

ALPHA COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF DIPLOMA MECHANICAL ENGINEERING

ASSIGNMENT: 5 (FAQ)

METROLOGY & INSTRUMENTATION(3341905)	
D.M.E – 4 TH SEM	CLASS: A & B
LAST DATE OF SUBMISSION:	
MARKS: 10	

FAQ

- 1) Explain limit gauges in detail.
- 2) Design limit gauge to check shaft of $25.00 \pm 0.05 \text{ mm } \varnothing$.
- 3) Explain non destructive testing and write its advantages and applications.
- 4) Explain radiography and hardness test.
- 5) Write gear tooth terminology.
- 6) Explain gear tooth vernier with sketch and write its major parts and their functions
- 7) Explain Parkinson's gear tester with neat sketch.
- 8) Explain constant chord method.
- 9) Give comparison of 'chordal thickness method' and 'constant chord method'
- 10) Explain following term symbol (i) straightness (ii) flatness.
- 11) Explain following term (i) squareness (ii) parallelism.
- 12) Explain following term (i) roundness (ii) cylindricity (iii) concentricity.
- 13) Define Straightness and explain any one method of testing Straightness.
- 14) Explain construction, working of Tomlinson tester and also write its application.
- 15) Explain construction, working of Talysurf surface roughness tester and also write its application.
- 16) Explain following term (i) Centre line average method (ii) Root mean square value (iii) Lay.
- 17) Write Direct instrument measurement method in detail.

- 18) Write terminology used in surface finish.
- 19) Sketch Toolmakers Microscope and explain Pitch measurement of thread with It.
- 20) Draw a neat sketch screw thread and its main elements of Measurement. And explain “three wire method”.
- 21) Explain how to measure major and minor diameter.
- 22) Explain thread micrometer method.
- 23) Explain the working principle of the (i) Resistance transducer
- 24) (ii) Piezo-electric transducer.
- 25) write advantages and disadvantages of transducers.
- 26) Explain linear variable differential transformer(LVDT) type pressure gauge .
- 27) write short note on (i) resistance type transducer (ii) Inductance type transducer.
- 28) write various sensors applications.
- 29) Explain liquid level transducer with sketch and state the limitations.