

SECTION-D

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

Q.23 Explain the Gear tooth terminology with neat sketch. (CO6)

Q.24 Explain the concept and working principle of Tool maker's microscope. (CO1)

Q.25 Write Short Notes on (CO4)
a) Plug Gauge
b) Screw pitch Gauges

No. of Printed Pages : 4
Roll No.

222023

2nd Year/ Advance Diploma in Tool & Die Making
Subject : Engineering Metrology

Time : 3 Hrs.

M.M. : 60

SECTION-A

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

Q.1 Which of the following is NOT a basic linear measurement instrument? (CO1)

- a) Vernier Caliper
- b) Micrometer Screw Gauge
- c) Angle Protractor
- d) Steel Rule

Q.2 The common cause of random error is (CO2)

- a) Friction in instrument movement.
- b) Hysteresis in elastic members.
- c) Parallax error between pointer and scale.
- d) All of the above.

Q.3 Which gauges are used to check the accuracy of other gauges? (CO4)

- a) Working gauges. b) Inspection gauges.
- c) Master gauges. d) All of the above.

Q.4 The least count of vernier caliper is (CO1)

- a) 0.001 mm
- b) 0.002 mm
- c) 0.02 mm
- d) 0.01 mm

Q.5 A ring gauge is used to check (CO4)

- a) Diameter of holes.
- b) Diameter of shafts
- c) Both (a) and (b)
- d) None of the above.

Q.6 A sine bar is specified by (CO6)

- a) Its total length.
- b) The centre distance between two rollers.
- c) Size of rollers.
- d) The distance between rollers and upper surface.

SECTION-B

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

Q.7 Define repeatability. (CO2)

Q.8 The science of measurement and its application is known as _____ (CO1)

Q.9 Name any two measuring instruments used for angular measurement. (CO1)

Q.10 Define Random Error. (CO2)

Q.11 Name any two measuring instruments used in alignment test of machine tools. (CO6)

Q.12 Write full form of VMM. (CO8)

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SECTION-C

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

Q.13 What is scope of Inspection and also enlist its disadvantages? (CO1)

Q.14 Explain working principle of vernier caliper with neat sketch. (CO1)

Q.15 What are the sources of errors in measurement? (CO2)

Q.16 Define Circularity, ovality and angularity. (CO2)

Q.17 What are different types of fits? Explain any one with neat sketch. (CO3)

Q.18 What are gauges? Mention any three applications of gauges. (CO4)

Q.19 Explain the concept of measurement by thread micrometer. (CO5)

Q.20 What is calibration? Also explain its concept in measurements. (CO6)

Q.21 Explain Coordinate Measuring Machine. (CO8)

Q.22 Explain surface irregularities and surface finish. (CO7)

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