

Name. _____		Printed Pages:01		
Student Admn. No.: _____				
<b>School of Biomedical Sciences</b> <b>Summer Term Examination – July - August 2024</b> <b>[Programme: B.Sc. Medical Biotechnology ] [Semester: VI] [Batch: 2021-2024 ]</b>				
<b>Course Title: Medical Biomaterials</b>		<b>Max Marks: 100</b>		
<b>Course Code: Q1UG601T</b>		<b>Time: 3 Hrs.</b>		
<b>Instructions:</b>	1. All questions are compulsory. 2. Assume missing data suitably, if any.			
		K Level	COs	Marks
<b>SECTION-A (15 Marks)</b>		<b>5 Marks each</b>		
1.	What is the difference between Biomaterial & Biological Materials?	<b>K2</b>	CO1	5
2.	Define the elastic deformation and plastic deformation.	<b>K1</b>	CO2	5
3.	Summaries the Biomaterials-Tissue Interactions.	<b>K2</b>	CO3	5
<b>SECTION-B (40 Marks)</b>		<b>10 Marks each</b>		
4.	Discuss the permanent and transient implants.	<b>K2</b>	CO1	10
5.	Elaborate the different types of Screws used for fixation of bone fragments.	<b>K3</b>	CO3	10
6.	Apply the examples of requirements for a Bone Plate implant success.	<b>K3</b>	CO4	10
7.	Elaborate on foreign body giant cells (FBGCs).	<b>K4</b>	CO4	10
<b>SECTION-C (45 Marks)</b>		<b>15 Marks each</b>		
8.	Illustrate the Host reactions to biomaterials including Biomaterial-tissue interaction, systemic interactions and device associated complications.	<b>K4</b>	CO1	15
9.	Interpret the Fluorocarbon Polymers, Fibrous and Particulate Composites in Orthopedic Implants.	<b>K5</b>	CO2	15
10	Create an outline to use the flow perfusion bioreactor and hydrostatic pressure bioreactor.	<b>K6</b>	CO5	15