1T01416 - T.E.(MECHANICAL)(Sem VI) (CBSGS) METROLOGY AND QUALITY ENGINEERING
Total Marks: 80   **Duration: 3 Hours**

N.B.:-

1. Question No.1 is compulsory
2. Solve any three out of remaining questions
3. Assume suitable data if required and mention it clearly
4. Figures to right indicate full marks

Q1	A]	Explain surface roughness symbols in brief.	**5**
	B]	Explain concept of flatness with suitable example.	**5**
	C]	Differentiate between precision and accuracy.	**5**
	D]	Write short note on-Planning for quality	**5**

Q2	A]	Explain Taylors Principle of Gauge design with suitable examples	**10**
	B]	Explain construction and working of laser interferometer in detail	**10**

Q3 A] Explain following parameters with respect to surface roughness measurement:-   **10**
   1) R_a Value
   2) R_z Value
   3) R_y Value
   4) RMS value

   B] Explain different types of quality costs in detail. How will you maintain compromise   **10**
   between quality and cost?

Q4 A] Explain following:-   **10**
       1) GANT charts
       2) Pareto Chart

   B] Explain three wire method used in screw thread measurements   **10**

Q5 A] Explain construction, working and applications of 3D coordinate measuring machine   **10**
   B] "Statistically Controlled Process is always a capable process".   **10**
   Do you agree with above statement? Justify your agreement or disagreement in detail.

Q6 A] Explain construction, working Parkinson's tester used in gear measurement.   **10**
   B] Explain Single sampling and double sampling plans in detail   **10**