

**M. Sc. (Medical Biotechnology) Sem-I (Choice Based Credit System) :  
WINTER - 2018**

**SUBJECT : MEDICAL BIOCHEMISTRY**

Day : Monday  
Date : 22/10/2018

**W-2018-1290**

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

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**N.B.**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Answers to both the sections should be written in **SEPARATE** answer books.
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**SECTION – I**

- Q.1** Answer in brief **ANY FIVE:** (10)
- a) Mention four functions of cholesterol.
  - b) Describe the significance of hormone sensitive lipase.
  - c) What are the complications of Diabetes Mellitus?
  - d) What do you understand by methemoglobinemia?
  - e) Explain the importance of Serum Creatinine estimation.
  - f) Which enzymes are important in diagnosis of jaundice?
- Q.2** Answer **ANY TWO:** (10)
- a) What are the structural and functional differences between hemoglobin and myoglobin?
  - b) What are isoenzymes? Mention the applications of enzymes as therapeutic agents?
  - c) Describe the regulation of Blood Glucose level.
- Q.3** Explain in detail **ANY TWO:** (10)
- a) Urea cycle
  - b) Lipoproteins – their types, composition and function.
  - c) Oxidative stress- its clinical consequences

**SECTION – II**

- Q.4** Answer in brief **ANY TWO:** (10)
- a) Explain in brief the electrolyte balance in the body.
  - b) Describe the significance of any two B complex vitamins.
  - c) What are xenobiotics? Describe their detoxification.
- Q.5** Answer the following: (06)
- a) Discuss the metabolism of Tyrosine.
- OR**
- a) Explain the genetics and manifestations of Sickle cell anemia.
  - b) Describe the principle and applications of paper chromatography. (04)
- Q.6** Write notes on **ANY TWO:** (10)
- a) Discuss the functions of ceruloplasmin and albumin.
  - b) Radio isotopes in medicine
  - c) Ammonia toxicity

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