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SET/CSE/MIT/C-204

M.Sc. (IT) (Second Semester) Examination, 2024-25

SOFTWARE ENGINEERING AND PROJECT MANAGEMENT

Time : Two Hours] **[Maximum Marks : 60**

Note : Attempt *any four* questions. All questions carry equal *marks.*

1. (a) Explain Spiral model with its advantages and disadvantages.

   (b) Explain functional and non-functional requirements in terms of software engineering.

2. (a) What is Software architectural design? Explain with block diagram.

   (b) What is the need of coupling and cohesion? Also explain its types.

3. (a) What is integration testing? Explain in detail about the Top-Down Integration Testing.

(b) Briefly explain Bottom-up and Top-down software design strategy.

4. (a) Explain the object oriented and function oriented pipelining for module decomposition.

(b) Explain the structural components of a software test plan.

5. (a) Give four reasons why it is hardly ever cost-effective for companies to ensure that their software is free of faults.

(b) Discuss the differences between verification and validation, and explain why validation is a difficult process?

6. (a) Discuss in detail about Interface evaluation.

(b) List out any six software engineering techniques used for developing fault-free software for small and medium sized systems.

7. (a) Explain, why program inspections are an effective technique for discovering errors in a program? What types of errors are unlikely to be discovered through inspections?