PRESIDENCY UNIVERSITY
BENGALURU

SET B

SCHOOL OF INFORMATION SCIENCE
END TERM EXAMINATION - JAN 2024

Semester : Semester I - 2023
Course Code : CSA4003
Course Name : Software Engineering
Program : MCA

Date : 10-JAN-2024
Time : 1:00 PM - 4:00 PM
Max Marks : 100
Weightage : 50%

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   5X4M=20M

1. Discuss the distinctions between Product and Process, exploring how these concepts differ and their respective roles within the context of project development.

(CO1) [Knowledge]

2. Explain the characteristics and stages of the Waterfall Model, discussing how it sequentially progresses through different phases in software development.

(CO1) [Knowledge]

3. Discuss the key ideas behind Data Modeling Concepts and their application, emphasizing their role in representing and organizing data in a structured manner for effective information management.

(CO2) [Knowledge]

4. In the context of application development, explain the roles and significance of Unit Testing, Integration Testing, and Validation Testing in ensuring software quality and functionality.

(CO3) [Knowledge]

5. Examine wearable devices and the trend towards miniaturization in computing platforms, discussing their practical uses and the significance of smaller, more portable computing technologies in the evolution of wearable technology.

(CO4) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS   **5X10M=50M**

6. Investigate the principles and practical applications of Agile methods, exploring how this iterative and collaborative approach to software development enhances project flexibility, responsiveness, and overall efficiency.

(CO1) [Comprehension]

7. Examine User Interface Design in the context of application development, highlighting its importance and methodologies in creating interfaces that are intuitive, visually appealing, and effectively support user tasks and goals.

(CO2) [Comprehension]

8. Examine White Box Testing in the context of application development, detailing its significance and processes in verifying the internal logic and code paths to enhance the overall robustness of software systems.

(CO3) [Comprehension]

9. Examine the practical applications of ubiquitous computing and ambient intelligence, analyzing how these technologies are implemented to create seamless and integrated user experiences in various contexts.

(CO4) [Comprehension]

10. Investigate the diverse utilization of BCI in medical and commercial settings, examining its role in advancing medical treatments and its contributions to novel solutions and experiences in the business realm.

(CO4) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS   **2X15M=30M**

11. Evaluate the concepts of Black Box Testing, White Box Testing, and Unit Testing, delving into their respective roles in ensuring software quality and reliability.

(CO3) [Application]

12. Investigate the complexities of auditory sensation, perception, and cognition, and their interplay in shaping user experiences within interactive systems.

(CO4) [Application]