

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION SP/2023)**

**CLASS: BTECH
BRANCH: MECHANICAL**

**SEMESTER : VII
SESSION : SP/2023**

SUBJECT: ME257 NON-DSTRUCTIVE TESTING

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)	What is NDT? How it differs from other Mechanical tastings?	[2] 1	1
Q.1(b)	Write the various NDT Techniques and its benefit.	[3] 1	2
Q.2(a)	Write the basic principle of DPT.	[2] 1	1
Q.2(b)	Write about DPT and FPT.	[3] 1	2
Q.3(a)	Define Magnetism and write the basic principle of MPT?	[2] 2	1
Q.3(b)	Explain the procedure followed in MPT.	[3] 2	4
Q.4(a)	Write the basic principle and instrumentation for ECT.	[2] 2	5
Q.4(b)	What are the applications and limitations of ECT?	[3] 2	7
Q.5(a)	Write the basic principle of Radiographic Testing?	[2] 3	1
Q.5(b)	Which NDT method is better DPT, ECT or MPT? justify your answer.	[3] 2	3

:.....24/02/2023:.....M