

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

**CLASS: BMLT
BRANCH: BMLT**

**SEMESTER : III
SESSION : MO/2024**

SUBJECT: BMT309 INSTRUMENTATION & MEASUREMENT SYSTEM

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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Q.1(a)	Explain direct and indirect method of measurement with suitable examples.	[5]	01 02
Q.1(b)	Describe range of span and threshold of any measuring instrument.	[5]	01 02
Q.2(a)	Explain the working of Digital Multimeter (DMM) with suitable block diagram.	[5]	02 02
Q.2(b)	Describe the merits of digital instruments over analog instruments.	[5]	02 02
Q.3(a)	Explain the working of transducers and classify different transducers.	[5]	03 02
Q.3(b)	Explain the working principle and applications of an LVDT.	[5]	03 02
Q.4(a)	Compare LED and LCD with suitable structural diagram.	[5]	04 04
Q.4(b)	Illustrate the working of CRT with suitable diagram.	[5]	04 03
Q.5(a)	Compare CRO with DSO with suitable block diagram.	[5]	05 04
Q.5(b)	Explain the applications of Artificial Intelligence (AI) and Internet of Thing (IoT) in the field of medical diagnostics.	[5]	05 02

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