

Exam.Code:0004

Sub. Code: 0360

2071

B.A./B.Sc. (General) Fourth Semester

Bio-Chemistry

Paper – B: Membrane Biochemistry

Time allowed: 3 Hours

Max. Marks: 45

*NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.*

*x-x-x*

I. Attempt the following:-

- a) Sphingolipids.
- b) Glycophorin A.
- c) Membrane Gate?
- d) Write name of two techniques used in membrane movement.
- e) Flip-flop movement.
- f) Write function of coated vesicles.
- g) Application of liposomes.
- h) Give two functions of membrane.
- i) Lipid proteins.

(9x1)

#### UNIT - I

II. a) Write the Singer-Nicholson model of a membrane composition.

b) Write the merit and demerits of fluid and mosaic model. (5,4)

III. a) Write a short note on mammalian membrane.

b) Describe in brief about Structure of RBC membrane. (4,5)

#### UNIT - II

IV. a) What do you mean by membrane fluidity? Write the advantage of fluidity.

b) Write short notes on carrier mediated active transport. (5,4)

V. a) Explain role of physical properties of lipids in membrane structure.

b) Describe in brief the role of Na, K- ATPase in membrane. (4,5)

P.T.O.

(2)

**UNIT - III**

- VI. a) Describe about the various criteria of membrane purity?  
b) Mentioned about the characterization of cell membrane. (5,4)
- VII. a) What is the liposomes? Write about the different application of liposomes.  
b) Describe in brief about the unilamellar membrane. (5,4)

**UNIT - IV**

- VIII. a) What is signal hypothesis? How the proteins are transport into membrane?  
b) How the regulation and coordination of membrane component synthesis are achieved in biological systems. (5,4)
- IX. a) Write a short note on coated vesicles.  
b) What is the disorders of membrane lipids? (4,5)

x-x-x