

M. Tech.-II (Mechanical CAD/CAM) (CBCS – 2015 Course) :
WINTER - 2018
SUBJECT : PRECISION ENGINEERING

Day : Thursday
Date : 22/11/2018

Time : 11.00 AM TO 02.00 PM
Max. Marks : 60

W-2018-3150

N. B. :

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both sections should be written in the **SEPARATE** answer books.
- 4) Draw neat and labelled diagram **WHEREVER** necessary.
- 5) Assume suitable data, if necessary.

SECTION - I

Q. 1 Discuss in detail concept of accuracy in machine tools. (10)

OR

What kinds of errors are produced in numerical interpolation? Discuss any one in details. (10)

Q. 2 What are the types of form tolerances? Explain importance various types of form tolerances. (10)

OR

Define the meaning datum. How datum system is useful for in manufacturing of component? (10)

Q. 3 Explain the meaning of following terms: (10)

- | | |
|------------------|---------------|
| i) Flatness | iii) Waviness |
| ii) Cylindricity | iv) Roughness |

OR

Discuss dimensional wear of cutting tools and its influences on accuracy. (10)

SECTION - II

Q. 4 Explain how LASER is used in process measurement of diameter. (10)

OR

Describe Mechanical and Optical measurement system in detail. (10)

Q. 5 With suitable sketch explain servo control system for tool portioning. (10)

OR

Discuss computer aided digital and ultra-precision position control systems. (10)

Q. 6 Explain concept total quality control in manufacturing system. (10)

OR

Discuss concept of Computer integrated quality assurance in manufacturing system. (10)

* * * * *