Reg. No. :

PART A - (10 x 2 = 20 Marks)

1. Define the term reliability.

2. List any two types of absolute error.

3. Define the term eccentricity.

4. Define sine center.

5. What is meant by drunken error in screw threads?

6. Mention the methods of roundness measurement.

7. List the different types of interferometer.

8. State the differences between crest and trough.

9. State the working principle of thermocouple.

10. State any four inferential type of flow meter.

PART - B (5 x 16 = 80 Marks)

11. (a) (i) Discuss the requirements for an instrument to measure accurately.   (8)

    (ii) Explain the need of precision and accuracy in metrology.   (8)

Or

   (b) (i) Explain the dimensional and geometric tolerances.   (10)

    (ii) Briefly discuss about interchangeability.   (6)

12. (a) Explain with a neat sketch the construction and working of tool makers microscope.   (16)

Or

   (b) Write short notes on bevel protractor and autocollimators with neat sketches.   (16)

13. (a) Describe the constant chord method and base tangent method for measuring gear teeth with neat sketches.   (16)

Or

   (b) (i) Explain in detail about the roundness testing machine.   (8)

    (ii) Describe a method to find out flatness of a surface plate   (8)

14. (a) Explain the principles of measurement using laser interferometer.   (16)

Or

   (b) Explain with neat sketch the construction and working of a CMM.   (16)

15. (a) Explain briefly the various methods of measuring torque.   (16)

Or

   (b) Explain the construction and working of thermocouple and pyrometer.   (16)

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