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JAMIA HAMDARD

Department of Computer Science and Engineering
School of Engineering Sciences and Technology
New Delhi 110062

ODD Semester Examination-2022

BCA 501 (FUNDAMENTALS OF SOFTWARE ENGINEERING)

Time 3 hrs

Maximum Marks:75

Course Outcomes:

- CO1. To develop an understanding of software engineering, software crisis, SDLC. Understanding the concept of software project planning – feasibility analysis, requirement analysis, SRS documents.
- CO2. Come to know the software designing strategies – structured analysis, structured design, DFD, structure chart.
- CO3. Understand concept of Project Management along with software testing, maintenance, and back-up.

Section(A)

Attempt all questions.

35*1=35

1. DFD stands for _____
2. SQA stands for _____
3. Spiral model involve _____ assessment.
4. Waterfall model does not involve _____ assessment.
5. Feasibility Study means _____
6. SRS stands for _____.
7. E- R diagram stands for _____
8. Requirements Analysis is an sequential Process. T/F
9. _____ is a measure of the degree of interdependence between modules.
10. A software engineer must design the modules with the goal of low cohesion and low coupling (T/F)
11. DFD stands for _____
12. Define Coupling in Software design.
13. Alpha and Beta testing are types of _____ testing.

14. QFD stands for _____.
15. Hardware is more reliable than Software T/F
16. The first phase of the software development life cycle is the requirement analysis(T/F)
17. RAD stands for _____
18. Software Re engineering is _____.
19. Spiral model covers Risk analysis (T/F).
20. The purpose of a project plan is to maintain control of a project.(T/F).
21. Cohesion is a measure of the external strength of a module with the notion that maximal, or functional, cohesion is the goal.(T/F)
22. A ____ test is performed for each of the smallest units of code?
23. SDLC stands for _____
24. Computer-aided software engineering (CASE) tools automate the hardware engineering process.(T/F)
25. White-box testing evaluates specific execute item logic to guarantee its proper functioning.(T/F)
26. White box design is also called as _____.
27. Software engineering is the systematic application of tools and techniques in the development of computer-based applications.
28. Waterfall model is an Evolutionary process model (T/F).
29. LOC is stands for _____
30. Function point is a Software _____
31. CASE tools stands for _____
32. Validation is _____
33. Use case diagrams are used to depict _____
34. Software is a Programme (T/F).
35. Alpha testing is carried out at _____

Section(B)Attempt any **FOUR** questions.**4x5=20**

S.No.	Question	Marks	CO	BL
1	Explain the importance of Software Engineering in designing Software.	5	CO2	L1
2	Define Quality. Discuss the MC-Call model for Quality of Software.	5	CO1	L1
3	Write short notes on the following a) Object oriented Software design b) QFD and FAST	5	CO2	L2
4	Differentiate the following: a) Software and Programme b) Bottom up and Top down Software design	5	CO2	L3
5	Discuss the Software and Hardware reliability in detail?	5	CO1	L1
6	Discuss the following testing strategies: a) Black box testing b) White box testing	5	CO3	L5

Section(C)**2x10=20**Attempt any **TWO** questions.

S.No.	Question	Marks	CO	BL
1	Discuss the following models for Software Engineering. a) Spiral Model b) Waterfall Model	10	CO1	L4
2	Discuss the significance and use of Requirements engineering? Consider the Problem of Hospital Management system and design the following: a) Problem Statement b) DFD	10	CO1	L1
3	Discuss the term Modularity with a suitable example in terms of Software Engineering? Write short note on any one of the following	10	CO2	L3

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	a) CMM <i>or</i> b) Verification and Validation			
4	Compute the Function Point of the project by considering the project with the following parameters:	10	CO3	L6

1) External inputs

20 with low complexity, 18 with high complexity

2) External Outputs

19 with average complexity, 10 with low complexity

3) External Inquiries

35 with high complexity

4) Internal logical files

28 with low complexity, 19 with high complexity

5) External Interface files

11 with low complexity, 14 with high complexity

In addition to this the system requires

- a) Master files to be updated always
- b) Incidental distributed Processing functions
- c) High Security

Other CAF are treated as average.

Functional units	Low	Avg	High
EI	3	4	6
EO	4	5	7
EQ	3	4	6
ILF	7	10	15
EIF	5	7	10

Functional Units with Weighing factors

BLOOMS TAXANOMY LEVELS (BL)

1-REMEMBERING, 2-UNDERSTANDING, 3-APPLYING, 4-ANALYSING,

5-EVALUATING, 6-CREATING