

Enrollment No: _____

Exam Seat No: _____

C.U.SHAH UNIVERSITY

Summer Examination-2019

Subject Name : Biochemistry

Subject Code : 4SC02BIC1

Branch: B.Sc. (Microbiology)

Semester: 2

Date: 02/05/2019

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 Attempt the following questions: (14)

- | | |
|---|----|
| a) Give the name of energy rich compounds (Any three) | 01 |
| b) Write down the first law of thermodynamics | 01 |
| c) Define: Entropy | 01 |
| d) Write down the Families of monosaccharides | 01 |
| e) Define: Reducing sugar | 01 |
| f) Define: Stereo isomerism | 01 |
| g) Difference between saturated and unsaturated fatty acids | 01 |
| h) What are cerebrosides and gangliosides? | 01 |
| i) Write down the name of aeromatic amino acids | 01 |
| j) Functions of proteins (any three) | 01 |
| k) Define : enzyme unit | 01 |
| l) What is Apoenzyme? | 01 |
| m) Write down the source of Vitamin B12 | 01 |
| n) Write down the name of fat soluble vitamins | 01 |

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

Q-2 Attempt all questions (14)

- | | |
|--|----|
| a) Discuss: Definitions of Gibb's Free Energy, enthalpy and Entropy and mathematical relationship among them | 07 |
| b) Write down in detail: Structural Polysaccharides (with any one example) | 07 |

Q-3 Attempt all questions (14)

- | | |
|---|----|
| a) What are Energy rich compounds? Prepare a detail note on any two Energy rich compounds | 07 |
| b) Describe: storage polysaccharides (with any one example) | 07 |



Q-4	Attempt all questions	(14)
a)	Write down in detail: amphipathic nature of lipid, lipid micelles, monolayers, bilayers	07
b)	Briefly explain: Human haemoglobin structure	07
Q-5	Attempt all questions	(14)
a)	Write a short note on: Secondary and tertiary structure of proteins	07
b)	Discuss: Mechanism of enzyme inhibition (any two)	07
Q-6	Attempt all questions	(14)
a)	Discuss: Water soluble vitamins	07
b)	Briefly explain: M-M equation	07
Q-7	Attempt all questions	(14)
a)	Prepare a detail note on: Fat soluble vitamins (Any three)	07
b)	Write down briefly: Essential fatty acids	07
Q-8	Attempt all questions	(14)
a)	Effect of pH and temperature on enzyme activity	07
b)	Write down in detail: Disaccharides	07

