Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: 2021/ F.Y B-Tech	**School of Technology**	**Department: F.Y B-Tech**
Course Code: FYT 116	**Course Title: Biology for Engineers**	**Semester : I**
Day and Date: Tuesday,11.05.2021	**End Semester Examination**	**Time:: 2 Hrs. Max Marks:50**

Instructions: 1) All Questions are compulsory.

2) Draw neat labeled diagrams wherever necessary

		Marks	Bloom's Level	CO
Q.1	**Answer/Solve the following (Any Two)**			
a)	Define Metabolism. Write down the properties and functions of a living cell in accordance to a metabolically functional cell.	8	L1	CO1
b)	Using a neat labeled diagram, explain the Scanning electron microscope. Also, state as to why the entire assembly is placed into a vacuum chamber?	8	L2	CO1
c)	Define Cell communication? Describe the various mechanisms of cellular communication.	8	L2	CO1
Q.2	**Answer/Solve the following (Any Two)**			
a)	What are Stem cells?State the types of stem cells based on its regenerative property.	8	L1	CO2
b)	How does the DNA play a vital role in keepingthe immune system intact? Logically explain.	8	L2	CO2
c)	Explain the theory of natural selection.	8	L3	CO3
Q.3	**Answer/Solve the following (Any Two)**			
a)	Define reflex. Draw and explain the working of reflex arc in human beings.	9	L2	CO2
b)	Interpret the functions of nerve membrane in correlation to electric and chemical synapse. Also mention how the membrane acts like an insulator.	9	L3	CO3
c)	What are Neurotransmitters? Draw comparisons between excitatory and inhibitory neurotransmitters with respect to their composition, location and functions.	9	L4	CO4