T.E/Sem VI/Mech/MQE/21/11/17

**Q.P. Code: 25048**

**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] How will maintain compromise between quality and cost? **5**
B] Differentiate between primary and tertiary standards? **5**
C] Explain concept of flatness. **5**
D] Explain importance of surface conditions **5**

**Q2** A] Explain construction and working of any one mechanical comparator **10**
B] Explain following terms with respect to limit, fit and tolerances:- **10**
1) Upper deviation
2) Lower deviation
3) Fundamental Deviation
4) Tolerance grades
5) Clearance Fit

**Q3** A] Explain Taylor Hobson surface roughness measuring instrument in detail **10**
B] Explain different quality costs **10**

**Q4** A] Explain Principle, Construction and working of Parkinson's Gear tester. **10**
B] Explain following:- **10**
1. Pie Charts
2. Bar Charts
3. Scatter Diagrams

**Q5** A] Explain three wire method used in screw thread measurement. **10**
B] Explain following:- **10**
1. R –Chart
2. P-Charts
3. np charts
4. X bar charts

**Q6** A] Explain construction and working of Tool Maker's Microscope **10**
B] Sketch OC curve and explain various elements of it. Also explain double sampling plans **10**