



**B.Tech - Odd Sem : End Semester Exam**  
**Academic Year:2020-2021**  
**17BT1001 - Biology for Engineers**  
**Set No: 3**

<b>Time:</b>		<b>Max.Marks: 100</b>					
S.NO	Answer All Questions	Choice	Options	Marks	CO	CO BTL	COI BTL
1.	Describe the differences between plant and animal cell	choice Q-2		10Marks	CO1	2	1
2.	Elucidate the structure and functions of nucleus of a cell			10Marks	CO1	2	1
3.	Answer 3A & 3B	choice Q-4		15Marks	CO1	2	2
3.A.	Write the structure of plasma membrane			7Marks	CO1	2	2
3.B.	Briefly explain the components of a bacterial cell			8Marks	CO1	2	2
4.	Answer 4A & 4B			15Marks	CO1	2	2
4.A.	Compare prokaryotes and eukaryotes			7Marks	CO1	2	2
4.B.	Write notes on the working principle of microscope			8Marks	CO1	2	2
5.	Discuss the nerve impulse transmission across neurons	choice Q-6		10Marks	CO2	2	1
6.	Discuss in detail the male and female reproductive system in humans			10Marks	CO2	2	1
7.	Answer 7A & 7B	choice Q-8		15Marks	CO2	2	2
7.A.	Differentiate active and passive immunity			7Marks	CO2	2	2
7.B.	Write a detail note on the respiratory system			8Marks	CO2	2	2
8.	Answer 8A & 8B			15Marks	CO2	2	2
8.A.	Write the various components of blood			7Marks	CO2	2	2
8.B.	Discuss the importance of kidneys			8Marks	CO2	2	2
9.	Discuss digestion and absorption of carbohydrates in human body and add a note on glycemic index.	choice Q-10		10Marks	CO3	2	1
10.	Discuss the classification and functions of proteins			10Marks	CO3	2	1
11.	Answer 11A & 11B	choice Q-12		15Marks	CO3	2	2
11.A.	Discuss the water soluble vitamins and the disorders associated with their deficiency			7Marks	CO3	2	2
11.B.	Write the sources of Lipids and their importance in body function			8Marks	CO3	2	2
12.	Answer 12A & 12B			15Marks	CO3	2	2
12.A.	Discuss on protein rich foods			7Marks	CO3	2	2
12.B.	Elaborate the role of Iron, calcium and sodium in human metabolism			8Marks	CO3	2	2
13.	Discuss the principle and applications of Biochips	choice Q-14		10Marks	CO4	2	1
14.	Discuss the beneficial and harmful effects of fungi			10Marks	CO4	2	1
15.	Answer 15A & 15B	choice Q-16		15Marks	CO4	2	2
15.A.	Discuss the fermentation products			7Marks	CO4	2	2
15.B.	Compare and contrast the beneficial and harmful effects of microorganisms			8Marks	CO4	2	2
16.	Answer 16A & 16B			15Marks	CO4	2	2
16.A.	Write on the production of an essential component by fermentation process			7Marks	CO4	2	2
16.B.	Write on the human viral diseases			8Marks	CO4	2	2

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