

BML700 Introduction to Basic Medical Sciences for Engineers
Minor I (IInd Semester 2014-2015)

Time : 1 hour

Max Marks : 20

Answer each question on a separate page

Answer all parts of a question in one place

- ✓ Q1. Explain the relationship between structure and function of Endoplasmic reticulum 4
Mitochondria → power house of the cell
- ✓ Q2 Describe the molecular organization of the plasma membrane 4
- ✓ Q3 How does the structure of the intestinal epithelium support its job ? 2
- X Q4 Explain the basis of action of the medicinal drug *digitalis* 2
- Q5. What is the role of extracellular matrix in tissue regeneration ? 3
- ✓ Q6. What functions are carried out by the cell during the interphase ? 2
- ✓ Q7. What is the cause of secondary adrenal insufficiency ? 3

Q2 plasma membrane = ~~associated~~ bi-layer (lipid + prot) with glucose complex at the surface.
selectively permeable along concentration & electrical gradients
ions channels.

Q5 ECM → always remodelling & put new cells in the right order

Q6 interphase = $G_1 + S + G_2$

G_1 growth of the cell & prepartⁿ of DNA duplicatⁿ

S DNA duplicatⁿ

G_2 more growth & prepartⁿ of cell not required during the mitosis.

Q7 Cushing's disease