

S.B. Roll No.....

METROLOGY AND INSTRUMENTATION
3rd Exam/Mech./4653/Feb'2021
(For 2018 Batch Onwards)

Duration: 1.15Hrs.

M.Marks:25

SECTION-A

Q1. Attempt any three questions.

3x5=15

- i. What is sine bar? Explain the method of measurement of unknown angle.
- ii. What are the factors that affect surface finish?
- iii. Discuss Systematic and Random errors.
- iv. Explain the concept of primary texture and secondary texture.
- v. Describe construction and working of slip gauges in detail.
- vi. Explain the construction and working of dial indicator with the help of a figure.
- vii. Describe the working principle of strain gauge.
- viii. Discuss the methodology of checking flatness of a surface.

SECTION-B

Q2. Attempt any one question.

1x10=10

- a. Explain the construction and working principle of Vernier callipers. Also, discuss the classification of Vernier callipers.
- b. Explain construction and working of Tomilson surface meter.
- c. Explain construction and working of Tool maker's microscope. List its uses also.
- d. Explain the 3-wire method of measurement of pitch diameter.