SUBJECT CODE NO:- P-108
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(MECH) Examination MAY/JUNE-2016
Metrology and Quality Control
(Revised)

[Time: Three Hours]   [Max Marks:80]

"Please check whether you have got the right question paper."
N.B   i) Attempt <u>any three</u> questions from each section.
               ii) Assume suitable data, if necessary.
               iii) Figures to the right indicate full marks.

Section A

Q.1   a) Explain and differentiate Linear and Angular measurement.   05
       b) Define the following terms: 08
           1) Accuracy
           2) Reproducibility
           3) Sensitivity
           4) Readability

Q.2   a) Explain the construction and working of LVDT.   06
       b) Explain the surface finish measurement and draw the symbols used with their respective range.   07

Q.3   a) Explain the Gear Terminology with the help of neat diagram.   07
       b) List down the possible sources of errors in gear manufacturing and name their types.   06

Q.4   a) Enlist and explain the different types of gauges used with the help of neat diagram.   07
       b) Explain the construction and working of Auto collimeter with the help of neat diagram.   06

Q.5   Write short notes: (<u>Any three</u>)   14
           1) Co-ordinate measuring machine
           2) Profile projector
           3) IS 919-1963
           4) Limits and Fits

Section B

Q.6   a) Explain quality of design and quality of performance.   07
       b) Explain importance and use of quality circles in quality control.   06

Q.7   a) Explain Poka Yoke.   07
       b) Explain '5S'.   06

Q.8   a) Explain the importance and use of statistical quality control.   07
       b) Explain the use of control chart for variable and attribute.   06

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Q.9   a) Define the term quality of product and differentiate between cost of quality and value of quality.   07
              b) Explain the need and importance of total productive maintenance.   06

Q.10   Write short notes on- <u>Any three</u>.   14
         a) ISO 9000
         b) JIT
         c) Pareto Analysis
         d) Brain Storming