

Enrollment No: _____

Exam Seat No: _____

C. U. SHAH UNIVERSITY

Summer Examination-2022

Subject Name: Clinical Biochemistry - Theory

Subject Code: 3SC01CLB1

Branch: PGDMLT

Semester: 1

Date: 29/04/2022

Time: 11:00 To 02:00

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.
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Q-1 Attempt the following questions:

(1x14=14)

- a) The number of hydrogen bonds between guanine & cytosine in DNA is _____. (one / three)
- b) Genetic code is _____. (degenerate / overlapping)
- c) Normal adult hemoglobin HbA consists of _____ chains. (2 α and 2 β / 2 β and 2 γ)
- d) _____ carries cholesterol from peripheral tissues to liver. (HDL / LDL)
- e) _____ is end product of anaerobic glycolysis. (lactate / Acetyl CoA)
- f) _____ is present in milk. (Sucrose / Lactose)
- g) _____ is end product of protein metabolism. (urea / uric acid)
- h) The tumor marker Acid Phosphatase is increased in _____. (Prostate cancer / ovarian cancer)
- i) _____ is antihemorrhagic vitamin. (Vitamin A / Vitamin K)
- j) _____ is stop codon. (UAG / UAC)
- k) _____ is the earliest serum enzyme to rise after myocardial infarction. (CK-MB / SGOT)
- l) _____ hormone have hyperglycemic effect. (Insulin / Glucagon)
- m) Person with sickle cell trait has increased resistance to _____. (malaria / cancer)
- n) _____ coenzyme is involved in electron transport chain. (NAD / TPP)



Attempt any four questions from Q-2 to Q-8

- Q-2 Write short notes on: (2x7=14)
a) Reactive Oxygen Species (ROS)
b) Tumor Markers
- Q-3 Write short notes on: (2x7=14)
a) Electrophoresis
b) Classification of Lipoproteins
- Q-4 Attempt all questions. (2x7=14)
a) Explain Structure, types and functions of RNA
b) Describe Enzyme Inhibition
- Q-5 Attempt all questions. (5+5+4=14)
a) Explain Biological functions of proteins
b) Write a short note on Glycemic Index
c) Describe in details about accuracy and precision
- Q-6 Attempt all questions. (2x7=14)
a) Write in detail Digestion and absorption of carbohydrates and lipids
b) Explain TCA Cycle and its importance
- Q-7 Attempt all questions. (5+5+4=14)
a) Describe Fructose metabolism and its significance
b) Define carbohydrates. Describe classification of carbohydrates
c) List Biochemical functions of potassium
- Q-8 Attempt all questions. (5+5+4=14)
a) Explain Respiratory Buffer System
b) Describe Renal Function Tests
c) State Functions of vitamin A

