

(DME 414)

B.Tech DEGREE EXAMINATION, MAY - 2015

(Examination at the end of Final Year)

MECHANICAL ENGINEERING

Paper - IV : Computer Aided Manufacturing & Automation

Time : 3 Hours

Maximum Marks : 75

Answer question No.1 compulsory

(15)

Answer ONE question from each unit

(4 × 15 = 60)

1) Write a short note on the following :

- a) Merits & Demerits of Automation.
- b) Unconventional Machining.
- c) Differences between CNC and DNC.
- d) Punched tape.
- e) Adaptive control machining.
- f) Canned cycle.
- g) MICLASS code.

UNIT - I

- 2) a) Explain types of transfer lines in automation.
- b) What are multi-spindle automatic machines? How they classify?

OR

- 3) a) Explain working principle and construction of AJM.
- b) Write the differences between ECM and EDM.

UNIT - II

- 4) a) What are the basic components of NC? Explain them.
- b) How can you justify that NC machine tool is more accurate and precision than its conventional counter part?

OR

- 5) a) Explain in brief about “Machining Centers” in CNC, and DNC’s.
- b) Describe the advantages of CNC over NC.

UNIT - III

- 6) a) Explain programming languages in CNCs.
- b) What is cutter radius compensation? Explain.

OR

- 7) Write and list out different types of tape formats. Discuss briefly.

UNIT - IV

- 8) Discuss briefly the parts classification and coding benefits of GT.

OR

- 9) Distinguish between CAPP and FMS.

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