

Q.P. Code :13775

[Time: Three Hours]

[Marks:80]

Please check whether you have got the right question paper.

- N.B:
1. Question.No.1 is compulsory.
 2. Attempt any three questions out of remaining 5 questions.
 3. Assume suitable data, if required.

1. Write short note (any four) 20
 - a) Working of stepper motor
 - b) ISO coding for boring bar
 - c) APC
 - d) AS/RS
 - e) CMM
2.
 - a) Explain the salient features of a CIM system. 10
 - b) Describe the various elements of CAM system with a neat block diagram. 10
3.
 - a) Describe types of adaptive control in detail. 10
 - b) Write the names of three important tool materials, their compositions and applications. Also explain tool pre-setting. 10
4.
 - a) Explain in detail Integrated Production Management system. How it is useful in reducing Time losses? 10
 - b) Discuss the techniques used in lean manufacturing with a case study. 10
5.
 - a) What is computer aided part programming? Describe drive, part, check surface and TO, ON, PAST, FWD commands with sketches. 10
 - b) Explain any two G codes and M codes. Explain the functions and importance of subroutines and macros. How to call subroutine and return to main program Give example. 10
6.
 - a) Discuss in detail components, types and guidance methods for AGV's. 10
 - b) Describe retrieval and generative type CAPP system in detail. 10
