



MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

(A constituent unit of MAHE, Manipal)

SEVENTH SEMESTER B. TECH (ELECTRONICS AND INSTRUMENTATION)

PROCTORED ONLINE END SEMESTER EXAMINATION Dec. 21/Jan. 22

SUBJECT: BIOMEDICAL INSTRUMENTATION & EQUIPMENT'S (ICE 4064)

TIME: 75 Minutes

DATE:20-12-2021

MAX MARKS 20

Note: Answer All questions. Draw figures in answers wherever it is necessary

1	A	What is fibrillation? Draw and explain the block diagram of an instrument that monitors the heart activity and gives correction whenever the heartbeat is abnormal.	05
	B	Explain the auscultatory-based measurements with suitable waveforms and diagrams.	03
	C	Usually, the resting membrane potential is negative in various cells. What is the reason behind it? Explain with example.	02
2	A	Mention the frequency range and characteristics of the different waves found in EEG signals. Explain one non-radiative imaging modality for investigating the brain tumor	05
	B	Differentiate between intracorporeal and extracorporeal dialysis with suitable diagrams	03
	C	Differentiate between external and internal defibrillator with suitable diagrams	02