

BHARATI VIDYAPEETH INSTITUTE OF TECHNOLOGY

Question Bank for UT 2

Sub- MAM (313316)

Course- ME4K

Chapter No. 3 Angular, Screw Thread, Gear & Surface Finish Measurements

Questions for 2 Marks

1. Define RMS Value with neat sketch
2. Define Rz Value with neat sketch
3. List down types of Co-ordinate measuring machines
4. Draw Gear tooth Vernier Caliper
5. Define A] Primary texture B] Secondary texture
6. Define CLA Value with neat sketch
7. Define Sampling length, flaw and Lay

Questions for 4 Marks

1. Explain the principle of measurement of gear tooth thickness using a Gear Tooth Vernier Caliper.
2. Explain Parkinson's Gear Tester with neat sketch
3. By using optical flat and monochromatic light source, explain how will you determine flatness of surface.
4. List down types of Co-ordinate measuring machines and explain any two
5. Differentiate Primary texture and Secondary texture
6. Explain working of Taylor Hobson Talysurf with neat sketch
7. List advantages of Co-ordinate measuring machines (Any 8)

Chapter No. 4 Displacement, Temperature and Flow Measurement

Questions for 2 Marks

1. Draw block diagram of generalized measurement system
2. Define transducer and classify it.
3. List any four applications of Transducer.
4. State specifications of L.V.D.T & R.V.D.T (2 Each)
5. List applications of L.V.D.T & R.V.D.T (2 Each)
6. State applications of Potentiometer
7. State Seebeck effect.
8. State Law of intermediate temperature.
9. Write advantages & disadvantages of L. V. D. T (2 Each)
10. Write advantages & disadvantages of R. T. D (2 Each)
11. Write advantages & disadvantages of Thermistor (2 Each)
12. Write advantages & disadvantages of Thermocouple (2 Each)
13. Write advantages & disadvantages of Vane anemometer (2 Each)
14. Define flow measurement. State the classification of flow meter

Questions for 4 Marks

1. What is transducer? State it's advantages & disadvantages
2. Interpret the steps involved in selection of Transducer or Write any four selection factors of Displacement transducer.
3. Explain the construction & working of L.V.D.T
4. Explain the construction & working of R.V.D.T

5. Explain with neat sketch working of Potentiometer
6. Explain the working of Bimetallic thermometer with neat diagram
7. Explain the working of Liquid glass thermometer with neat diagram
8. Describe the working principle of RTD. Explain with neat sketch.
9. Write any four selection criteria for Flow meter
10. Explain the working of Rotameter with neat diagram.
11. Explain the working of Vane anemometer with neat diagram
12. Differentiate between Non electrical method of Temperature Measurement & Electrical method of Temperature Measurement
13. Differentiate between Thermocouple & Thermistor
14. Differentiate between Resistance thermometer(RTD) & Thermistor
15. Differentiate between RTD & Thermocouple

Chapter No. 5 Miscellaneous Measurement

Questions for 2 Marks

1. List down types of sound waves
2. Write any two sound characteristics
3. Define Load cell
4. Enlist different types of Load cells
5. List any four application of load cell
6. Define tachometer
7. Enlist different types of contact less electrical tachometer
8. State the merits & demerits of stroboscope
9. Draw neat diagram of Eddy current drag cup tachometer
10. Draw neat diagram of Pneumatic load cell

Questions for 4 Marks

1. Write any four sound characteristics.
2. Explain with neat sketch working principle of hydraulic load cell
3. Explain with neat sketch working principle of pneumatic load cell
4. Explain with neat sketch working principle of strain gauge load cell
5. Explain tachometer. State different types of tachometers.
6. Explain with neat sketch working principle of eddy current generation type tachometer. List its advantages & disadvantages
7. Explain with neat sketch working of contact less electrical tachometer. List its advantages & disadvantages (Inductive pick-up tachometer)
8. Explain with neat sketch working of contact less electrical tachometer. List its advantages & disadvantages (Capacitive pick-up tachometer)
9. Explain how speed measurement is done by stroboscope. List its advantages & disadvantages
10. Differentiate between Contact type and Non-contact type speed measuring device