

17/05/2019

Roll No. ....

**37057**

Printed Pages : 2

**BT-7/M-19**  
**STATISTICAL QUALITY CONTROL AND**  
**RELIABILITY**

**Paper-ME-405 E**

*Time allowed : 3 hours]*

*[Maximum marks : 100*

*Note : Attempt any five questions, selecting at least of one question from each unit.*

**Unit-I**

1. Write briefly on the contributions of any two quality gurus towards development of the concept of quality. What is a quality circle? 20
2. Briefly describe :
  - (a) Factors affecting quality 10
  - (b) Implementation of TQM 10

**Unit-II**

3. Write briefly on Pi chart and U charts. Also discuss the sensitivity of p chart. 20
4. Draw a suitable control chart for the given data :

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

**Unit-III**

5. How are sampling plans selected ? Describe the concept of multiple and sequential sampling. 20
6. Write briefly on :
  - (a) Acceptance number and its significance 4
  - (b) Acceptance sampling by attributes 8
  - (c) Acceptance sampling by variables 8

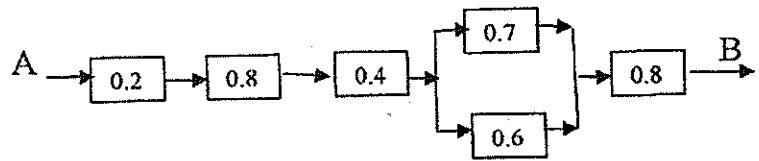
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Unit-IV

7. Write briefly on :
- (a) Factors affecting reliability. 10
  - (b) Availability and Maintainability. 10
8. Discuss the ways to control reliability during manufacture.  
Calculate the reliability of the system shown below : 20



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