

| Reg. No.: | | | | | | | | | | | | |
|-----------|--|--|--|--|--|--|--|--|--|--|--|--|
|-----------|--|--|--|--|--|--|--|--|--|--|--|--|

${\bf Question\ Paper\ Code: X\ 67628}$

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020 Eighth Semester

Electronics and Communication Engineering MG 1301 – TOTAL QUALITY MANAGEMENT

(Common to Biotechnology, Chemical Engineering, Petrochemical Technology, Pharmaceutical Technology, Textile Technology Seventh Semester – Aeronautical Engineering, Automobile Engineering, Biomedical Engineering, Civil Engineering, Computer Science and Engineering, Mechanical Engineering, Production Engineering, Sixth Semester – Information Technology Fifth Semester – Electrical and Electronics Engineering, Electronics and Instrumentation Engineering and Instrumentation and Control Engineering) (Regulations 2008)

Time: Three Hours

Maximum: 100 Marks

Answer ALL questions

PART - A

 $(10\times2=20 \text{ Marks})$

- 1. What do you mean by quality by design?
- 2. What are the constituents of quality cost?
- 3. Differentiate between empowerment and delegation.
- 4. What are the roles of a team facilitator?
- 5. What are the outputs from a Pareto diagram?
- 6. What are the measures of central tendency?
- 7. What are the different types of benchmarking?
- 8. Write the objective of QFD.
- 9. Name any four key elements of ISO 9000.
- 10. Write short note on third party audit.

PART - B

(5×16=80 Marks)

| 11. | | | (16) |
|-----|------|---|------|
| | | (OR) | |
| | Í | "The applicability of TQM has limitations". Do you agree with this statement? Can TQM be implemented for service sectors? Discuss with suitable case study. | (16) |
| 12. | a) : | i) Draw the customers satisfaction organisational diagram and discuss. | (8) |
| | , | i) How can the customer complaints used to improve the quality of products and services? What are the various avenues available? | (8) |
| | | (OR) | |
| | b) | i) Explain with an example the implementation of PDSA cycle. | (8) |
| | i | i) What are the condition for selection and evaluation of suppliers? | (8) |
| 13. | a) : | i) Differentiate between chance causes and assignable causes of variations giving suitable examples. | (8) |
| | i | i) Briefly explain the relationship of process capability of tolerance. | (8) |
| | | (OR) | |
| | b) | i) Briefly explain the procedure to construct and interpret the R-chart. | (8) |
| | i | i) With a neat diagram explain how systematic reduction of process variability is achieved. | (8) |
| 14. | a) | i) Discuss the quality loss function for various quality characteristics. | (8) |
| | i | i) Explain the concept of Total Productive Maintenance (TPM). Describe the functions of TPM. | (8) |
| | | (OR) | |
| | b) | i) Explain the stages of FMEA in brief. | (8) |
| | i | i) Explain the concept of QFD and discuss the important steps involved in QFD process. | (8) |
| 15. | a) | i) Discuss any four clauses of ISO 9001 guidelines. | (8) |
| | i | i) Briefly explain about the preparation of documentation. | (8) |
| | | (OR) | |
| | b) | Briefly explain the following: | |
| | - | i) ISO 14000 | (8) |
| | i | i) QS 9000. | (8) |
| | | | |