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B. TECH.
(SEM VII)THEORY EXAMINATION 2018-19
TOTAL QUALITY MANAGEMENT

Time: 3 Hours ***Total Marks: 100***

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

SECTION A

Q.1 Attempt *all the* parts. **10 x2= 20**

a) State the dimensions of Quality?
b) What do you mean by review of design?
c) What is strategic sourcing?
d) How claim analysis is done?
e) What is the difference of reliability and maintainability?
f) What do you mean by control chart for variables and attributes?
g) What is the use of Ishikawa diagram and Pareto chart?
h) Differentiate between MTTR and MTTF.
i) What do you understand by Quality Audit?
j) Explain ISO-14000 Quality management system.

SECTION B

Q.2 Attempt any *three.* **3 x 10 = 30**

a) Explain the procurement procedure in detail with the help of flowchart.
b) What is TQM? Explain objectives of TQM.
c) What is control chart? Discuss application of various charts. Write down the advantages also.
d) Discuss the factors to be considered for organizational structure for Quality management.
e) A production manager at a tire manufacturing plant has inspected the number of defective tires in twenty random samples with twenty observations each. Following are the number of defective tires found in each sample:

Sample Number	Number of defective tires	Number of observations sampled
1	3	20
2	2	20
3	1	20
4	2	20
5	1	20
6	3	20
7	3	20
8	2	20
9	1	20
10	2	20
11	3	20
12	2	20
13	2	20
14	1	20
15	1	20
16	2	20
17	4	20
18	3	20
19	1	20
20	1	20

Construct a three-sigma control chart (z=3) or p-chart with this information.

SECTION C

Q.3 Attempt any one. **1 x 10=10**

a) Explain qQuality circles in detail.
b) Human factor is the most important element in Quality of a product. Justify.

Q.4 Attempt any one. **1 x 10=10**

a) What are the factors affecting reliability? Explain the evaluation of reliability. Discuss building reliability in the product.
b) Draw total product cost versus product reliability curve (bathtub curve). Explain in detail.

Q.5 Attempt any one. **1 x 10=10**

a) What is ISO? Explain Quality system ISO:9000.
b) State the objectives and challenges of JIT in detail.

Q.6 Attempt any one. **1 x 10=10**

a) Explain the objectives and steps of Taguchi method.
b) Discuss in detail the operating characteristics of Quality curves.

Q.7 Attempt any one. **1 x 10=10**

a) How the evaluation of supplier is done? Explain.
b) What do you understand by Quality functions? Explain in detail.