B 479B2 **Total pages: 2** Register No: ..... SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS) (AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM) EIGHTH SEMESTER B.TECH. DEGREE EXAMINATION(R), MAY 2024 **Mechanical Engineering** (2020 SCHEME) **Course Code 20MET412** Course Name **Quality Management** Max. Marks 100 **Duration:3 Hours** PART A (Answer all questions. Each question carries 3 marks) Compare Manufacturing Quality and Service Quality. 2. List out the three basic elements for improvement as proposed by Crosby. 3. List out the various factors that affect supplier selection. 4. List out any three strategies to reduce Cost of Quality. What are self managing teams? 5. Dicuss the importance of implementing training for quality. 6. Explain Taguchi's method of quality management. 7. 8. Explain the importance of using scatter diagram. 9. List the major benefits of quality auditing. 10. Define ISO family of standards. PART B (Answer one full question from each module, each question carries 14 marks)

| MODULE I   |                                                                                                      |    |  |
|------------|------------------------------------------------------------------------------------------------------|----|--|
| 11.        | Elaborate the various challenges in TQM.                                                             | 14 |  |
|            | OR                                                                                                   |    |  |
| 12.        | Discuss Deming's 14 point program for improving quality.                                             | 14 |  |
|            | MODULE II                                                                                            |    |  |
| 13.        | Compare Six sigma with Lean six sigma.                                                               | 14 |  |
| OR         |                                                                                                      |    |  |
| 14.        | Discuss the barriers in successful strategic management implementation.                              | 14 |  |
| MODULE III |                                                                                                      |    |  |
| 15.        | Discuss employee empowerment. Explain the importance of employee empowerment in TQM.                 | 14 |  |
|            | OR                                                                                                   |    |  |
| 16.        | Explain with the help of an example, the importance of top management commitment in managing a team. | 14 |  |

| 17. | Describe how Control charts can be used for improving process capability.  OR                                             | 14 |
|-----|---------------------------------------------------------------------------------------------------------------------------|----|
|     |                                                                                                                           |    |
| 18. | With the help of a neat figure, explain affinity diagram ellaborating the steps involved in collecting and storing datas. | 14 |
|     | MODULE V                                                                                                                  |    |
|     |                                                                                                                           |    |
| 19. | Explain the benefits of ISO 9000 family of standards.                                                                     | 14 |
|     | OR                                                                                                                        |    |
| 20. | Describe the salient features of ISO 9001 family of standards.                                                            | 14 |
|     | ******                                                                                                                    |    |