

Name. _____		Printed Pages:01		
Student Admn. No.: _____				
School of Basic sciences Summer Term Examination – July - August 2024 [Programme: B.Tech] [Semester:I] [Batch]				
Course Title: Chemical and Biological Materials (CBM) Course Code: C1UB129T		Max Marks: 100 Time: 3 Hrs.		
Instructions:	1. All questions are compulsory. 2. Assume missing data suitably, if any.			
		K Level	COs	Marks
SECTION-A (15 Marks)		5 Marks each		
1.	Define biomaterials and state some examples of biomaterials?	KL2	1	5
2.	What are the liquid crystals? Give its two main types?	KL2	2	5
3.	Define nanocomposites with some examples?	KL2	1	5
SECTION-B (40 Marks)		10 Marks each		
4.	Justify the application of liquid crystals for LCDs?	KL3	3	10
5.	Compare between metallic and polymeric biomaterials with suitable examples?	KL4	2	10
6.	Discuss the synthesis of nanocomposites using (a) sol-gel synthesis (b) thermal spray synthesis?	KL4	3	10
7.	Explain four types of gas sensors?	KL4	2	10
SECTION-C (45 Marks)		15 Marks each		
8.	Discuss the types of biofuels and their various applications?	KL4	4	15
9.	Explain the working of liquid crystals in spatial light modulators (SLM)?	KL5	3	15
10	Elaborate the applications of chemical sensors in various wearable devices. ?	KL5	4	15