

- Q.24 What are effects of errors on the quality?
  - Q.25 Write a short note on Auto collimator.
  - Q.26 Name the various instruments used in alignment test.
  - Q.27 What are the benefits of statistical quality control?
  - Q.28 Write the advantages of control charts.
  - Q.29 What are characteristics of multiple sampling plans?
  - Q.30 Explain the frequency polygon.
  - Q.31 List the techniques for TQM.
  - Q.32 Write the functions of ISO 9000.
  - Q.33 What is 5S?
  - Q.34 Write the advantages of LVDT.
  - Q.35 Explain R- Chart.

## **SECTION-D**

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain depth gauge micrometer with the help of neat sketch

Q.37 Explain the principle, construction and working of pneumatic comparator.

Q.38 Define the transducer. Explain its different types.

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6th Sem / Mech. Engg. (MSIL)  
Subject:- Inspection and quality Control

Time : 3Hrs.

M.M. : 100

## **SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 A rule is an \_\_\_\_\_ standard.

  - a) End
  - b) Line
  - c) Master
  - d) Workshop

Q.2 Interchangeability \_\_\_\_\_ costs.

  - a) Increases
  - b) Decreases
  - c) Do not affect
  - d) None of these

Q.3 The more nearly accurate measuring instrument from the following is \_\_\_\_\_.

  - a) Ruler
  - b) Vernier
  - c) Micrometer
  - d) None of these

Q.4 Surface plates are provided \_\_\_\_\_ point support.

  - a) 2
  - b) 3
  - c) 4
  - d) 5

- Q.5 It is preferable to use a sine bar for measuring angles.
- a) Up to  $45^\circ$       b) up to  $10^\circ$   
c) More than  $45^\circ$       d) up to  $90^\circ$
- Q.6 Sigma comparator is \_\_\_\_\_ comparator.
- a) Mechanical      b) Electrical  
c) Optical      d) Electronic
- Q.7 Electronic instrument for measurement of surface texture is \_\_\_\_\_.
- a) Auto collimator      b) Talysurf  
c) Optical flat      d) DTI
- Q.8 The minimum LCL on R-chart is.
- a) 1      b) 0  
c) 0.5      d) 2
- Q.9 Which of the following is measured by tachometer?
- a) Linear displacement  
b) Acceleration  
c) Amplitude of vibration  
d) Angular velocity
- Q.10 An ISO certificate does mention.
- a) Scope of service      b) Time validity  
c) ISO standard number      d) All of these

## SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 A vernier caliper is line measuring instrument (True/False)
- Q.12 ANSI stands for \_\_\_\_\_.
- Q.13 What is meant by precision of the measuring instrument?
- Q.14 Electrical comparator does not have many moving parts (True/False).
- Q.15 If thread angle is  $20^\circ$ , then flank angle of the thread is \_\_\_\_\_.  
Q.16 What is value of one micron?
- Q.17 State the use of spirit level in machine tool alignment test.
- Q.18 The normal curve is \_\_\_\_\_ about the mean.
- Q.19 Controlling the variability is an essential aspect of maintaining quality. (True/False)
- Q.20 What is kaizen?

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Define the basic methods of measurements.
- Q.22 Name the various instruments used for plane surface measurement.
- Q.23 Write a short note on Sine bar.