BACHELOR OF COMPUTER APPLICATION
Third Semester (Repeat)
SOFTWARE ENGINEERING
(BCA - 12)

Duration: 3Hrs.

Full Marks: 70

Part-A (Objective) =20
Part-B (Descriptive) =50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.

Marks: 50

Answer any *four* from *Question no.* 2 to 8
***Question no.* 1 is compulsory.**

1. Explain the characteristics of software testing fundamentals.   (10)

2. What is Software? Explain the characteristics and applications of software.

(2+8=10)

3. What is software reuse? Explain components and types of Case tools. (2+8=10)

4. What is Software Quality? Explain different elements of software quality assurance.

(3+7=10)

5. What is Software Process Model? What are the activities of process framework? Explain the Spiral model.   (2+3+5=10)

6. What are the three major categories of software engineering resources explain with a neat diagram? What are the objectives of Requirement analyses?   (5+5=10)

7. Explain white and Black box testing. Explain how Software testing strategy may also be viewed in the context of the Spiral with a neat diagram.   (3+7=10)

8. Explain the following terms:

   i) Direct measures and indirect measures of Software.   (5)

   ii) Reliability and Testability of software.   (5)

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Duration: 20 minutes　　　　　　　　　　　　　　　　**Marks – 20**

(PART A - Objective Type)

I. Choose the correct answer:　　　　　　　　　　　**1×20=20**

1. What is the goal of the requirement analysis and specification phase of software development life cycle?

   [A] Understanding the customer requirement and organize them in an informal document.

   [B] Analysing the cost of development.

   [C] Determining scope of the software.

   [D] None of the above.

2. What is the final outcome of the requirement analysis and specification phase?

   [A] Drawing the DFD　　　　　　　　[B] The SRS document

   [C] Design and Coding　　　　　　　[D] The user manual

3. An ER diagram depicts

   [A] Entities　　　　　　　　　　　　[B] Keys

   [C] Relationships　　　　　　　　　[D] All of the above

4. The database design activity deals with the design of the

   [A] Logical Database　　　　　　　[B] Physical Database

   [C] Both [A] & [B]　　　　　　　　[D] Only [B]

5. Testing can be applied to

   [A] Requirements　　　　　　　　　[B] Analysis

   [C] Design　　　　　　　　　　　　[D] Code

6. Which one of the following testing is performed by user?

   [A] Acceptance Testing   [B] Unit testing

   [C] Compatibility Testing   [D] None of these

7. The CASE tools are used for

   [A] System requirement analysis   [B] System designing

   [C] I/O design   [D] None of the above

8. The CASE repository

   [A]Works as storage   [B] Provide valuable information to project manager

   [C] Both [A] & [B]   [D] Only [B]

9. Central repository of CASE tools also serves as data dictionary.

   [A] True   [B] False

10. If a direct approach to software project sizing is taken, size can be measured in terms of

    [A] LOC (Line of code)   [B] FP (Function Point)

    [C] LOC & FP   [D] None of the mentioned

11. If an indirect approach is taken, then the sizing approach is represented as

    [A] LOC (Line of code)   [B] FP (Function Point)

    [C] Fuzzy Logic   [D] LOC & FP

12. The _____ defines quality of software in terms of the original specification of the product.

    [A] User view   [B] Product view

    [C] Value-based view   [D] Manufacturer's view

13. MTTF stands for

    [A] Minimum time to failure   [B] Mean time to failure

    [C] Maximum time to failure   [D] All of the above

14. The foundation for software engineering is the _____ layer.

   [A] Tools   [B] Methods

   [C] Process   [D] Quality Focus

15. Which of the following is not a product matrix?

   [A] Size   [B] Reliability

   [C] Functionality   [D] Productivity

16. SDLC stands for

   [A] Software design life cycle   [B] Software development life cycle

   [C] System design life cycle   [D] System development life cycle

17. Which of the following is not the characteristic of software?

   [A] Software does not wear out   [B] Software is flexible

   [C] Software is not manufactured   [D] Software is always correct

18. Management of software development is depending upon?

   [A] People   [B] Product

   [C] Process   [D] All of the Above

19. During software development which factor is most crucial?

   [A] People   [B] Product

   [C] Process   [D] Project

20. Project risk factor is considered in?

   [A] Waterfall model   [B] Spiral model

   [C] Prototyping model   [D] Iterative enhancement model

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