REV-01
BCA/29/32

2025/05

SET A

BACHELOR OF COMPUTER APPLICATION
FOURTH SEMESTER
SOFTWARE ENGINEERING
BCA-404

[USE OMR FOR OBJECTIVE PART]

Duration: 1.30 hrs. **Full Marks: 35**

Objective **Marks: 10**

Time: 15 min. *1X10=10*

Choose the correct answer from the following:

1. What is the primary purpose of requirements gathering?
   a. To create a project budget
   b. To define what the system or project should do
   c. To allocate resources
   d. To develop a project schedule

2. Why is the cost usually higher in the Incremental Model?
   a. Due to repeated phases for each increment
   b. Because no testing is done
   c. Because it uses only one team
   d. No planning is involved

3. The activity that distributes estimated effort across the planned project duration by allocating the effort to specific software developing tasks is .....
   a. Project scheduling
   b. Detailed schedule
   c. Macroscopic schedule
   d. None of the mentioned

4. A description of each function presented in the DFD is contained in a .....
   a. data flow
   b. process specification
   c. control specification
   d. data store

5. In data flow diagram, which among the following process is at the most detailed level?
   a. Data flow
   b. interface
   c. Functional primitive
   d. Transform description

6. _____ defines the properties of a data object and take on one of the three different characteristics.
   a. data object
   b. attributes
   c. relationships
   d. data object and attributes

7. Which of the following is a benefit of code review?
   a. Reduced development time
   b. Improved code quality and maintainability
   c. Increased risk of defects
   d. Reduced communication among developers

8. In the Incremental Model, each module passes through which phases?
   a. Design and testing only
   b. Requirements, Design, Implementation, and Testing
   c. Only implementation
   d. Testing and maintenance

9. White Box techniques are also classified as
   a. Design based testing
   b. Structural testing
   c. Error guessing technique
   d. None of the mentioned

10. Boundary value analysis belong to?
   a. White Box Testing
   b. Black Box Testing
   c. White Box & Black Box Testing
   d. None of the mentioned

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(Descriptive)

Time : 1 hrs. 15 min. Marks : 25

[Answer question no.1 & any two (2) from the rest]

1. Describe classical waterfall model. 5

2. a) Why layered technology is required for software? What are the advantages of spiral model over the other? 4+2+4=10
   b) Describe the characteristics of a software.

3. What do you understand by white box testing & black box testing? Differentiate between them. 5+5=10

4. Write the rules for data flow diagram. Draw the context diagram for 'Student Information System'. 4+6=10

5. Write short notes on 5+5=10
   a) components of software
   b) Code standard & guideline

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