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**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

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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)