Ahmedabad University

School of Arts and Sciences

BIO220 Cell Biology

IMS
End Term Examination 2024 (Winer Semester)

Total Marks = 30 (2*15) **Time: 2 hrs**

Date: 21/04/2024
No. of printed pages: 2

Answer All

Question 1: What is the functional role of phosphorylation and ubiquitination along with the names of enzymes responsible for these modifications?

Question 2: Explain the role of extracellular matrix and its components?

Question 3: What is the importance of the process of glycosylation and where does this process happen in a cell?

Question 4: Which is the secondary messenger attached to the cell membrane and its functions.

Question 5: Name a non-membranous organelle and give its function.

Question 6: What is TOR pathway used for and is active by ……..?

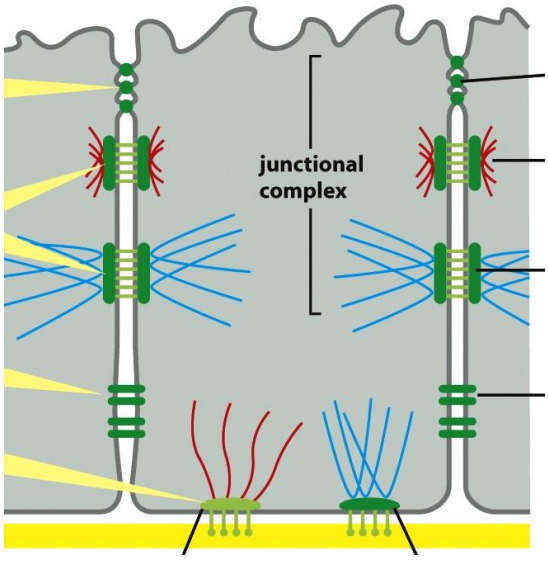
Question 7: what are the common and different steps in GPCR and TK signaling?

Question 8: What is the functional role of P53 and P21 in cancer?

Question 9: Name two similarities and two differences between the cellular processes of importing protein into the ER and importing protein to the nucleus.

Question 10: What is a contractile ring? What is it made up of?

Question 11: Label the following diagram and name the junction that divides the plasma membrane into an apical and baso-lateral domain.



Question 12: Explain the steps involved in transporting a protein X from Golgi to plasma membrane and an ER resident protein Y from Golgi to ER.

Question 13: Which proteins are involved in taking the cargo from the center of a cell to its periphery and from periphery to its center. What are these proteins called and their functions?

Question 14: Is the composition of cell membranes a constant factor or a variable? Why?

Question 15: Role of mitochondrial membrane in importing the proteins from outside.