



K24U 0831

Reg. No. :

Name :



**IV Semester B.C.A. Degree (CBCSS – OBE – Regular / Supplementary/
Improvement) Examination, April 2024
(2019 to 2022 Admissions)**

**Core Course
4B08BCA : SOFTWARE ENGINEERING**

Time : 3 Hours

Max. Marks : 40

**PART – A
(Short Answer)**

Answer **all** questions.

(6×1=6)

1. Define software.
2. What is meant by concept exploration in software development ?
3. What is the significance of requirement engineering activity ?
4. Differentiate between object oriented design and function oriented design.
5. What is meant by aggregation of classes ?
6. Define the term 'test case'.

**PART – B
(Short Essay)**

Answer **any 6** questions.

(6×2=12)

7. Define incremental software model.
8. What does win-win mean in the context of negotiation during the requirements engineering activity ?
9. What are the basic guidelines for conducting meeting of requirements gathering ?
10. Explain the consequences of inconsistencies in the software requirements specification.

P.T.O.



11. Explain the design phase in function oriented design.
12. Explain the following in the context of software design description :
 i) Design constraint
 ii) Design entity (1+1)
13. Explain inheritance property in object oriented designing.
14. Justify the benefit of mixed integration testing.

Max Marks : 40

PART - C

Time : 3 Hours

(Essay)

Answer any 4 questions :

(4x3=12)

15. What is software process ? List out the activities involved in a software process.
16. Explain the three levels of software design.
17. Explain the design process of object oriented designing.
18. Illustrate the concept of composition in object oriented designing.
19. Compare and contrast bottom-up and top-down integration testing strategies.
20. i) Describe data flow based testing.
 ii) Explain definition - use chain of a variable. (2+1)

PART - D

(Long Essay)

Answer any 2 questions :

(2x5=10)

21. What are the desirable characteristics of well-engineered software ?
22. Explain the outcomes of requirements gathering phase.
23. Describe various cohesion types.
24. Elaborate on black box testing and black box test case designing.



K23U 1075

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4B08BCA : SOFTWARE ENGINEERING

Time : 3 Hours

Max. Marks : 40

PART – A

Short answer. Answer **all** questions.

(6×1=6)

1. What is meant by SRS ?
2. In _____ testing small modules are tested in isolation.
3. Risk management is an important feature of _____ model.
4. Actors are represented as stick figure in _____ diagram.
5. In _____ testing we ignore the internal structure of the code.
6. Explain alpha testing.

PART – B

Short essay. Answer **any 6** questions.

(6×2=12)

7. State the difference between a program and a software.
8. Explain waterfall model.
9. What is a prototype ?
10. What is meant by context diagram ?
11. List out any 4 design notations.

P.T.O.

K23U 1075



12. What is an Object ?

13. What is a test case ?

14. What is the main difference between black box testing and white box testing ?

PART - C

Essay. Answer any 4 questions

(4×3=12)

15. Discuss the difference between waterfall model and Increment process model.

16. What is meant by requirement elicitation? Discuss any 1 elicitation techniques in detail.

17. Explain various steps of requirement analysis.

18. Explain the importance and objectives of design phase.

19. What are the various symbols used in DFD. Explain Level0, Level1 and Level2 diagrams and its importance ?

20. Briefly explain boundary value analysis

PART - D

Long essay. Answer any 2 questions.

(2×5=10)

21. Discuss the characteristics of Software comparing it with that of the hardware.

22. Describe (a) Prototyping model and (b) RAD model.

23. Write notes on (a) use case diagram and (b) activity diagram.

24. What is structural testing ? Write notes on flow graph, DD path graph and Cyclomatic Complexity.



K22U 1510

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Time : 3 Hours

Max. Marks : 40

**PART – A
(Short Answer)**

Answer **all** questions : **(6×1=6)**

1. What do you mean by Software ?
2. _____ document is the final outcome of the requirements analysis and specification phase.
3. The GUI part of software system is almost always developed using _____ model.
4. ADT stands for _____
5. RAD stands for _____
6. DFD stands for _____

**PART – B
(Short Essay)**

Answer **any 6** questions : **(6×2=12)**

7. What is functional independence of modules ?
8. What is the main objective of code walk-through ?
9. What do you mean by testing ?
10. Explain control flow graph.
11. What do you mean by feasibility study ?

P.T.O.

K22U 1510



12. What do you mean by multiple inheritance ?
13. What do you mean by structured programming ?
14. How is the SRS document validated ?

PART – C
(Essay)

Answer **any 4** questions :

(4×3=12)

15. What is the use of software documentation ?
16. Explain importance of standard style of coding.
17. Explain SDLC.
18. Explain main two approaches in software design.
19. What is the role of requirement analysis in software design ?
20. Mention the characteristics of a good software design.

PART – D
(Long Essay)

Answer **any 2** questions :

(2×5=10)

21. Levels of software product testing.
 22. Explain different approaches of software design.
 23. Characteristics of a good SRS document.
 24. Discuss the life cycle of classical waterfall model.
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K21U 1074

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(2019 Admission Only)
Core Course
4B08BCA : SOFTWARE ENGINEERING**

Time : 3 Hours

Max. Marks : 40

PART – A

(Short Answer)

Answer all questions.

(6×1=6)

1. SDLC stands for
2. What is Slack Time ?
3. Explain Unit Testing.
4. SRS document is formal specification of system. True or False.
5. UML stands for
6. RAD stands for

PART – B

(Short Essay)

Answer any 6 questions.

(6×2=12)

7. What do you mean by Software engineering ?
8. Differentiate Programs and Products.
9. Discuss the importance of feasibility study in software development.
10. Explain Cohesion and Coupling.
11. Explain Multiple Inheritance.

P.T.O.

K21U 1074



12. What is code inspection ?
13. Explain Alpha and beta testing.
14. What is the need of validation ?

PART - C

(Essay)

Answer any 4 questions.

(4×3=12)

15. Explain different types of Software Development Projects.
16. What is requirement analysis ?
17. Explain main classifications of design activities.
18. Explain different approaches of software design.
19. Advantages of object oriented design.
20. Differentiate verification and validation.

PART - D

(Long Essay)

Answer any 2 questions.

(2×5=10)

21. Discuss different software life cycle models.
22. Explain different types of testing.
23. Explain importance and objectives of software design.
24. Discuss various steps of requirement analysis.