

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

**CLASS: BTECH.  
BRANCH: MECHANICAL**

**SEMESTER: IV  
SESSION: SP/2023**

**SUBJECT: ME257 NON DESTRUCTIVE TESTING**

**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)	Enumerate NDT Techniques and Compare NDT with other Mechanical tastings.	[5] 2	2
Q.1(b)	Discuss DPT and FPT.	[5] 1	2
Q.2(a)	Write the principle of MPT and Explain the procedure followed in MPT.	[5] 2	1
Q.2(b)	Discuss basic principle and instrumentation for ECT.	[5] 2	3
Q.3(a)	Briefly explain with suitable sketch about working principle of Radiographic Testing.	[5] 1	2
Q.3(b)	Discuss types and uses of filters.	[5] 2	3
Q.4(a)	Write the advantages and limitations of ultrasonic testing.	[5] 2	3
Q.4(b)	What are the different types of ultrasonic testing methods? discuss any one.	[5] 1	3
Q.5(a)	Briefly discuss about NDT methodology for MPT and LPT.	[5] 2	4
Q.5(b)	Compare between VT,DPT and ECT.	[5] 2	3

:01/05/2023:M