Roll No:

BTECH (SEM VIII) THEORY EXAMINATION 2021-22

QUALITY MANAGEMENT

Time: 3 Hours

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief.

Define Quality. a. What do you mean by procurement? Explain. b. What is prototype? c. Define SWOT analysis. d. What is R-chart? e. Define Quality hierarchy. f. What is Zero defect? Explain. g.

SECTION B

2. Attempt any *three* of the following:

a.	What do you mean by evolution of quality control? Discuss with suitable
	example.
b.	What is Quality Management? Discuss its various functions in detail.
c.	Discuss various human factors in quality attitude of top management.
d.	What are control charts? Discuss.
e.	What are the obstacles in implementing TQM? How it can be overcome?

SECTION C

3. Attempt any one part of the following:

Discuss in brief the methods to ensure the manufacturing quality. (a) Describe the process of evaluation of supplies with example. (b)

4. Attempt any one part of the following:

Write a note on the organization structure and design of quality management. (a) Explain the following with example: (i). quality value and contribution, (ii). (b) Quality cost and its optimization.

5. Attempt any one part of the following:

(a)	What do you mean by process capability study? Discuss with some example.
(b)	Explain the construction of Xbar and R control charts. Where are they used?

 $7 \ge 1 = 7$



Total Marks: 70

 $7 \ge 3 = 21$ (

7 x 1 = 7

 $7 \ge 1 = 7$



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Attempt any *one* part of the following: 6.

(a)	In the manu	ufacture of armatures for e	lectric moto	ors, inspection results of 20			
	samples of	each having 100 units of a	rmature is	given in the following table			
	calculate the average fraction defective and the control limits construct, the p						
	chart and co	omment on the process.					
	Lot No.	No. of Defective	Lot No.	No. of Defective			
	1	5	11	4			
	2	10	12	8			
	3	11	13	4			
	4	16	14	2			
	5	8	15	5			
	6	7	16	5			
	7	6	17	3			
	8	6	18	9			
	9	7	19	7			
	10	5	20	12			
(b)	In a factory producing spark plug the number of defective found in inspection						
	of 20 lots of	f 100 each, is given below:	2V				
	of 20 lots of Lot No.	f 100 each, is given below: No. of Defective	Lot No.	No. of Defective			
	of 20 lots of Lot No. 1	f 100 each, is given below: No. of Defective 5	Lot No. 11	No. of Defective 4			
	of 20 lots of Lot No. 1 2	f 100 each, is given below: No. of Defective 5 10	Lot No. 11 12	No. of Defective 4 7			
	of 20 lots of Lot No. 1 2 3	f 100 each, is given below: No. of Defective 5 10 12	Lot No. 11 12 13	No. of Defective 4 7 8			
	of 20 lots of Lot No. 1 2 3 4	f 100 each, is given below: No. of Defective 5 10 12 11	Lot No. 11 12 13 14	No. of Defective			
	of 20 lots of Lot No. 1 2 3 4 5	f 100 each, is given below: No. of Defective 5 10 12 11 5	Lot No. 11 12 13 14 15	No. of Defective			
	of 20 lots of Lot No. 1 2 3 4 5 6	f 100 each, is given below: No. of Defective 5 10 12 11 5 6	Lot No. 11 12 13 14 15 16	No. of Defective 4 7 8 3 3 4			
	of 20 lots of Lot No. 1 2 3 4 5 6 7	f 100 each, is given below: No. of Defective 5 10 12 11 5 6 4	Lot No. 11 12 13 14 15 16 17	No. of Defective 4 7 8 3 3 4 5			
	of 20 lots of Lot No. 1 2 3 4 5 6 7 8	f 100 each, is given below: No. of Defective 5 10 12 11 5 6 4 7	Lot No. 11 12 13 14 15 16 17 18	No. of Defective 4 7 8 3 4 5 8			
	of 20 lots of Lot No. 1 2 3 4 5 6 7 8 9	f 100 each, is given below: No. of Defective 5 10 12 11 5 6 4 7 6	Lot No. 11 12 13 14 15 16 17 18 19	No. of Defective 4 7 8 3 4 5 8 6			
	of 20 lots of Lot No. 1 2 3 4 5 6 7 8 9 10	f 100 each, is given below: No. of Defective 5 10 12 11 5 6 4 7 6 3	Lot No. 11 12 13 14 15 16 17 18 19 20	No. of Defective 4 7 8 3 4 5 8 6 10			
	of 20 lots of Lot No. 1 2 3 4 5 6 7 8 9 10 i. Con	f 100 each, is given below: No. of Defective 5 10 12 11 5 6 4 7 6 3 struct a suitable control cha	Lot No. 11 12 13 14 15 16 17 18 19 20 art and state	No. of Defective 4 7 8 3 3 4 5 8 6 10 if the process is in control.			
	of 20 lots of Lot No. 1 2 3 4 5 6 7 8 9 10 i. Con ii. Dete	f 100 each, is given below: No. of Defective 5 10 12 11 5 6 4 7 6 3 struct a suitable control chater f 100 each, is given below: 5 10 12 11 5 6 3 struct a suitable control chater 10 12 11 12 11 12 11 12 11 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 10 12 11 10 12 11 10 12 11 10 12 11 10 12 11 10 12 10 10 10 10 10 10 10 10 10 10	Lot No. 11 12 13 14 15 16 17 18 19 20 urt and state re a quality	No. of Defective 4 7 8 3 3 4 5 8 6 10 if the process is in control. limit is not worse than 10%			

three times per thousand.

Attempt any one part of the following: 7.

(a)	Write short note on the following: (i) MTTF, (ii). Maintainability, (iii) Quality circle.
(b)	What is ISO-9000 and its concept to quality management?



$7 \ge 1 = 7$