

Q.24 Explain the working of Profile Projector with neat diagram. (CO6)

Q.25 Explain Tool Maker Microscope with labeled diagram. (CO8)

No. of Printed Pages : 4
Roll No.

222023

2nd Year / Advance Diploma in Tool and 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 If the screw pitch is 0.5 mm and divisions on the thimble is 50 then the least count of micrometer is (CO1)

- | | |
|------------|-------------|
| a) 1 mm | b) 25 mm |
| c) 0.01 mm | d) 0.001 mm |

Q.2 One inch _____ mm (CO2)

- | | |
|---------|----------|
| a) 22.4 | b) 23..4 |
| c) 24.4 | d) 25.4 |

Q.3 Which of the following is not a control chart:- (CO4)

- | | |
|--------------|------------|
| a) X - chart | b) R-chart |
| c) P-chart | d) A-chart |

Q.4 The angle of 'V' thread is _____ degree. (CO5)

- a) 29 b) 30
- c) 45 d) 60

Q.5 Surface Plate is made up of (CO7)

- a) Granite b) Cast iron
- c) Glass d) All of these

Q.6 The full form of VMM is (CO8)

- a) Vision Measuring Machine
- b) Vertical Measuring Machine
- c) Variable Measuring Mechanism
- d) Vacuum Measuring Machine

SECTION-B

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

Q.7 Define Measurement. (CO1)

Q.8 Define interchangeability. (CO3)

Q.9 Define Ring Gauge. (CO4)

Q.10 Define Pitch of the gear. (CO6)

Q.11 Define Surface Roughness. (CO7)

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

(2)

222023

SECTION-C

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

Q.13 Name any five instruments for angular measurement. (CO1)

Q.14 Write any four functions of inspection. (CO1)

Q.15 Define Straightness, flatness, parallelism and ovality. (CO2)

Q.16 Describe the principle of "Interference fir" with sketch. (CO3)

Q.17 Explain the function of Surface plate and feeler gauge with diagram. (CO4)

Q.18 Explain the concept of Go and No Go gauge. (CO4)

Q.19 Explain 3 wire method with suitable diagram. (CO5)

Q.20 How will you do the angular measurement using Sine bar? (CO6)

Q.21 Define surface finish? Write symbols used in surface roughness. (CO7)

Q.22 Differentiate between VMM and CMM. (CO8)

SECTION-D

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

Q.23 Explain various types of gauges with suitable diagram. (CO4)

(3)

222023