

2023  
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. a). What are Formal Technical Reviews?
- b). Define Mean Time to Failure(MTTF) metric?
- c). What is CMM?
- d). What is the role of Configuration Audit in SCM?
- e). List the different types of Risks?

5x2=10

PART-A

2. a). What is SQA? What are the different activities performed in SQA?  
b). Define the term TQM? What are its principles. Explain? (5,5)
3. a). List various Product Quality metrics and explain them?  
b). What are Reliability growth models? Explain littlewood Model? (5,5)
4. a). Describe the process of reverse engineering? Why is it required?  
b). Explain the eight step methodology of object oriented development process? (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 Software Configuration Management? Explain the process of Change management? (5,5)
6. a). What is the difference between verification and validation? Which types of testing address verification. Which types of testing address validation?  
b). What is Black Box testing? What are the different types of Black Box testing strategies? Explain by considering suitable examples? (5,5)
7. a). Describe the difference between risk components and risk drivers.  
b). Explain the RMMM Plan? Can you think of a situation in which a high-probability, high-impact risk would not be considered as part of your RMMM plan? (5,5)

x-x-x