

No. of Printed Pages : 4 181762/171762/121762/
Roll No. 031762/184532/31846/105355

**6th Sem / Branch : Mech, T&D,Prod,Mechatronics, GE,
CNC,CAD/CAM,Found & Forg.Mech Engg.
(Fabrication Tech) Mech (CAD/CAM Design & Robotics)
Sub. : Inspection & Quality Control/Metrology**

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Which of the following is not a line standard? (CO1)
a) Yard b) Meter
c) Precision scale d) Length bar
- Q.2 Which of the following is not correct about wavelength standard? (CO1)
a) Wavelength of monochromatic light is an invariable unit of length
b) Wavelength standard is a physical standard
c) It is reproducible standard
d) It is a natural unit of length
- Q.3 What is QA? (CO2)
a) It is the measurement of degree to which a product satisfies the need
b) Any systematic process used to ensure quality in the process.
c) Process of identifying defects
d) It is a corrective tool

- Q.4 What is the colour of the band at 'No go' side of plain gauges? (CO2)
a) Red b) Blue
c) Green d) Yellow
- Q.5 ISO was founded in (CO6)
a) 1944 b) 1950
c) 1948 d) 1946
- Q.6 Control of the process average or mean quality level is usually done with the _____ control. (CO5)
a) X bar control chart b) S control chart
c) R chart d) P chart
- Q.7 What does the abbreviation ASQ stand for? (CO6)
a) American Society for Quality
b) American Standard of Quality
c) Asian Society for Quality
d) Asian Standard for Quality
- Q.8 Which of the following is a principle of TQM? (CO6)
a) Product centered system
b) Integrated system
c) Intermittent improvement
d) Decisions made by top executives only
- Q.9 Self generating transducers are _____ transducer. (CO7)
a) Secondary b) Passive
c) Inverse d) Active
- Q.10 Kaizen means (CO6)
a) Continuous production
b) Continuous inspection
c) Continuous improvement
d) Continuous supply of raw material

SECTION-B

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

- Q.11 What is preventive inspection? (CO1)
- Q.12 Define refraction of light. (CO2)
- Q.13 Name any two type of errors. (CO2)
- Q.14 Give the principle of electronic measuring instruments. (CO2)
- Q.15 What is SQC?
- Q.16 Define Variance. (CO6)
- Q.17 Define quality. (CO4)
- Q.18 What is T.Q.M.? (CO6)
- Q.19 Define Transducer? (CO7)
- Q.20 What is full form of LVDT? (CO7)

SECTION-C

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

- Q.21 Define interchangeability. Explain its types. (CO1)
- Q.22 Write a short note on sine bar. (CO2)
- Q.23 Enlist the sources of various types of errors. (CO3)
- Q.24 Write a short note on limit gauges. (CO2)
- Q.25 Explain straightness and flatness. (CO3)
- Q.26 Show the different parts of a try-square with neat sketch. (CO2)
- Q.27 Explain gauge Tolerance. (CO3)
- Q.28 Explain the effects of errors on the quality of products. (CO4)

- Q.29 Explain bar chart. (CO5)
- Q.30 Write the characteristics of normal distribution. (CO5)
- Q.31 Enlist the benefits of statistical quality control. (CO6)
- Q.32 Explain binomial distribution. (CO6)
- Q.33 Write a short note on 5S system. (CO6)
- Q.34 What are transducers? Give their classification. (CO7)
- Q.35 What are the main advantages and application of LVDT? (CO7)

SECTION-D

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

- Q.36 What is vernier caliper? Explain construction and working of a vernier caliper with diagram. (CO2)
- Q.37 Explain the following Statistical terms (CO4)
 - a) Average b) Median
 - c) Mode d) Range
 - e) Standard deviation f) Frequency distribution
- Q.38 Explain the measurement of temperature with the help of transducers. (CO7)