

End Semester Examinations - 2015-16 Even Semester - May 2016

14BT2004 Cell Biology

Set B

Time : 3 hrs
Total Marks: 100

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1. Describe the chemical composition and various models of plasma membrane with neat sketch. (20 Marks)
 - OR**
 2. Name the phases of cell cycle and its major features of each phase and molecules that control cell cycle. (20 Marks)
 3. Define active transport? Describe in detail about the small and large molecules are transport through plasma membrane (20 Marks)
 - OR**
 4. How ATPase powered pumps involved for the transport of small and large molecules from cytoplasm? (20 Marks)
 5. a) Give a note on three modes of cell signaling with neat sketch (6 Marks)
b) Draw and write the mode of action of oestrogen in gene expression (5 Marks)
c) What are ecosinoids and how ecosinoids are synthesized and its mode of action in cell signaling (9 Marks)
 - OR**
 6. Elaborate about the membrane bound receptor for cell signaling (20 Marks)
 7. Illustrate with neat sketch of G-protein activates cAMP dependant protein kinase for gene expression (20 Marks)
 - OR**
 8. a) How PIP₂ is cleaved into two end products and write the regulation of FOXO for gene expression (8 Marks)
b) Write about the phosphorylation of Akt pathways induce gene expression (7 Marks)
c) Draw the neat sketch of activation of Ca⁺ - calmodulin dependent protein kinase (5 Marks)
 9. Define extracellular matrix and give a detailed notes on cytoskeleton protein for cell structure and cell movement (20 Marks)
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Wishing you All the Best
