

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: B.Tech
BRANCH: EEE**

**SEMESTER : VI
SESSION : SP/2024**

**SUBJECT: EE415 BIOINSTRUMENTATION AND CONCEPT
TIME: 3 Hours**

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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		CO	BL
Q.1(a)	With the help of diagram explain the physiology of Cardiac System.	[5] 1	2
Q.1(b)	How the electrical potential is generated and propagate within a cell.	[5] 1	2
Q.2(a)	Explain the recording process of ECG.	[5] 2	3
Q.2(b)	Drow and explain the signal acquisition system for Electroencephalograph.	[5] 2	3
Q.3(a)	What is Heart-Lung Machin? How it work ?	[5] 3	3
Q.3(b)	What is difference between Surgical and Therapeutical Diathermy?	[5] 3	4
Q.4(a)	Explain the difference application of rotating anode and stationary anode Xray tube?	[5] 2,3	3
Q.4(b)	What is CT number? How it help to reconstruct the image in CT ?	[5] 2,3,4	4
Q.5(a)	What is cooler doppler sonography?	[5] 3,4	4
Q.5(b)	Explain the working principle of MRI ?	[5] 3,5	5

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