**Roll No. .....** 

Total No. of Questions: 10]

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# B.Pharmacy (Sem.-5<sup>th</sup>) PHARMACEUTICAL CHEMISTRY - V (Biochemistry)

**SUBJECT CODE: PHM-3.5.1** 

Paper ID : [D0122]

[Note: Please fill subject code and paper ID on OMR]

Time: 03 Hours Maximum Marks: 80

## **Instruction to Candidates:**

- 1) Section A is Compulsory.
- 2) Attempt any Four questions from Section B.
- 3) Attempt any Three questions from Section C.

#### Section - A

*Q1)* 

 $(15 \times 2 = 30)$ 

- a) What are high energy compounds?
- b) What is Galactosemia?
- c) What are the abnormal constituents present in urine?
- d) What are sphingolipids?
- e) What are transamination reactions?
- f) What is the significance of HMP pathway?
- g) Define co-factor and apoenzymes.
- h) Name any two sulphur containing amino acids.
- i) Name two inhibitors in protein synthesis.
- j) Define nucleoside and nucleotide.
- k) What is PCR?
- 1) Metabolic disorder of urea cycle.
- m) What is glyoxalic acid cycle?
- n) What is the significance of Km in enzymatic reactions?
- o) What are eicosanoids?

## Section - B

 $(4 \times 5 = 20)$ 

- Q2) Describe biosynthesis of purine bases.
- Q3) Describe urea cycle, with significance.
- Q4) What are ketone bodies? How they are metabolized?
- Q5) Explain the chemistry of D.N.A.
- **Q6)** Explain the biosynthesis of lipids.

# Section - C

 $(3 \times 10 = 30)$ 

- Q7) Describe complete oxidation of glucose, with energy diagram.
- Q8) Write a note on
  - (a)  $\beta$  oxidation of fatty acids
  - (b) Biosynthesis of cholesterol.
- **Q9)** Write a note on:
  - (a) Mechanism of oxidative phosphorylation.
  - (b) Protein biosynthesis.
- Q10) Derive Michaelis Menton equation.

