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School of Computing Science and Engineering

Bachelor of Science in Computer Science
Semester End Examination - May 2024

Duration : 180 Minutes

Max Marks : 100

Sem VI - E1UP602B - Software Quality Management

General Instructions

Answer to the specific question asked

Draw neat, labelled diagrams wherever necessary

Approved data hand books are allowed subject to verification by the Invigilator

- 1) Who all are the stakeholders in software testing process K1 (2)
 - 2) Describe the typical participants and roles involved in a software review process. K2 (4)
 - 3) Explain the purpose of each type of software review, such as code review, design review, and requirements review K2 (6)
 - 4) Identify potential risks in a software development project? Provide examples of specific risk identification techniques K3 (9)
 - 5) How would you apply quality planning techniques such as quality checklists and quality assurance reviews to ensure that software development processes adhere to established quality standards? K3 (9)
 - 6) Judge the appropriateness of prioritizing software quality over rapid release cycles in software development. K5 (10)
 - 7) a) Examine the effectiveness of different path selection criteria in software testing. b) Use suitable example to justify your answer. K4 (12)
 - 8) a) Evaluate the effectiveness of function point analysis. b) Compared function point analysis with lines of code as a size-oriented measure for software cost estimation. K5 (15)
 - 9) Annual Change Traffic (ACT) in a software system is 18% per year. The initial development cost was 12 Lacs. Total life time of the software is 6 years. Some of the cost multipliers are given bellow: K5 (15)
 - i) Required Software Reliability very low = .75
 - ii) Database Size low = .94
 - iii) Application Experience High = .91
 - iv) Programmer Capability very high = .70
- Evaluate the total maintenance cost and total cost of the software system
- 10) a) Design a project planning process for a software development Project in the healthcare industry, considering patient safety, Privacy of patient medical history, Quality of service considerations. b) How would you establish quality assurance measures, risk mitigation strategies For the given project K6 (18)