SHRI RAMSWAROOP MEMORIAL UNIVERSITY

End Semester Examination (2021-22)-Odd Semester

Diploma (BM) – III Year (V Sem)				
Course Name: Biomedical Signal Processing	Code: DBT5003			
Time: 02 Hours	Max Marks: 60			

University Roll No.															
(To be filled by the Student)															

Note: Please read instructions carefully:

a) The question paper has 03 sections and it is compulsory to attempt all sections.

b) All questions of Section A are compulsory; questions in Section B and C contain choice.

	tion A: Very Short Answer Type Questions Impt all the questions.	BL	CLO	Marks (10)
1.	What is bit reversal in FFT?	BL1	CLO1	02
2.	What is the need of FFT?	BL1	CLO1	02
3.	Label characteristic of QRS complex.	BL1	CLO3	02
4.	List the bio-signal classification criteria.	BL1	CLO4	02
5.	Compare agonists and antagonists.	BL2	CLO3	02
	tion B: Short Answer Type Questions mpt any 03 out of 06 questions.	BL	CLO	Marks (30)
1.	Calculate the convolution of the following sequence- x(n) = (1, 2, -1, 1), h(n) = (1, 0, 1, 1)	BL3	CLO1	10
2.	Discuss the different types of filters based on frequency response.	BL2	CLO1	10
3.	Explain the signal averaging with the help of example.	BL2	CLO2	10
4.	What is action potential? Explain its step.	BL2	CLO3	10
5.	Explain the evoked potentials in detail.	BL2	CLO3	10
6.	Explain the impulse conduction of ECG.	BL2	CLO3	10
	tion C: Long Answer Type Questions mpt 01 out of 04 questions.	BL	CLO	Marks (20)
1.	Evaluate the DFT of a sequence $x(n) = (1, 1, 0, 0)$ and find IDFT of $Y(k) = (1, 0, 1, 0)$.	BL5	CLO1	20
2.	Estimate hybrid multichannel ECG coding.	BL5	CLO3	20
3.	Explain all the brain wave of EEG and their characteristics and significance.	BL5	CLO3	20
4.	What is adaptive filter? Explain LMS adaptive noise canceler with block diagram.	BL2	CLO2	20