

DIPLOMA OF VOCATION
Mechanical-Manufacturing
Subject: Inspection & Quality Control
Subject Code: IMS-302
Semester: First
December 2019
Theory (External): 35 Marks
Time: 03 hours

Instructions to the Students

1. This Question paper consists of two Sections. All sections are compulsory.
2. Section A comprises 10 questions of objective type in nature. All questions are compulsory. Each question carries 1 mark.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 5 marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labelled

Roll Number

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SECTION –A (OBJECTIVE TYPE QUESTIONS)
(10x1=10 Marks)

- A High cost, low volume items requires
- a) no inspection
 - b) little inspection
 - c) intensive inspection
 - d) 100% inspection
- B The dividing lines between random and non-random deviations from mean of the distribution are known as
- a) upper control limit
 - b) lower control limit
 - c) control limits
 - d) two sigma limits
- C The chart used to monitor variable is
- a) Range Chart
 - b) P-Chart
 - c) C-Chart
 - d) All of the above
- D A milk powder tin is being weighted as it is filled is an example of
- a) Operation cum transportation
 - b) Operation cum inspection
 - c) Transportation cum inspection
 - d) None of the above
- E LCL for the R Chart is given by _____
- a) $D_3 \bar{R}$
 - b) $D_2 \bar{R}$
 - c) $\bar{R} - D_3 \bar{R}$
 - d) $D_2 \bar{R}$

- F Which of these gives the correct value of A_2 used in the equation for control limits of a \bar{x} control chart?
- a) $\frac{3}{d_2 \cdot \bar{x}}$
- b) $\frac{3}{\bar{x}}$
- c) $\frac{3}{d_2}$
- d) $\frac{3}{d_2 \cdot \bar{x}}$
- G A tolerance diagram is also called _____
- a) Scatter diagram
- b) Defect Concentration diagram
- c) Histogram
- d) Tier Chart
- H Name a Sampling procedure in which initial respondents are selected by probability methods, and then additional respondents are obtained from information provided by initial respondents
- a) Semi-random
- b) Initial
- c) Quota
- d) Snowball
- I The degree of closeness of the measured value of a certain quantity with its true value is known as
- a) Accuracy
- b) Precision
- c) Standard
- d) Sensitivity
- J The following term(s) is (are) associated with measuring devices
- a) Sensitivity
- b) Damping
- c) Both 'a' and 'b'
- d) None of the above

SECTION –B (ESSAY TYPE QUESTIONS)
(5x5=25 Marks)

- Q1 What is the inspection? Explain types and remedial of Inspection
- Q2 Discussion the working of Micrometers and surface plate
- Q3 Write short notes on the following:
- (a) Wire gauge
 - (b) Profile projector
- Q4 Explain the Logic and Purpose of Mean and Range control charts
- Q5 State the difference between quality control and quality assurance
- Q6 Discuss the types of Inspection plans
- Q7 Explain the method of Stratified Random Sampling & Quota Sampling
- Q8 Discuss the applications of thread and depth gauges

*****END OF PAPER*****