

**17U669S**

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Name: .....

Reg. No.....

**SIXTH SEMESTER B.C.A. DEGREE EXAMINATION, APRIL 2020**

(CUCBCSS-UG)

(Supplementary/Improvement)

**CC15U BCA6 B14 - SOFTWARE ENGINEERING**

Computer Application – Core Course

(2015, 2016 Admissions)

Time: Three Hours

Maximum: 80 Marks

**PART A (Objective Type)**

Answer *all* questions. Each question carries 1 mark.

1. The packing of data and functions into a single unit in a program is known as:  
(a) Polymorphism      (b) abstraction      (c) encapsulation      (d) inheritance.
2. COCOMO estimation model can be used to estimate which one of the following  
(a) LOC      (b) Effort      (c) Function Points      (d) Defect density
3. The main objective of \_\_\_\_\_ is to discover the algorithmic and logical errors in the code
4. Consider the sentence: A book has one or more pages. Which of the following concepts characterize it best?  
(a) Inheritance      (b) Specialization      (c) Association      (d) Composition
5. Which of the following activity spans all stages of a software development life cycle (SDLC)?  
(a) Coding      (b) Testing  
(c) Project Management      (d) Design
6. Which one of the following type of Cohesion can be considered as the strongest cohesion?  
a) Logical      (b) Coincidental      (c) Temporal      (d) Functional
7. The process of collecting information about software requirements from different individuals such as users and stakeholders is known as \_\_\_\_\_
8. Which of the following is a black-box testing approach?  
(a) Path testing      (b) Boundary value testing  
(c) Mutation testing      (d) Branch testing
9. \_\_\_\_\_ is the most expensive phase of the software life cycle.
10. A DFD depicts which of the following?  
(a) Flow of data      (b) Flow of control  
(c) Flow of statements      (d) None of the above

**(10 × 1 = 10 Marks)**

**PART B (Short Answer Type)**

Answer *all* questions. Each question carries 2 marks.

11. Draw an example DFD with three levels?
12. Distinguish between coupling and cohesion.
13. What is the difference between top-down and bottom-up integration testing approaches?
14. What are the main advantages of using CASE tools?
15. What are characteristics of good software design?

**(5 × 2 = 10 Marks)**

**PART C (Short Essay Type)**

Answer any *five* questions. Each question carries 4 marks.

16. What is code review?
17. What is Formal System Specification?
18. Briefly explain Agile Models?
19. What are project estimation techniques?
20. Explain the main difference between the architectural designs, high level design of a software system?
21. What is the difference between process metrics and product metrics?
22. What is project scheduling?
23. What are the different types UML diagrams?

**(5 × 4 = 20 Marks)**

**PART D (Essay Type)**

Answer any *five* questions. Each question carries 8 marks.

24. Explain any two software lifecycle model
25. Explain function oriented design
26. Explain Testing? Explain different strategies for testing.
27. What are the different categories of Risk Management? How can risk be effectively identified by a project manager?
28. Explain SRS document in detail?
29. Explain ISO 9000 certification and discuss the relative merits with SEI CMM based quality assessment?
30. What are the different types of maintenance that a software product might need? Why is this maintenance required?
31. Briefly outline the important steps involved in developing a software system using a popular object-oriented design methodology?

**(5 × 8 = 40 Marks)**

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