BCA
Third Semester
SOFTWARE ENGINEERING
(BCA- 302)

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. What is a prototype? Under what circumstances it is beneficial to construct a prototype? Does the construction of prototype always increase the overall cost of software development?   3+4+3=10

2. Define the decision table. What is the difference between decision table & decision tree.   5+5=10

3. Discuss the objective of modular software design. What do you mean by the terms cohesion & coupling in context of software design.   5+5=10

4. For what purpose CASE tools are used? State the benefits & architecture of using CASE tools.   4+6=10

5. What do you understand by white box testing & black box testing? Differentiate between them.   7+3=10

6. The basis path testing comes under which type of testing? Explain the types of calculating cyclomatic complexity with the help of an example.   2+8=10

7. What is SDLC? Discuss the generic waterfall model.   3+7=10

8. Discuss the various key process areas of CMM at various maturity levels.   10

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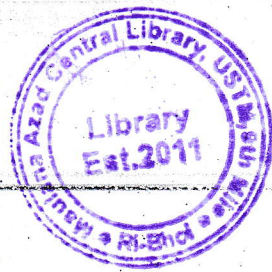
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Duration: 20 minutes

Marks – 20

(PART A - Objective Type)

I. Choose the correct answer:

1×5=5

1. Glass box testing is _____ and behavioral testing is _____.

    a. Black box, white box

    b. White box, black box

    c. White box, Alpha box

    d. Alpha testing, beta testing

2. "Place the _____ in control"- is an important guideline for Interface Design.

    a. Interface   c. user

    b. Memory load   d. All of these

3. Software is a _____ rather than _____.

    a. Physical, logical   b. Logical, physical

    c. both   d. none

4. _____ is concerned with the practicalities of developing and delivering useful software.

    a. System   b. System Software

    c. Software Engineering   d. Software

5. Software delivers the most important product of today, which is _____.

    a. Data   b. System   c. Information   d. both a and c

II. Fill In The Blanks: 1×12=12

6. RAD is the abbreviation of _____

7. _____

_____ is the application of well understood scientific methods to the

construction, operation, modification and maintenance of useful devices and

systems.

8. _____model   has

the advantage that it can result in better testing because testing each increment is

likely to be easier than testing the entire system.

9. Incremental model combines _____ _____

and _____ model.

10. In spiral model, the task of_____is

to obtain customer feedback.

11.In _____ system

components and their interactions are documented.

12._____model has the

advantage that it can result in better testing because testing each increment is likely

to be easier than testing the entire system.

13.Relationship between entities are-_____, _____

& _____.

14.A spiral model has _____ number of phases of

development.

15.Testing cannot show absence of _____and

_____

16. "Are we building the right product?" is _____
and "Are we building the product right?" is _____.

17. Software maintenance has the types of _____,
_____ and _____.

III. Define True /False: 1×3=3

18. "Software doesn't wear out"- is a characteristics of software.

Ans:-_____.

19. "It is not appropriate when technical risk is high"-is a disadvantage of spiral model.

Ans:-_____

20. "It should be used to model the way in which data is processed in the existing system at analysis level"- is a property of DFD.

Ans:-_____

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