

**M. TECH.-II (MECHANICAL CAD/CAM) (CBCS – 2015
COURSE) : WINTER - 2017
SUBJECT : PRECISION ENGINEERING**

Day **Wednesday**
Date **29/11/2017**

W-2017-2818

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

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 Explain how inaccuracies of machine tools are affecting on workpiece. (10)

OR

Discuss various elements involved in accuracy of manufacturing part. (10)

Q. 2 What is the meaning of zero line in graphical representation of limits and fits? (10)
Discuss various types of tolerances.

OR

Explain necessity of geometrical dimensioning and tolerances in engineering. (10)

Q. 3 What are the sources of forced vibrations? Discuss effect of vibrations in waviness. (10)

OR

Explain effect of length of tool travel on dimensional wear of the cutting tool. (10)

SECTION - II

Q. 4 Explain use of LASER interferometer in detail. (10)

OR

Discuss any one contact type surface roughness measurement technique in precision engineering. (10)

Q. 5 Explain the concept of NANO accuracy in detail. (10)

OR

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

Q. 6 Discuss importance of POKA-YOKE in manufacturing system. (10)

OR

What is the meaning of total quality control? Explain concept of zero defects in manufacturing engineering. (10)

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