

- 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 :
 a) Tool Maker Microscope
 b) 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.

No. of Printed Pages : 4
Roll No.

202023

Advance Diploma In Tool and Die Making

Subject:- Engineering Metrology

Time : 3Hrs.

M.M. : 100

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.
 a) 0.009 b) 0.01
 c) 0.1 d) 1.1
 Q.2 The term “Allowance” in limits and fits is usually referred to
 a) Minimum Clearance between shaft and hole
 b) Maximum Clearance between shaft and hole
 c) A difference of tolerance of hole and shaft
 d) 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
 a) 1:2000 b) 1:1000
 c) 1:500 d) 1:250
 Q.4 What is the most commonly standard length of a feeler gauge blade?
 a) 25 mm b) 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.