Printed pages: 01 Sub Code: BOP 241

Paper Id: 150401 Roll No: | | | | | | | | | | |

B PHARM

(SEM IV) THEORY EXAMINATION 2017-18

PHARMACEUTICAL CHEMISTRY-IV

(MOLECULAR BIOLOGY AND BIOCHEMISTRY)

Time: 3 Hours *Total Marks: 100*

Note: Attempt all the Sections. Assume missing data suitably, if any.

SECTION A

1. Attempt *all* questions in brief. **2 x10 = 20**

a) What is nucleotide?
b) Brief about translation and transcription.
c) Define membrane lipid or glycans.
d) Write about conjugated protein.
e) Define essential amino acidwith example.
f) Differentiate glycolysis and gluconeogenesis.
g) Write in brief about cell cycle.
h) Define enzyme inhibition.
i) What is transamination?
j) What is of oxidative pliospliorylation?

SECTION B

2. Attempt any *three* of the following: **10 x 3 = 30**

a) Discuss the kinetics of enzyme or derive Michaelis-Menton Equation.
b) Write a note on protein conformation and cell signaliug.
c) What is gene regulation? Describe Lac Operon Model.
d) Give a note on DNA repair mechanism.
e) What are ketone bodies? Discuss its utilization.

SECTION C

3. Attempt any *two* parts of the following: **5 x 2 = 10**

a) What is enzyme? Discuss the effect of pH and temperature on enzyme.
b) Discuss the synthesis of amino acid specialized product to Epinephrine and GABA.
c) Write the biosynthesis of glutamine & glycine.

4. Attempt any *one* part of the following: **10 x 1 = 10**

a) What is macromolecule? Explain covalent bonding in macromolecules.
b) Describe the reactions in the synthesis of urea.

5. Attempt any *one* part of the following: **10 x 1 = 10**

a) Give the description of biological membrane with their composition & function.
b) Discuss salvage pathway for purine and pyrimidine biosynthesis.

6. Attempt any *one* part of the following: **10 x 1 = 10**

a) What is respiratory chain? Discuss the mechainsm of oxidative phosphorylation.
b) Write about components of protein synthesis along with Discuss the inhibitors.

7. Attempt any *one* part of the following: **10 x 1 = 10**

a) Discuss the steps involve in biosynthesis of cholesterol.
b) Write a note on classification & nomenclature of enzyme.

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