Enrollment No: _____ Exam Seat No:_____

C.U.SHAH UNIVERSITY

Summer Examination-2018

Subject Name : Clinical Biochemistry

Subject Code : 2SC01CLB1 Branch: PGDMLT

Semester : 1 Date : 19/03/2018 Time : 02:30 To 05:30 Marks : 70

Instructions:

(1) Use of Programmable calculator & any other electronic instrument is prohibited.
(2) Instructions written on main answer book are strictly to be obeyed.
(3) Draw neat diagrams and figures (if necessary) at right places.
(4) Assume suitable data if needed.

Q-1. Complete the following sentences by choosing correct word given in the brackets: **1x14=14**

(a) Fructose is a _____ Sugar. (Aldo / Keto).

(b) _____ is an example of phospholipid. (Lecithin / Leucine)

(c) Tryptophan is an _____ amino acid. (Aromatic / Sulphur containing).

(d) One molecule of $FADH_2$ can produce _____ ATPs. (Two / Three).

(e) _____ Transport requires no energy. (Active / Passive)

(f) Conversion of pyruvate to lactate is catalyzed by _____ enzyme. (Lactate Dehydrogenase / Pyruvate Dehydrogenase)

(g) End product of protein catabolism is_____. (Urea / Ammonia)

(h) _____ RNA is required for transfer amino acids from cytoplasm to the ribosomal protein synthesizing machinery (Ribosomal / Transfer)

(i) Normal level of serum albumin is _____ gm/dL. (3.5 to 5.5 / 6 to 8)

(j) _____ Deficiency leads to scurvy. (Vitamin D / Vitamin C)

(k) Reducing sugars can be detected by _____ test. (Benedict's / Biuret)

(l) _____ are called powerhouse of the cell. (Mitochondria / Golgi Apparatus)

(m) Level of _____ enzyme is increased in myocardial infarction. (SGPT / SGOT)

(n) Zinc is required for the polymerization of _____. (Insulin / Glucagon)

Attempt any four from the following:-

Q-2. Attempt all the questions- **2x7=14**

(a) Classify carbohydrates & explain in brief about Disaccharides

(b) Explain Types & functions of Immunoglobulin

Q-3. Attempt all the questions - **2 x7=14**

(a) Classify lipids & explain in brief about Phospholipids

(b) Explain Principle, types & uses of Chromatography

Q-4. Write short notes on the following- **5+5+4=14**

(a) Structure of transfer RNA

(b) Types of Enzyme inhibition & its examples

(c) Nutritional importance of dietary fibers

Q-5. Write in brief on the following- **5+5+4=14**

(a) Deficiency disorders of Vitamin D

(b) Absorption, Storage & Biochemical Functions of Iron

(c) Enumerate thyroid function tests

Q-6. Explain the following- **2 X 7=14**

(a) Explain various steps of Citric acid cycle & it's energetic.

(b) Enumerate different types of Fatty acid oxidation. Explain steps of beta oxidation & it's energetic.

Q-7. Write short note on the following- **5 +5+4=14**

(a) Role of Automation in Clinical Biochemistry Laboratory

(b) Blood buffers

(c) Phenylketonuria

Q-8. Discuss the following- **2 X 7=14**

(a) Structure & function of Endoplasmic Reticulum & Golgi Apparatus

(b) Types, metabolic alterations & laboratory diagnostic tests of Diabetes Mellitus