

III B. Pharmacy I Semester Supplementary Examinations, May - 2019
PHARMACEUTICAL BIOCHEMISTRY

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is Compulsory
3. Answer any **THREE** Questions from **Part-B**
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PART -A

1. a) Write in brief on the role of biochemistry in pharmaceutical sciences. (3M)
- b) Write the role of hormones on glucose metabolism. (4M)
- c) What are poly-unsaturated fatty acids? Write their biochemical significance. (4M)
- d) Write a note on regulation of protein synthesis. (3M)
- e) Write short notes on co-enzymes present in oxidoreductase enzymes. (4M)
- f) Write the biochemical role of sodium and calcium. (4M)

PART -B

2. a) With a neat sketch explain the chemical constitution of cell membrane. (8M)
- b) Write short notes on carrier mediated transport and ion-channels in cell membrane. (8M)
3. a) Explain various steps involved in HMP-Shunt and its significance. (10M)
- b) What is glycogen? Write in brief on its formation. (6M)
4. a) Explain the biochemistry of fatty acid biosynthesis. (10M)
- b) What are VLDL, LDL and HDL? Explain how these are linked to atherosclerosis. (6M)
5. a) With a neat Sketch, explain urea cycle. (8M)
- b) Write the metabolism of phenylalanine and explain the biochemical significance of its metabolites. (8M)
6. a) Explain the biosynthesis and regulation of ATP synthesis via ETC. (10M)
- b) Discuss the role of temperature and pH on enzyme activity. (6M)
7. a) With a neat sketch explain cell cycle and its significance. Add a note on cell cycle regulators. (10M)
- b) Write short notes on biochemical role of vitamin A and folic acid. (6M)