Register No.: [ ]

709

April 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. Define legal metrology.
2. Define error.
3. Define least count and write the formula for least count of Vernier caliper.
4. Write the use of feeler gauge with a neat sketch.
5. Write the functions of ring screw gauges.
6. What are the types of gear?
7. Write short notes on photodiode array imaging.
8. List the types of CMM.
9. Define load cell. What are the common types of load cells?
10. Write about piezoelectric sensors.

[Turn over.....

PART – B

11. (a) Discuss about the general rules for accurate measurements?

(Or)

(b) Explain important terminologies in metrology.

12. (a) Explain the construction and working of electrical comparator with neat sketch. List out its advantages and disadvantages.

(Or)

(b) Explain the construction and working of Vernier height gauge with neat sketch.

13. (a) Explain the construction and working of floating carriage micrometer with a line sketch.

(Or)

(b) Explain the spur gear terminology with neat sketch.

14. (a) Explain the working of Michelson interferometer with neat sketch.

(Or)

(b) Explain the construction and working of CMM with neat sketch and also write its applications.

15. (a) Explain construction and working of electromagnetic flow meter with neat sketch.

(Or)

(b) Explain equal arm balance method of force measurement system with a neat sketch.
