A   Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code: 95C04

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2024

Third Semester

Computer Science and Business Systems

21UCB304– SOFTWARE ENGINEERING

(Regulations 2021)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. _____ is not suitable for accommodating any change?   CO1- U

   (a) RAD Model   (b) Waterfall Model   (c) Build & Fix Model   (d) Prototyping

2. _____ is a cyclic model and it is flexible changes are allowed?   CO1- U

   (a) RAD Model   (b) Waterfall Model   (c) Spiral Model   (d) Prototyping

3. The SRS document is also known as _____ specification   CO1- U

   (a) Black box   (b) White box   (c) grey box   (d) none of the above

4. Which one of the following is not a Requirements Engineering Task?   CO1- U

   (a) Negotiation   (b) Elaboration   (c) Specification   (d) Authentication

5. The importance of software design can be summarized in a single word   CO1- U

   (a) accuracy   (b) complexity   (c) efficiency   (d) quality

6. Which design model is equivalent to the detailed drawings of the access points and external utilities for a house?   CO1- U

   (a) architectural design   (b) component level design

   (c) data design   (d) interface design

7. When we have to stop the testing?   CO1- U

   (a)The faults have been fixed   (b) All the tests run

   (c) The time completed   (d) The risk is resolved

8. What are the different levels of Testing?   CO1- U

   (a) Integration testing   (b) Unit testing   (c) System testing   (d) All of the above

9. A schedule that has been defined at a degree of resolution that allows progress to be monitored a nd the project to be controlled, is called, CO1- U

   (a) Project tracking   (b) Project scheduling

   (c) Project network   (d) Project monitoring

10 Technical risks threaten the ____ of the software. CO1- U

   (a) System development   (b) Quality and timeliness

   (c) System integration   (d) All of the above

<div align="center">PART – B (5 x 2= 10 Marks)</div>

11 What are the features of a good SRS document? CO3- Ana

12 Analyze about the requirement engineering process and how the requirements are managed. CO3- Ana

13 List the principles of a software design. CO1- U

14 What are the Internal and External Views of Testing? CO1- U

15 List out the principles of project scheduling CO1- U

<div align="center">PART – C (5 x 16= 80 Marks)</div>

16 (a) Explain the process model that combines the element of waterfall and iterative fashion. CO2-App (16)

<div align="center">Or</div>

   (b) What are the necessities of Life cycle model? Elaborate on the various issues of Software life cycle CO2-App (16)

17 (a) Develop an online railway reservation system, which allows the user to select route, book/cancel tickets using net banking/credit/debit cards. The site also maintains the history of the passengers. For the above system, list and draw the use case scenario and model the above specification. CO4-C (16)

<div align="center">Or</div>

   (b) Develop the process of ordering a pizza over the phone. Draw the use case diagram and also sketch the activity diagram representing each step of the process, from the moment you pick up the phone to the point where you start eating the pizza. Include activities that others need to perform. Add exception handling to the activity diagram you developed. Consider at least two exceptions (e.g. delivery person wrote down wrong address, deliver person brings wrong pizza). CO4-C (16)

<div align="center">2</div>

18	(a)	Design a Dataflow diagram for online food ordering system	CO4-C	(16)
		Or		
	(b)	Design a Dataflow diagram for a "Library Management System". State and explain the functional requirements you are considering.	CO4-C	(16)
19.	(a)	What do you mean by Cyclomatic complexity? Explain Cyclomatic complexity computation procedures with examples.What is Verification and Validation?	CO3-Ana	(16)
		Or		
	(b)	What are the attributes of the good test? Explain the test case design. Discuss the differences between black box and white box testing.	CO3-Ana	(16)
20.	(a)	Explain about all COCOMO models	CO1-U	(16)
		Or		
	(b)	Describe steps involved in project scheduling process, project timeline chart and task network.	CO1-U	(16)

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