

BACHELOR OF PHARMACY EXAMINATION 2018

2nd year 2nd Semester

Applied Biochemistry-1

Time -3hours

Full Marks-100

Group- A

Use separate answer scripts for each Group/answer any five questions

atleast *one* question from this group.

1. Represent transport mechanism of fatty acids from cytosol to matrix to matrix and beta-oxidation of fatty acids . 10+10=20
2. Describe the structure and function of biological membranes. 20
3. Write short note on 4x5=20
 - i) Terpenoids and Steroids
 - ii) Structurally diverse fatty acids
 - iii) Glycolipids and Sulpholipid
 - iv) Classification of lipids based on backbone structure.

Group-B

4. Explain TCA cycle was open cycle. Describe the details pathway of Keb's cycle. Write a short note on Pyruvate dehydrogenase complex. Name the journal published on TCA cycle 4+10+5+1=20
5. What is the significance of 1, 3 bisphosphoglycerate in Rapaport Leubering cycle? Describe the details pathway of Glucoseogenesis. How to regulate the Glycolysis? 3+12+5=20
6. Write a short on optical isomer and D/L configuration of Glucose. Write the metabolism of lactose. What are metabolic disorders of Galactose metabolism? 5X4=20
7. Define HMP shunt. Why it is called shunt? Describe the details pathway of pentose phosphate pathway. What is significance of this pathway? 2+2+10+6

Subject: Applied Biochemistry-I
Class: BPharm-2nd Year-2nd Semester-2018

GROUP - C

Questions:

8 **5 marks each**

- 1) Define immunogen? Give at least 2 examples of antigen.
- 2) What is antigenic determinant? Is there any difference between antigenic determinant and epitope?
- 3) What is reporter gene? What is its importance during homologous recombination?
- 4) What is Chiasma formation? What is its significance for meiosis?

9 **10 marks each**

- 1) What is gene alignment during homologous recombination? What is the importance of gene alignment during homologous recombination?
- 2) What is foreignness of an antigen? How does the foreignness of an antigen play a role in the development of immune-responses?

10 **20 Marks each**

- 1) What is the adjuvant? What is difference between complete and incomplete Freund's adjuvant? How can you raise antibody against hapten. Provide the details of the experiment to raise antibody against hapten.