

Total No. of Questions : 12]

P1060

SEAT No. :

[Total No. of Pages : 3

[4163] - 217

May - June 2012

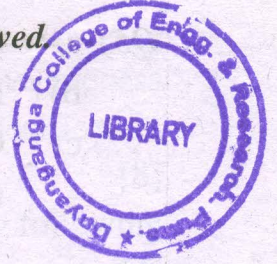
T.E. (Mechanical) (Common to Automobile)
METROLOGY AND QUALITY CONTROL
(2008 Pattern) (Sem. - II)

Time : 3 Hours]

[Max. Marks :100

Instructions to the candidates:

- 1) Answer 3 questions from Section - I and II each.
- 2) Use of logarithmic tables, & Electronic pocket calculator are allowed.
- 3) Assume suitable data.
- 4) Answer 1 or 2, 3 or 4, 5 or 6, 7 or 8, 9 or 10, 11 or 12.



SECTION - I

- Q1) a) Describe use of four balls and height gauge for finding diameter of bore. [6]
- b) Define roundness, errors in roundness and explain method of measurement of roundness. [6]
- c) State Abbe principle of alignment. Explain it with suitable example. [4]

OR

- Q2) a) Write a short note on Angle Dekkor. [6]
- b) Write a short note on L.V.D.T. and it's application in metrology. [6]
- c) What is difference between accuracy & precision. [4]

- Q3) a) Calculate dimensions of ring gauge to control production of shaft of diameter 45 mm of type 'd8' following assumptions may be made.
- i) ϕ 45 mm lies in diameter steps of 30-50mm.
 - ii) Upper deviation of a shaft is given by $(-16 D^{0.44})$.
 - iii) $i = 0.45 \cdot \sqrt[3]{D} + 0.001 D$.
 - iv) $IT8 = 25 i$. [10]
- b) Explain concept of RMS value for surface roughness. [4]
- c) Differentiate between primary & secondary texture. [4]

OR

P.T.O.

