S.B. Roll No……..

METROLOGY AND INSTRUMENTATION
6th Exam/Mech./RAC/5319/Nov'18

Duration: 3Hrs. **M.Marks:75**

SECTION-A

Q1. Fill in the blanks. **10x1.5=15**

a. When the line of vision is not directly in line with measuring scale, the error is called _____
b. _____ expresses the degree of repeatability of the measuring process.
c. The process of making the gauge blocks adhere is known as _____
d. The gauge number varies _____ as the size of the wire.
e. An auto-collimator is an optical device used to measure _____ deflection.
f. The sine bar should not be used for angle more than _____
g. The irregularity of small wavelength is called _____
h. _____ vernier is used to measure the thickness of gear tooth.
i. The tachometer is used measuring _____
j. The C chart is based on _____distribution.

SECTION-B

Q2. Attempt any six questions. **6x5=30**

i. Write short note on feeler gauge.
ii. Explain total quality management in brief.
iii. Differentiate between precision and accuracy.
iv. Explain linear variable differential transformer.
v. Explain in brief plug thread gauges.
vi. What is Flatness? Explain any one method for the measurement of flatness.
vii. Explain reed type mechanical comparator.
viii. What are the various standards of measurement?

SECTION-C

Q3. Attempt any three questions. **3x10=30**

a. Discuss construction and working of auto-collimator.
b. What is sine bar? Explain the use of sine bar.
c. Explain Taylor Talysurf Surface roughness tester.
d. Describe slip gauges in detail.
e. Explain micrometer with a neat sketch.