

2072  
M.E. (Information Technology)  
Second Semester  
MEIT-2104: Software Quality Assurance

Time allowed: 3 Hours

Max. Marks: 50

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Part.

x-x-x

1. Attempt the following:-

- a). What is TQM? What are its principles?
- b). Define six sigma? What are its methodologies?
- c). What is Risk Monitoring?
- d). How can we measure customer satisfaction?
- e). What are CASE tools? What are the different categories of CASE tools? (5x2=10)

**PART-A**

2. a). What are Reviews? How are they important in SQA?  
b). List various metrics for measuring software Maintenance? Explain them. (5,5)
3. a). Describe the Cleanroom methodology for software development?  
b). What is defect prevention? Explain the process of defect prevention? (5,5)
4. a). Describe the process of reverse engineering? Why is it required?  
b). What is software Reliability? Differentiate between static reliability and dynamic reliability? (5,5)

**PART-B**

5. a). What is the significance of Control charts in data analysis? Explain Pareto diagrams and Cause and Effect Diagrams?  
b). What do you understand from the term Requirement Management? Explain the process of requirement management? (5,5)
6. Describe in detail: Unit testing, Integration Testing, Function Testing, System Testing and Regression Testing? (5,5)
7. a). Describe the difference between "known risks" and "predictable risks."? Describe the difference between risk components and risk drivers.  
b). Write short note on RMMM plan? (5,5)

x-x-x