

Bachelor of Pharmacy (B.Pharm) First Semester
BP 103 - Pharmaceutical Biochemistry-I

P. Pages : 1

Time : Three Hours



GUG/W/18/1149

Max. Marks : 80

- Notes :
1. Q. No. 1 is compulsory and solve **any four** from Remaining.
 2. All questions carry equal marks.
 3. Diagrams and Chemical equation should be given wherever necessary.

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| 1. | Write a short notes on any four . | 16 |
| | <ol style="list-style-type: none">a) Prokaryotes and Eukaryotes.b) Enzymes and coenzymes.c) Fats and oilsd) Water soluble and fat soluble vitamins.e) Ribosomes and Endoplasmic reticulum. | |
| 2. | a) Define and classify the carbohydrate. Write in brief about the biological role played by carbohydrates. | 8 |
| | b) What are proteins? Differentiate between essential and non-essential amino acids. Explain the buffer action of proteins. | 8 |
| 3. | a) Explain the role of biochemistry in medical science. | 8 |
| | b) How enzyme catalyzes the biochemical reaction? Explain lock and key model of enzyme action. | 8 |
| 4. | a) What is BMR? Explain its applications in nutrition and metabolism. | 8 |
| | b) What is balanced diet and its principle nutrients? Write a brief note on any two nutritional diseases. | 8 |
| 5. | a) Define and classify enzymes with suitable examples. Explain clinical applications of enzymes in diagnosis. | 8 |
| | b) Explain enzyme inhibition. Discuss in brief different enzyme inhibitions of therapeutic importance. | 8 |
| 6. | a) Explain the biological oxidation of NADH and FADH ₂ . Discuss in detail ATP formation during oxidation. | 8 |
| | b) What are the components of respiratory chain? Explain their role considering the redox potential of each components. | 8 |
| 7. | a) Discuss with suitable examples the role of vitamins and metals as coenzymes. | 8 |
| | b) Explain the B-complex vitamins. Explain the biochemical role and deficiency disease of vit. C. | 8 |
