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**GN-451**

106419

V Semester B.C.A. Examination, December - 2019  
(CBCS) (Y2K14) (F+R)

**COMPUTER SCIENCE**

**BCA 502 : Software Engineering**

Time : 3 Hours

Max. Marks : 100

**Instruction :** Answer *all* Sections.

**SECTION - A**

I. Answer **any ten** questions.

**10x2=20**

1. What is Software Engineering ?
2. Differentiate between generic product and customised product.
3. Define requirement engineering process.
4. What are the objectives of prototyping ?
5. Define ethnography.
6. Differentiate between Generic model and Reference model.
7. What is adaptability ?
8. What are the characteristics of GUI/UI ?
9. What is RGM ?
10. What is the difference between failure and fault ?
11. What is Alpha testing ?
12. Define Quality Assurance.

**P.T.O.**

**SECTION - B****II.** Answer **any five** questions.**5x5=25**

13. Explain IEEE structure of SRS.
14. Write a note on risk management.
15. What is coupling ? Explain types of coupling.
16. Explain object-oriented and function oriented design.
17. What do you mean by fault tolerance ? Write a detailed note on approaches to fault tolerance.
18. Describe clean room software development process with its advantages and disadvantages.
19. Describe Design principles.
20. Explain different types of software maintenance.

**SECTION - C****III.** Answer **any three** questions.**3x15=45**

21. (a) Explain the different phases of SDLC. **8+7**  
(b) Explain the classification of Non-functional requirements.
22. (a) With neat diagram explain Spiral model. **10+5**  
(b) Write a short notes on User-Interface design activities.
23. (a) What is Software reliability metrics ? Explain the different types of software reliability metrics. **10+5**  
(b) Explain the classification of failures.
24. (a) Write a note on verification and validation model. **8+7**  
(b) Explain evolutionary and throw-away prototyping.
25. (a) Explain COCOMO model in detail. **10+5**  
(b) What is Cohesion ? Explain different types of Cohesion in brief.

**SECTION - D****IV.** Answer **any one** question.**1x10=10**

26. Explain the requirement engineering process with neat diagram.
27. Explain different test strategies.