

Seat No: _____

Enrollment No: _____

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Summer 2017 - 18 Examination

Semester: 2
Subject Code: 03208154
Subject Name: Statistical Process Control

Date: 25/05/2018
Time: 2:00pm to 4:30pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1** A) How Statistical Process Control helps to handle the variations in manufacturing industry? (05)
B) Draw the flow chart of double sampling plan. (05)
C) What is Operating Characteristics Curve, Explain with neat sketch. (05)

- Q.2 Answer the following questions.** (Attempt any three) (Each five mark) (15)
A) Explain Producer's risk and Consumer's risk in context of acceptance sampling.
B) Differentiate between Chance and Assignable causes of variation.
C) Classify Control Chart with suitable example.
D) Explain Discrete Probability Distribution and Continuous Probability Distribution with suitable example.

- Q.3** A) What is Acceptance Sampling? List and explain advantages and disadvantages of Sampling technique over 100% Inspection. (07)
B) Control chart is one of the important quality control tool, Justify the Statement. (08)

OR

- B) Write a short not on "Process Capability Index". (08)

- Q.4** A) Write a descriptive note on control chart for variables. (07)

OR

- A) Write a descriptive note on CUSUM Chart. (07)

- B) The following data shows the number of defects found in the inspection of 10 wooden chairs.

Sample No	1	2	3	5	6	7	8	9	10
No. of Defects	8	6	7	8	6	9	8	4	7

(08)

Plot a suitable control chart with control limits. Write the interpretation of the control Chart.