

**School of Medical and Allied Sciences**

**Bachelor of Pharmacy  
Semester End Examination - Jun 2024**

**Duration : 180 Minutes  
Max Marks : 75**

**Sem II - BP203T - BPHT2003 - Biochemistry***General Instructions**Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

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|-----|--|-------|
| 1)  | Illustrate in brief functions of phospholipids.                                      | K2(2) |
| 2)  | Illustrate briefly about albinism  | K2(2) |
| 3)  | Define glycogen storage diseases.  | K1(2) |
| 4)  | Illustrate briefly about amino acids   | K2(2) |
| 5)  | Define exothermic and endothermic reaction   | K1(2) |
| 6)  | Illustrate hyperbilirubinemia?   | K2(2) |
| 7)  | Define the number of ATP formed from one GDP   | K1(2) |
| 8)  | Illustrate the term Transamination? Give example.                                    | K2(2) |
| 9)  | Define Inhibitors and uncouplers.  | K1(2) |
| 10) | Define the following term a) Enthalpy b) Entropy                                     | K1(2) |
| 11) | Develop the mechanism of the electron transport chain (ETC) in cellular respiration. | K3(5) |

**OR**

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|-----|--|-------|
|     | Develop substrate-level phosphorylation and its significance in cellular energy metabolism.        | K3(5) |
| 12) | Develop the relation between energy-rich compounds, cyclic AMP, and their biological significance. | K3(5) |
| 13) | Analyse the de novo synthesis of fatty acids, focusing on Palmitic acid.                           | K4(5) |
| 14) | Develop the relationship between free energy, enthalpy, and entropy.                               | K3(5) |
| 15) | Analyse the structure of DNA and RNA.  | K4(5) |
| 16) | Simplify the functions of DNA and RNA.   | K4(5) |

**OR**

- Simplify the catabolism of heme K4(5)
- 17) Analyze the role of the microbiome in human physiology and disease. K4(5)
- 18) Elaborate the regulation of enzymes, including repression. K6(10)
- 19) Explain free energy and discuss its relationship with endergonic K5(10)

**OR**

Explain enzyme inhibitors and provide examples of each type. K5(10)