BIOTECHNOLOGY**

Day : Friday  
Date : 03/11/2017

**W-2017-0948**

Time : 02.00 PM TO 05.00 PM  
Max. Marks : 60

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**N.B.:**

- 1) **Q. 1 and Q. 5 are COMPULSORY.**
  - 2) Answer any **TWO** questions from **Q. 2, Q.3 and Q. 4** in Section - I and from **Q.6, Q.7 and Q. 8** in Section - II.
  - 3) Answers to both the sections should be written in **SEPARATE** answer books.
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**SECTION - I**

- Q. 1** Attempt any **FIVE** of the following: **(10)**
- a) Name the various biological samples used in clinical diagnosis.
  - b) What do you mean by Fatty Liver?
  - c) Define - Polycythemia and Thrombocytosis.
  - d) Enlist the various tests carried out for Urine analysis.
  - e) Mention any four complications of Diabetes Mellitus.
  - f) Explain the terms - Clinical biotechnology and Health.
- Q. 2** Answer the following: **(10)**
- a) Explain metabolism of RBCs in the body. Describe briefly - any two types of Jaundice.
  - b) Define Isoenzymes. Describe isoenzyme pattern in Lactate Dehydrogenase.
- Q. 3** Answer the following: **(10)**
- a) Explain the mechanism of blood clotting.
  - b) Discuss Lipid Profile testing and its clinical significance.
- Q. 4** Write short notes on the following: **(10)**
- a) Hemogram
  - b) Anticoagulants

**SECTION - II**

- Q. 5** Attempt the following questions **(10)**
- a) Define Anemia. Discuss Thalaessaemia and Iron Deficiency Anemia in detail.
  - b) Explain the use of Radioisotopes in medicine, with suitable examples.
- Q. 6** Answer the following: **(10)**
- a) Describe the structure of Hemoglobin and explain any one diagnostic method to estimate hemoglobin.
  - b) Discuss the Cholesterol metabolism.
- Q. 7** Write short notes. **(10)**
- a) Insulin
  - b) Coronary Artery Diseases.
- Q. 8** Answer the following: **(10)**
- a) Differentiate between Type I and type II Diabetes Mellitus.
  - b) Explain Sodium and Potassium balance in the body.

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