

No. of Printed Pages : 4

Roll No.....

181762/171762/121762/

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6th Sem,

**Branch : Mechanical Engg.**

**Subject : Inspection and Quality Control**

**Time : 3 Hrs.**

**M.M. : 100**

### SECTION-A

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

- Q.1 Ring gauge is used for measurement \_\_\_\_\_.(CO-02)  
a) Outer diameter      b) Inner diameter  
c) angle measurement      d) Length of shaft
- Q.2 The totally of items under consideration is known as \_\_\_\_\_.(CO-05)  
a) Sample      b) Lot size  
c) Mean      b) Lot
- Q.3 Which of the following is one of the 55 pillars.  
a) Structure      b) Survive (CO6)  
c) Standardise      d) Shift
- Q.4 \_\_\_\_\_ the most common value in the group repeating largest number of times. (CO-4)  
a) Mode      b) Median  
c) Mean      d) Range
- Q.5 Self generating transducers are (CO-7)  
a) Active      b) Pulse  
c) Digital      d) Analog

- Q.6 An X bar chart use the following data (CO-4)  
a) Count data  
b) Attribute measurement data  
c) Variable measurement data  
d) None of the above

- Q.7 \_\_\_\_\_ is not a fundamental quantity. (CO-1)  
a) Mass      b) Velocity  
c) Length      d) Time

- Q.8 In F.P.S. system of unit, the mass is measured in \_\_\_\_\_.(CO-1)  
a) Gram      b) Pound  
c) Kg      d) Tonne

- Q.9 Which instrument is designed on principle of screw and nut. (CO-2)  
a) Height gauge      b) Micrometer  
c) Vernier calliper      d) Depth gauge

- Q.10 TQM focuses on (1) Supplier (2) Employee (3) Customer. The Correct answer is \_\_\_\_\_.(CO-02)  
a) 1 and 3 only      b) 3 only  
c) 2 and 3 only      d) 1, 2 and 3 only

### Section B

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

- Q.11 Define 5S? (CO-6)  
Q.12 Define control charts. (CO-4)  
Q.13 Define comparator. (CO-3)

(1) 181762/171762/121762/  
31762/84532/31846/105355

(2) 181762/171762/121762/  
31762/84532/31846/105355

- Q.14 Give any two examples of control charts for attributes. (CO-5)
- Q.15 Give mathematical formula for mean deviation. (CO-4)
- Q.16 Explain briefly the working of dial gauge. (CO-7)
- Q.17 Define interchangeability. (CO-1)
- Q.18 What for an autocollimator is used? (CO-3)
- Q.19 What is passive transducer? (CO-7)
- Q.20 Define TQM. (CO-6)

### Section-C

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

- Q.21 Enlist any five alignment tests carried on a drilling machine. (CO-3)
- Q.22 Why are electrical measuring instruments have more advantageous as compared to mechanical instruments? (CO-2)
- Q.23 Write five main objective of inspection (CO-1)
- Q.24 What are the Line standards and End Standards? How do they differ? (CO-1)
- Q.25 With the help of suitable sketch explain the following. (CO-4)
- Frequency Histogram
  - A Bar chart
- Q.26 Write the characteristics of normal distribution curve? (CO-4)

(3) 181762/171762/121762/  
31762/84532/31846/105355

- Q.27 Explain with neat sketches (i) Plug gauges (ii) Snap gauges. (CO-7)
- Q.28 Compare the X bar, R chart with P chart. (CO-4)
- Q.29 Explain with the neat sketch working of 'Sigma' comparator. (CO-3)
- Q.30 Calculate the mean deviation of 3, 6, 6, 7, 8, 11, 15 and 16. (CO-4)
- Q.31 Discuss single sampling plan. (CO-5)
- Q.32 Name the various quality control tools. Explain any one with suitable diagram. (CO-6)
- Q.33 Explain the construction of profile projector with diagram. (CO-2)
- Q.34 Write five main objective of inspection. (CO-1)
- Q.35 Describe with the help of a neat sketch, the working of an outside micrometer. (CO-2)

### Section-D

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

- Q.36 Write the short note on (CO-06)
- Potentiometer
  - Sampling Plan
- Q.37 Name the various types of QC tools. Explain any four? (CO-6)
- Q.38 Explain LVDT in detail. Write its advantages and disadvantages. (CO-7)

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(4) 181762/171762/121762/  
31762/84532/31846/105355