

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION/ SP24)

CLASS: BTECH
BRANCH: EEE

SEMESTER : VI
SESSION : SP24

SUBJECT: EE415 BIOINSTRUMENTATION AND CONCEPTS

TIME: 02 Hours

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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		CO	BL
Q.1(a)	Explain the concept of bio- signal measurement.	[2] 1	1
Q.1(b)	What are the different sources of bio signals?	[3] 1	2
Q.2(a)	How the bio electric signal generated within a cell.	[2] 1	2
Q.2(b)	Defend the general constraint in designing of medical Instrumentation system	[3] 1	2
Q.3(a)	Drow the functional anatomy of heart.	[2] 1	2
Q.3(b)	How are the Electrode and lead selected in ECG?	[3] 2	2
Q.4(a)	What is 10-20 electrode placement scheme for EEG recoding?	[2] 2	2
Q.4(b)	What are the different type of filter use in electro-Myography recoding?	[3] 2	3
Q.5(a)	Explain the waveform recorded form of PCG.	[2] 1	3
Q.5(b)	What Is pulmonary function test? How is it recorded?	[3] 2	3

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