

Register No.:

2034

October 2024

Time - Three hours
(Maximum Marks: 100)

- IN.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 true size.
2. What is random error?
3. List out the requirements of slip gauges.
4. What are the types of bevel protractor?
5. Define roughness.
6. How the backlash of gear is measured?
7. What are the causes of errors in CMM?
8. List the uses of Twyman-Green interferometer.
9. List out the different methods for measurement of torque.
10. Write the advantages of rotameter.

[Turn over.....

PART – B

11. (a) (i) Explain system concepts used in measuring technology. (7)
(ii) Explain the needs for inspection. (7)
(Or)
- (b) (i) Differentiate precision and accuracy. (6)
(ii) What are the general rules for accurate measurement? (8)
12. (a) Explain the construction and working principle of light wave micrometer with neat sketch.
(Or)
- (b) Describe the working principle of clinometer with neat sketch.
13. (a) Explain the classification of thread gauges.
(Or)
- (b) Describe the working principle of Vernier gear tooth caliper with neat sketch.
14. (a) Explain the construction and working of standard interferometer with neat sketch.
(Or)
- (b) (i) Explain how the distance can be measured by laser and LED based instruments. (10)
(ii) What are the features of CMM? (4)
15. (a) Explain the working of electromagnetic balance force measurement system with a neat sketch.
(Or)
- (b) (i) Discuss about diaphragm pressure sensor with neat sketch.(7)
(ii) Explain the operation of Piezo electric sensors with neat sketch.(7)
