

- Q.27 Define Calibrations and it's applications.
- Q.28 Define Concept of surface roughness and it's classifications.
- Q.29 Define Spur Gear Terminology.
- Q.30 Define Screw Thread and their measurements.
- Q.31 Define Concept of Standardization and Calibration.
- Q.32 Define SQC in detail.
- Q.33 Define 6W in inspection.
- Q.34 What are the Line Standards and End Standards? How do they differ?
- Q.35 Define CMM?

SECTION-D

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

- Q.36 Explain :
- Tool Maker Microscope
 - Profile Projector with neat diagram
- Q.37 Explain working principle of Mechanical Comparators, Sensitivity and Amplification.
- Q.38 Explain Principle of Calibration, steps for calibration and environmental conditions required for calibrations.

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SECTION-A

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

- Q.1 Division of vernier scale are equal to 11 divisions of a main scale of each 0.1 mm. What is the least count of the vernier scale.
- 0.009
 - 0.01
 - 0.1
 - 1.1
- Q.2 The term "Allowance" in limits and fits is usually referred to
- Minimum Clearance between shaft and hole
 - Maximum Clearance between shaft and hole
 - A difference of tolerance of hole and shaft
 - Difference between maximum size and minimum size of the hole
- Q.3 Permissible limits of error in chaining for measurement on rough or hilly ground is
- 1:2000
 - 1:1000
 - 1:500
 - 1:250
- Q.4 What is the most commonly standard length of a feeler gauge blade?
- 25 mm
 - 65 mm

- c) 100 mm d) 50 mm
- Q.5 The least count of vernier caliper is
 a) 0.001 mm b) 0.002 mm
 c) 0.02 mm d) 0.01 mm
- Q.6 The full form of “TQM” is
 a) Total Quality Management
 b) The Quality Management
 c) Total Quotient Management
 d) Total Quantity Management
- Q.7 According to Taylor’s Principle which type of gauge checks both size and geometric features?
 a) Go Gauge b) No Go Gauge
 c) Both a & b d) None of the above
- Q.8 Which thread has a combined strength of square thread and V thread?
 a) Acme Thread
 b) Knuckle Thread
 c) Buttress Thread
 d) British Standard whitworth thread
- Q.9 A dial gauge is a
 a) Measuring Instrument
 b) Comparator
 c) Limit Gauge
 d) Inspection Fixture
- Q.10 Which of the following gauges is used to check the inside taper hole?
 a) Thread Gauge b) Rectangular Gauge
 c) Taper Plug Gauge d) Square Gauge

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 What is Inspection?
- Q.12 What is basic linear measurement Instrument?
- Q.13 What are the use of Feeler Gauge?
- Q.14 What is the principle of vernier caliper?
- Q.15 What are the use of combination set?
- Q.16 What are the concept of errors?
- Q.17 What are the concept of Interchangeability?
- Q.18 What are the full form of BSW?
- Q.19 What are the zero error?
- Q.20 What is surface Texture Measurement?

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Define Try Square, V-Block and Straight Edge.
- Q.22 Define Micrometer and its least count with diagram.
- Q.23 Name of any five angular measuring Instruments.
- Q.24 Define Straightness, Flatness and Parallelism, Circularity and concentricity.
- Q.25 Define types of errors.
- Q.26 Define Sine Bar with working principle and neat diagram.