18.11.2023 A020330 M&M

Register No.:

549

October 2023

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. Classify measuring instruments.

2. Draw the following metrological symbols.
(i) Parallelism (ii) Run out (iii) Circularity

3. What is the use of micrometer?

4. What are the differences between electrical and mechanical comparators?

5. List out the methods for measuring major and minor diameter of screw thread.

6. Write short notes on double microscope.

7. What is interferometry? Write the uses of laser in interferometry.

8. List out the application of CMM.

9. State the working of load cells.

10. Write the short notes on diaphragm gauge with strain gauge.

[Turn over.....

PART – B

11. (a) Explain the important elements of measurements with block diagram.

(Or)

(b) Explain precision and accuracy with a neat sketch.

12. (a) Explain the construction and working principle of inside micrometer with a neat sketch.

(Or)

(b) Explain optical bevel protractor with a neat sketch.

13. (a) Explain the construction and working of tracer type profilogram with a neat sketch.

(Or)

(b) Explain the working of screw gauge.

14. (a) Explain construction and working principle of Laser Telemetric system with a neat sketch.

(Or)

(b) Explain the types of CMM with neat sketches.

15. (a) Explain Hydraulic load type force measurement system with a neat sketch.

(Or)

(b) Explain hot wire anemometer with a neat sketch. List out its advantages.
