Question Paper Code : 47043

M.B.A. DEGREE EXAMINATION, JANUARY 2018

First Semester

BA 5107 – TOTAL QUALITY MANAGEMENT

(Regulations 2017)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. List out the importance of customer perspective on quality.

2. Define : Cost of Quality.

3. State the role of Quality Circle.

4. Write down the quality loss function.

5. Identify the significance of process capability.

6. Explain about Terotechnology.

7. Inform the stages of QFD process.

8. Give an example for POKA YOKE.

9. List down any two obstacles in TQM implementation.

10. What is QMS ?

PART – B

(5×13=65 Marks)

11. a) Describe the dimensions of product and service quality with appropriate examples. (13)

(OR)

b) Discuss about vision, mission and quality policy statement objectives, formulation and its impact on an organization. (13)

12. a) i) Discuss about signal to noise (S/N) ratio. (5)

   ii) Explain about 5S housekeeping principles. (8)

(OR)

   b) Depict the contributions of Deming, Ishikawa and Feigenbaum in quality movement. (13)

13. a) Discuss about business process improvement principles, process and limitations. (13)

(OR)

   b) Explain about the eight pillars of Total Productive Management. (13)

14. a) Illustrate about the seven old quality tools and its uses. (13)

(OR)

   b) Discuss about design and process FMEA process and its outcomes. (13)

15. a) i) Explain the types of quality audit. (5)

   ii) Discuss about key principles of ISO 9004 : 2000 QMS and its impact. (8)

(OR)

   b) i) Explain the role of quality council. (5)

   ii) Explain about TQM implementation stages. (8)

PART – C (1×15=15 Marks)

16. a) In a capability study of a machine used for grinding a shaft to a required diameter. Four consecutive pieces has been taken for eight days. The diameter of these shafts are as given below (in meter) : (15)

I	II	III	IV	V	VI	VII	VIII
0.509	0.504	0.489	0.513	0.552	0.480	0.516	0.508
0.502	0.505	0.506	0.516	0.516	0.484	0.489	0.499
0.521	0.525	0.486	0.482	0.476	0.518	0.513	0.466
0.469	0.468	0.497	0.483	0.472	0.510	0.495	0.480

Construct the X bar, R chart and comment the process.

[**Note** : Table values for Subgroup size n = 4: $A_2 = 0.73$, $A_3 = 1.63$, $d_2 = 2.059$, $D_3 = 0$, $D_4 = 2.28$]

(OR)

   b) Build the House of Quality (HoQ) for the procurement of bulb for the newly modified head lamp system of a luxury car. Necessary changes to be proposed for manufacture of reflector, material and process requirements in the electrical system. (15)

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