

Register No: .....

Name: .....

**SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)**

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

**SIXTH SEMESTER INTEGRATED MCA DEGREE EXAMINATION(R,S), MAY 2024  
(2020 SCHEME)****Course Code : 20IMCAT302****Course Name : Introduction to Software Engineering****Max. Marks : 60****Duration:3 Hours****PART A***(Answer all questions. Each question carries 3 marks)*

1. What are the steps required for successful software engineering?
2. Write a short note on software project estimation.
3. Which process model, predictive or adaptive, is suited for projects with well defined static requirements and a well understood technology base where the scope, time and cost factors are clearly outlined from the beginning? Justify your answer.
4. Comment on RAD examining its advantages and disadvantages.
5. Write a short note on planning game.
6. What is JUnit? What are the features of JUnit?
7. What strategies can a Product Owner use to maximize the value delivered by the Development Team?
8. Write a short note on iteration planning.
9. Write a short note on Continuous Integration.
10. What is the need of DevOps?

**PART B***(Answer one full question from each module, each question carries 6 marks)***MODULE I**

11. Explain the cutover strategies in deployment. 6

**OR**

12. Explain the following. 6  
i) LOC based estimation  
ii) FP based estimation

**MODULE II**

13. Explain the different categories of development models based on the way they handle requirements. 6

**OR**

14. Explain the spiral model with a neat diagram. 6

**MODULE III**

15. What are the components of user stories? Comment on the template of user story. Explain the INVEST model for agile user stories. 6

**OR**

16. What is regression testing? Why is it important? Why should it be automated? 6

**MODULE IV**

17. Explain the various scrum roles in detail. 6

**OR**

18. Answer the following scenario based questions with respect to scrum. 6

i) The team is unable to deliver because they have a huge dependency on another team that has to do some pre-work before your team can start. How do you manage the situation?

ii) A user story is lacking the final designs, and the design team is promising to deliver on day 2. The ProductOwner also agrees with that and tries to push the user story to the sprint backlog. What will be your step?

iii) A member of the scrum team does not want to participate in the sprint planning meetings and considers meetings as a waste of time. How do you deal with that kind of attitude?

iv) How do you help in picking up the good user stories for the team members?

**MODULE V**

19. Write short notes on release management and configuration management in DevOps. 6

**OR**

20. Explain the concepts of continuous testing and continuous deployment (CD) in the context of DevOps. Discuss their significance in modern software development practices and their roles in enabling rapid and reliable delivery of software products. 6

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