



**KLE** Technological  
University

Creating Value  
Leveraging Knowledge

Earlier known as

B. V. B. College of Engineering & Technology

**School of Computer Science and Engineering**

**In Semester Assessment - I**

Course : Software Engineering

USN :

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Course Code : 22ECSC301

Semester : 5

Date of Exam : 29/09/2022

Duration : 75 mins

Note: (i) Answer any two full questions. (ii) Each full question carries equal marks.

Q.No.	Questions	Marks
Q1.a	Propose and justify the process model for each of the following software projects:  i) Tool to conduct online meetings, presentations and conference and classes. Software need to be developed in a limited duration. ii) Online transaction facility to be provided for senior citizens in the existing software used in a postal department. Improve the software to deal with the senior citizens while using a software.  You are expected to identify at least two characteristics for each of the software which ideally suits the choice of a particular process model.	07
Q1.b	List the keypractices of Extreine programming and explain any two in brief.	06
Q1.c	Web application for KLE Technological University need to be developed for managing the different programs, courses and students. Website is designed to provide required information to users gobally. Write six functional and four Nonfunctional requirements for the above scenario.	07
Q2.a	What are the two related approaches that are used to reduce the costs of rework in the software development? Dissus any one method of coping with change and changing system requirements for the software development.	08
Q2.b	Discover ambiguities or omissions in the following statement of requirements for part of a ticket-issuing system: An automated ticket-issuing system sells rail tickets. Users select their destination and input a credit card and a personal identification number. The rail ticket is issued and their credit card account charged. When the user presses the start button, a menu display of potential destinations is activated, along with a message to the user to select a destination. Once a destination has been selected, users are requested to input their credit card. Its validity is checked and the user is then requested to input a personal identifier. When the credit transaction has been validated, the ticket is issued.	06
Q2.c	Explain why test-first development helps the programmer to develop a better understanding of the system requirements. What are the potential difficulties with test-first development?	06
Q3.a	Explain why incremental development is the most effective approach for developing business software systems. Why is this model less appropriate for real-time systems engineering? Show how incremental approach is applied for the scenario given in Question 1(c). Development team has decoded to deliver a web application in two increments.	10
Q3.b	Describe use case diagram for " Exam.net is a tool that helps teachers to carry out digital online exams with their students.", consisting of at least two actors and six use cases. Write a use case description for any one of the use cases listed.	10