PRESIDENCY UNIVERSITY
BENGALURU

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SCHOOL OF ENGINEERING
MID TERM EXAMINATION - MAY 2023

Semester : Semester II - B.Tech CSE - 2022   **Date :** 18-MAY-2023
Course Code : CSE2014   **Time :** 2.00 PM - 3.30 PM
Course Name : Sem II - CSE2014 - Software Engineering   **Max Marks :** 50
Program : B.Tech. Computer Science and Engineering   **Weightage :** 25%

Instructions:
(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS   **(10 X 1 = 10M)**

1. Which of these are the 5 generic software engineering framework activities?
   a) Implement the client requirement as it is but report the same to your manager   (CO1) [Knowledge]
   b) Implement the requirement as it is and not report the same to your manager
   c) Reject the requirement and do nothing about it
   d) Explain the ethical conflict with the client while keeping the manager in loop and try to resolve the conflict before proceeding to specification phase
   e) communication, modeling, planning, construction, deployment
   f) communication, planning, modeling, construction, deployment
   g) analysis, designing, programming, debugging, maintenance
   h) analysis, planning, designing, programming, testing

2. In the waterfall, goals are defined for each phase by defining entry and exit criteria. And delivering artifacts phase wise. In iterative, the completion of analysis and design for a set of features is done by one team followed by completion of code and test by another team.What is the main defference in between them?

   a) Iterative model is simpler   (CO1) [Knowledge]
   b) Iterative model is faster
   c) Iterative model has feedback path
   d) None of the above

3. Which among the following represents a functional requirement?

   a) Product must generate monthly sales reports   (CO2) [Knowledge]

   b) Product must be able to generate sales report without much delay

   c) Product must have a simple interface

   d) None of the above

4. Which of the following models wouldn't be good for adapting to any change?

   a) Waterfall Model   (CO2) [Knowledge]

   b) Build & Fix Model

   c) Prototyping Model

   d) RAD Mode

5. There are numerous stakeholders in software. Stakeholder requirements will frequently be at odds with one another. Which of the following is necessary to resolve disputes?

   a) Resolve conflicts with mutual discussion and negotiations   (CO2) [Knowledge]

   b) Remove conflicting stakeholders

   c) Delete all conflicting requirements

   d) None of the above

6. What type of software provides service to other programs?

   a) AI software   (CO1) [Knowledge]

   b) PC software

   c) Embedded software

   d) System software

7. A document that outlines the functions and performance standards for the software. It also outlines the features the product must have to satisfy the demands of all stakeholders will include

   a) Use cases   (CO2) [Knowledge]

   b) Class diagram

   c) Sequence diagram

   d) all of above

8. Dynamic nature of software is a need for software engineering. What does the "dynamic nature" means

   a) Software keeps changing on its own without external inputs   (CO1) [Knowledge]

   b) The form a software product assumes evolves in accordance with change in client requirements, changes in technology, industry evolution

   c) The design team changes design frequently to check all possibilities in design

   d) None of the above

9. The software life cycle can be said to consist of a series of phases. The classical model is referred to as the waterfall model. Which phase defined as "The concept is explored and refined, and the client's requirements are elicited?"

   a) Requirements   (CO1) [Knowledge]

   b) Specification

   c) Design

   d) Implementation

10. A software contains

    a) Instructions   (CO1) [Knowledge]

    b) Data structures

    c) Documents describing operation

    d) All of the above

PART B

ANSWER ALL THE QUESTIONS   (4 X 5 = 20M)

11. Discuss any four differences between functional and non functional requirements. Take any software of your choice and list one functional and one non-functional requirements

                                                              (CO2) [Comprehension]

12. Explain the various activities performed in use case modeling.

                                                              (CO2) [Comprehension]

13. Explain about Core Principles of Software Development Life Cycle

                                                              (CO1) [Comprehension]

14. Distinguish between classical and iterative waterfall model

                                                              (CO1) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS   (2 X 10 = 20M)

15. ABC Software limited, has a customer who has provided well defined requirements to the developers. Developers have a confusion to decide which model to choose for this project. Choose the model best for the software and explain the model in detail.

                                                              (CO1) [Application]

16. If a traveller wants to reserve a berth or a seat, they should only buy tickets from authorised travel agencies or railway reservation offices. For all classes and trains, reservations can often be made up to 120 days in advance. Create a use case in the manner described above.

                                                              (CO2) [Application]