

**ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE -27**  
**MID SEMESTER TEST – AUGUST 2016**  
**M.Sc. MICROBIOLOGY – I SEMESTER**  
**MB 7216: CELL BIOLOGY**

Time: 1 1/2 hours

Max. Marks: 35

**I. Answer any FIVE of the following.**

5x2=10

1. Give two examples of calcium dependent proteins.
2. What is a ganglioside?
3. Match the column A with B

1. Ankyrin	a. Vesicular transport
2. Proteasomes	b. – end directed movement on microtubules
3. Porin channel	c. degradation of H <sub>2</sub> O <sub>2</sub>
4. Dynamin	d. H <sub>2</sub> O molecules
	e. degradation of proteins
	f. Sugar molecules
	g. RBC

4. What are sorting signals?
5. Give 4 points of differences between prokaryotic and eukaryotic cells.
6. What is the contribution of the scientists Gorter and Grendel?
7. Describe movement of cilia.

**II. Answer any TWO of the following:**

2x5=10

8. Describe various methods of modification of a membrane.
9. Explain characteristic features of microtubules and their functions.
10. What is an ATPase transport pump? Describe giving one detailed example.

**III. Answer any ONE of the following:**

1x10=10

11. Describe extracellular matrix and its components in detail with appropriate diagrams.
12. How do bacterial cells adhere to their host cells? Explain the mechanism in detail.

**IV. Answer the following:**

1x5=05

13. A nerve cell is injected with antibodies to MAPs.
  - a) As a result, what is likely to happen inside the cell according to you? (02)
  - b) Describe 3 more proteins which perform similar functions as the MAPs (03)