



## School of Computer Science and Engineering

Fall Semester 2023-24

Continuous Assessment Test – 2

SLOT: C1

Programme Name & Branch: B. Tech (Computer Science with Business Systems)

Course Name & code: Software Engineering Methodologies & CBS1005

Class Number (s): VL2023240103380, VL2023240103391

Faculty Name (s): Dr. Yoganand S. & Dr. Sivaprakash S.

Exam Duration: 90 Min.

Maximum Marks: 50

**General instruction(s):**

Any other specific instruction

| Q.No. | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Max Marks |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1.    | <p>1. Explain the improved version of model with all levels that supports bodies of knowledge and instantiations for improving the software process. (5)</p> <p>2. An automobile production company is running successfully for the past five years in which, the year wise maintenance should be done appropriately for making the production better. The various metrics for the fault maintenance like Mean Time To Failure, Mean Time To Repair are given as 120 and 180 hours respectively. Calculate Mean Time Between Failures. if MTTR is reduced to 20 hours then calculate the total system availability for the next set of production hours. (5)</p>                                           | 10        |
| 2.    | <p>Adam built an 5star hotel near a bus stand in Vellore city, He wanted to <u>automate</u> his hotel for attracting the customers. He wants all his <u>hotel features to be made visible to the public</u>, so that he can get more bookings. He decided to go with a mobile application for his hotel management to be easier. Evaluate the SRS document including the following chapter to ensure that all the automation and smart features has been added for the hotel management system.</p> <p>Chapter-1 (scope, purpose, abbreviations)</p> <p>Chapter-2 (Description, Functional Requirements, Non-Functional Requirements)</p> <p>Chapter-3 (User Interfaces, Characteristics, constraints)</p> | 10        |
| 3.    | <p>A famous car manufacturing company is looking for a software vendor who is expertise in making software for their <u>show room management</u>. Think yourself as an expert software vendor such that you can satisfy the car manufacturing company owner with your software model, Create the scenario-based design and behavior modelling (explain all possible states of the system) that are required by the car manufacturers for their new build and complete the deal.</p>                                                                                                                                                                                                                        | 10        |

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| 4. | <p>a) Explain the notations to draw the flow oriented diagram and apply it for the scenario given in question no:2 (5 Marks)</p> <p>b) The Chennai central railway station is equipped with ticket vendor system for the convenience of the passengers who frequently travel in train in order to avoid the long queue. Create the CRC cards for the same. (5 Marks)</p> | 10 |
| 5. | <p>Analyze the concepts of modularity and information hiding for the home main door automation scenario. (7 Marks)</p> <p>Explain the template for reusing the design in any other applications. (3 Marks)</p>                                                                                                                                                           | 10 |