

Enrollment No:-_____

Exam Seat No:-_____

C.U.SHAH UNIVERSITY

Summer-2015

Subject Code: 4LS01BIT1 Subject Name: Fundamentals of Biotechnology

Course Name: B.Sc. (Biotech)

Date: 8/5/2015

Semester: I

Marks: 70

Time: 10:30 TO 01:30

Instructions:

- 1) Attempt all Questions of both sections in same answer book/Supplementary.
- 2) Use of Programmable calculator & any other electronic instrument prohibited.
- 3) Instructions written on main answer book are strictly to be obeyed.
- 4) Draw neat diagrams & figures (if necessary) at right places.
- 5) Assume suitable & perfect data if needed.

SECTION-I

Q-1.

- | | |
|--|---|
| a) Who gave the cell theory ? | 2 |
| b) What is PCR? Which main enzyme is used in PCR? | 2 |
| c) What is Peptide bond? How many peptide bonds will be present in a chain of ten amino acids? | 2 |
| d) Write full form of TEM. | 1 |

Q-2. Explain the following with suitable diagram.

- | | |
|--|---|
| a) Structure and function of Transmission Electron Microscope. | 5 |
| b) Prokaryotic cell | 5 |
| c) Lipid bi layer | 4 |

OR

Q-2. Attempt the following.

- | | |
|--|---|
| a) Write a short note on Enzymes | 5 |
| b) Write a short note on Chemical Methods of Sterilization | 5 |
| c) Write the names of any five instruments required in biotech laboratory. | 4 |

Q-3. Write the structure and functions of-

- | | |
|------------------|---|
| a) Phospholipids | 7 |
| b) DNA | 7 |

OR

Q-3. Write notes on-

- | | |
|------------------------------------|---|
| a) Classification of biotechnology | 7 |
| b) Enzyme Inhibition | 7 |



SECTION-II

- Q-4. Define the following terms- 7
- a) Histone
 - b) B-DNA
 - c) Transcription
 - d) Translation
 - e) RNA
 - f) Co-enzyme
 - g) Tm
- Q-5. 5
- a. Briefly describe the functions of lipids. 5
 - b. Explain the structure and function of Compound Microscope. 5
 - c. Write the differences between A,B and Z-DNA 4
- OR**
- Q-5. Write notes on
- a. Polysaccharides 5
 - b. Biologically important proteins 5
 - c. Isozymes 4
- Q-6. Explain the following-
- a. Denaturation and renaturation of DNA 7
 - b. Factors affecting the enzyme activity 7
- OR**
- Q-6. Write notes on-
- a. Properties of good antimicrobial agents 7
 - b. Polysaccharides 7

