BACHELOR OF SCIENCE (LABORATORY SCIENCES) (CBCS - 2019 COURSE)
B.Sc. (Lab Sci) Sem-III : WINTER :- 2021
SUBJECT: CLINICAL BIOCHEMISTRY-I

Day : Wednesday | Time : 10:00 AM-12:00 PM
Date 16-02-2022 | **W-22559-2021** | Max. Marks: 60

N.B.

1) There are **THREE** section as
   Section A :- Objective Type questions : 20 marks
   Section B :- Long Answer Questions : 20 marks
   Section C :- Short Answer Questions : 20 marks
2) Section B has four long answer questions and **ANY TWO** questions have to be answered.
3) Section C has six short answer questions and **ANY FIVE** questions have to be answered.
4) Section B and C should be written in **SAME** answer sheet.

SECTION – B

Long answer questions (attempt ANY TWO) **(20)**

1) Describe process of glycolysis with its energetics.

2) Describe formation and fate of ammonia.

3) Describe the process of oxidation of palmitate with its energetics.

4) Define Quality Control. Write in detail an importance of control programme in clinical laboratory.

SECTION – C

Short answer questions (attempt ANY FOUR) **(20)**

1) Significance of HMP shunt.

2) Digestion and absorption of proteins.

3) Ketosis.

4) Automation.

5) Laboratory diagnostic tests for Diabetes Mellitus.

6) Principle and applications of electrophoresis.

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1) There are **THREE** section as
   Section A :- Objective Type questions : 20 marks
   Section B :- Long Answer Questions : 20 marks
   Section C :- Short Answer Questions : 20 marks
2) Section A is given on **SEPARATE** sheet and has to be answered on **SAME** sheet. This sheet should be completed within **first 20 minutes** of starting of the examination. The sheet with **section A** will be collected by Supervisor at the end of 20 minutes.
3) You have to make ☑ such kind of mark in the box of the appropriate answers.

Seat No. : _____

SECTION – A

M.CQ.'s **(20)**

Q.1 All of the following are metabolic products synthesized from tyrosine **EXCEPT**

- ☐ Melanin
- ☐ Thyroxine
- ☐ Epinephrine
- ☐ Melatonin

Q.2 The common oxidative pathway of metabolism is

- ☐ Tricarboxylic acid
- ☐ Glycolysis
- ☐ Glycogenesis
- ☐ HMP shunt

Q.3 All of the following are lipotropic factors **EXCEPT**

- ☐ Choline
- ☐ Inositol
- ☐ Betaine
- ☐ Cephalin

Q.4 The number of ATP molecule consumed in glycolysis is

- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 10

PTO

Q.5 The normal range of fasting blood sugar level in mg/dl is

- ☐ 50-70
- ☐ 70-90
- ☐ 70-100
- ☐ 110-130

Q.6 Acetyl CoA is the end product of which of the following type of fatty acid oxidation?

- ☐ β - oxidation
- ☐ α - oxidation
- ☐ ω - oxidation
- ☐ All of the above

Q.7 Which of the following is an enzyme required for digestion of lipid :

- ☐ Pepsin
- ☐ Pancreatic lipase
- ☐ Pancreatic amylase
- ☐ Lactase

Q.8 Cholesterol serves as a precursor for the synthesis of all the following **EXCEPT** :

- ☐ Lecithin
- ☐ Bile acids
- ☐ Vitamin D
- ☐ Steroid hormones

Q.9 The excretory end product of protein (Amino acid) metabolism in human body is

- ☐ Uric acid
- ☐ Ammonia
- ☐ Urea
- ☐ All of the above

Q.10 Accumulation of which of the following lipid causes fatty liver?

- ☐ Fatty acid
- ☐ Triacylglycerol
- ☐ Cholesterol
- ☐ All of the above

Total Marks obtained : _____ Signature of Invigilator

Signature of Examiner