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Register No.:

November 2022

Time – Three hours
(Maximum Marks: 100)

[N.B. 1. Answer all questions under Part-A each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B each question carries 14 marks.]

PART – A

1. Write short notes on system of units.
2. Define calibration and reliability.
3. Define steel rule.
4. What are the limitations of sine bar?
5. Define helix angle of screw thread.
6. Classify the geometrical irregularities.
7. What are the advantages of laser based measurement?
8. What is computer based inspection?
9. List out the direct methods used to measure the force.
10. What is dynamometer? Give its classification.

[Turn over.....

PART - B

11. (a) Explain the various types of errors.

(Or)

(b) Explain the procedure for selecting the measuring instruments.

12. (a) Explain the construction and working principle of vernier height gauge with neat sketch.

(Or)

(b) Explain the working principle of autocollimator with neat sketch.

13. (a) Explain the measurement of minor diameter of external screw thread using bench micrometer with suitable sketch.

(Or)

(b) Explain the method of measuring tooth thickness of gear using David brown tangent comparator.

14. (a) Explain the two frequency laser interferometer with a neat sketch.

(Or)

(b) Explain the trigger type probe system with a neat sketch.

15. (a) Explain unequal arm balance method of force measurement system with a neat sketch.

(Or)

(b) Explain construction and working of laser Doppler anemometer with a neat sketch.
