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

CLASS: BTECH **SEMESTER: III**
BRANCH: ECE **SESSION: MO/2022**

SUBJECT:EC207 ELECTRONIC MEASUREMENTS

TIME: 2 HOURS **FULL MARKS: 25**

INSTRUCTIONS:
1. The total marks of the questions are 25.
2. Candidates attempt for all 25 marks.
3. Before attempting the question paper, be sure that you have got the correct question paper.
4. The missing data, if any, may be assumed suitably.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

				CO	**BL**
Q1	(a)	Describe the difference between the deflection and null type instruments by giving suitable examples.	[2]	CO1	BL2
Q1	(b)	Draw the block diagram of a generalized instrumentation system and explain the functions of each block.	[3]	CO1	BL1
Q2	(a)	Define reproducibility. How is it different from repeatability?	[2]	CO1	BL1
Q2	(b)	Explain (i) Drift (ii)accuracy (iii)dead zone	[3]	CO1	BL2
Q3	(a)	A moving coil voltmeter has a uniform scale with 100 divisions, the full scale reading is 100V and 1/10 of a scale division can be estimated with a fair degree of certainty. Determine the resolution of instrument in volts.	[2]	CO1	BL5
Q3	(b)	Explain precision. Find out the significant figures in the following (i) 25.53 A (ii) 0.00437 V	[3]	CO1	BL5
Q4	(a)	Discuss why PMMC can be used only for DC measurements.	[2]	CO2	BL6
Q4	(b)	Describe the construction and working of PMMC in brief.	[3]	CO2	BL1
Q5	(a)	Discuss why the scale of attraction type moving iron instruments is non linear.	[2]	CO2	BL6
Q5	(b)	Discuss the attraction and repulsion type moving iron instrument with clear diagram.	[3]	CO2	BL2

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