

Q.21 What is 5S? Explain the pillars of 5S.

Q.22 Define Error. What are its different types?

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain TQM. Mention its principles and advantages.

Q.24 Explain the working and construction of Tool Room Microscope with the help of neat sketch.

Q.25 Explain \bar{X} chart of R-chart with suitable example.

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Roll No.

6th Sem / Mech, Mech (Tool & Die Design)

Subject : Metrology and Quality Control

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 What is the primary goal of remedial inspection in quality control?

- a) To identify all defects in a product
- b) To correct defects and prevent them from recurring.
- c) To increase production speed
- d) To reduce the cost of inspection

Q.2 Which of the following is a key component of a tool room microscope?

- a) Electron gun
- b) Measuring stage with micrometer screws.
- c) Vacuum chamber
- d) Fluorescence filters

- Q.3 Pitch is the axial distance moved by screw in _____
- a) half rotation b) one rotation
 - c) two rotations d) three rotations

- Q.4 Control Charts were devised by
- a) Gauss b) Gilberth
 - c) W.A. Shewhart d) Poisson

- Q.5 Kaizen means:
- a) Continuous production
 - b) Continuous improvement
 - c) Continuous inspection
 - d) Continuous supply of raw material

- Q.6 Self generating transducers are _____ transducers.
- a) Active b) Passive
 - c) Inverse d) Secondary

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Define Transducer.
- Q.8 _____ gauges are used to check the contour of a profile of a workpiece.

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- Q.9 Define Frequency.
- Q.10 Define reflection of light.
- Q.11 Define Standard Deviation
- Q.12 Mention two types of control Charts.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Explain ISO-9000.
- Q.14 Explain any one geometrical measurement method of Straightness.
- Q.15 Mention the characteristics of Normal Distribution.
- Q.16 What is a comparator? Explain any one type of Comparator.
- Q.17 Explain :
- a) Ring Gauges
 - b) Snap Gauges
- Q.18 Enlist advantages and disadvantages of LVDT.
- Q.19 Explain :
- a) Bar Chart
 - b) Frequency Polygon
- Q.20 Explain Double Sampling Plan.

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