

8. (a) Discuss reverse engineering and its applications in non-traditional machining.

8

- (b) Write a note on 3D scanning facilities and surface reconstruction.

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No. of Printed Pages : 04

Roll No.

BB-98

M. Tech. EXAMINATION, May 2017

(Second Semester)

(B. Scheme) (Main & Re-appear)

(ME)

MEP-502B

NON TRADITIONAL MACHINING AND
ADVANCED MANUFACTURING

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

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Unit I

1. (a) Discuss the classification of non-traditional machining processes. 7
(b) Discuss the characteristics, applications, limitations and need of non-traditional machining processes. 8
2. Write notes on the following : 15
 - (a) Manual part programming
 - (b) Programming of CNC—turning and machining centre
 - (c) Supervisory Control and Data Acquisition (SCADA).

Unit II

3. Explain the principle of working of USM highlighting its characteristics, applications, advantages and disadvantages. 15
4. (a) Discuss the need of CNC control of non-traditional machines and machining processes. 8

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- (b) Discuss the characteristics, applications, advantages and limitations of ECM. 7

Unit III

5. Explain mould, tool and die making methodologies and process selection on non-conventional machines. 15
6. (a) Discuss cost and basic concepts of jigs and fixtures used in non-traditional machining. 8
(b) Explain the gauges for inspection of non-traditional machining. 7

Unit IV

7. (a) Discuss the factors affecting the precision of non-traditional machining processes and cost considerations. 8
(b) Discuss applications and limitations of advanced machine tools. 7

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