

Question Bank

Subject- Engineering Metrology [EME] Subject Code-22342

Semester- III

Scheme- I

Chapter No. 1 Introduction to metrology

2 Marks

- 1) Define Metrology
- 2) State the types of metrology
- 3) State the objectives of metrology
- 4) Define inspection
- 5) List and explain short characteristics of measuring instruments

4 Marks

- 1) List down types of metrology and explain two of them.
- 2) Explain Inspection? Explain the Need of inspection?
- 3) Define a) Accuracy b) Precision c) Sensitivity d) Readability e) calibration & traceability f) Reproducibility
- 4) Define Error and Explain its sources
- 5) List the precautions which consider while selecting and using measuring instruments

Chapter No. 2 Standards and Comparators

2 Marks

- 1) Define line standards, end standards & wavelength standard
- 2) Explain Slip gauge with neat sketch
- 3) Define comparator
- 4) State the types of comparator
- 5) List down uses of comparator

4 Marks

- 1) Compare LINE, END, WAVELENGTH standards
- 2) Explain Slip gauge and wringing process of slip gauges
- 3) Define and explain requirement of good comparator
- 4) Explain A] Dial indicator B] Advantages & Disadvantages
- 5) Explain A] Sigma comparator B] Advantages & Disadvantages
- 6) Explain A] Pneumatic Comparator B] Advantages & Disadvantages

Chapter No. 3 Limits, Fits, Tolerances & Gauges

2 Marks

- 1) Define A] limit B] fits
- 2) Define A] Deviation B] tolerance
- 3) Explain interchangeability
- 4) Explain selective assembly
- 5) State Taylor's principle

4 Marks

- 1) Explain Basic Terminology A] Limit B] Fits C] Tolerance D] Deviation
- 2) Explain (IS 919-1993) fits
- 3) Compare Unilateral & Bilateral system
- 4) Explain hole basis and shaft basis system
- 5) Explain Taylor's principle gauge
- 6) Explain principle of GO and NO GO limit for Plug gauges
- 7) Explain A] Design plug B] Ring gauges C] Snap gauges D] Adjustable snap