



NS – 612

V Semester B.C.A. Degree Examination, Nov./Dec. 2016  
(CBCS) (2016-17 and Onwards)  
COMPUTER SCIENCE  
BCA 502 : Software Engineering

Time : 3 Hours

Max. Marks : 100

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

SECTION – A

Answer **any ten** questions. **Each** question carries **two** marks : (10×2=20)

1. What is customized software product ? Give an example.
2. What is COTS ?
3. What is feasibility study ?
4. What is 4GL ?
5. Define coupling.
6. What are OOD and OOP ?
7. What is user interface prototyping ?
8. Difference between fault and failure.
9. What do you mean by cyclometric complexity ?
10. What is interface testing ?
11. Define quality planning.
12. What is software maintenance ?

SECTION – B

Answer **any five** questions. **Each** question carries **five** marks : (5×5=25)

13. Discuss the challenges of software engineer.
14. Write a note on system reliability engineering.
15. Explain the phases of requirement elicitation and analysis process.

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16. Explain the methods for object identification.
17. Write a short note on user interface design.
18. Explain reliability growth modeling with its advantages.
19. Explain thread testing with a diagram.
20. Explain quality assurance in brief.

## SECTION – C

Answer **any three** questions. **Each** question carries **fifteen** marks : **(3×15=45)**

21. Explain spiral model with a neat diagram. Discuss its advantages and disadvantages. 15
22. a) Explain various requirement validation techniques. 9  
b) Explain evolutionary prototyping with a diagram. 6
23. a) Explain different types of cohesion with example. 9  
b) Explain functional oriented design with example. 6
24. a) Describe the five types of user system interaction. 8  
b) Explain four types of software reliability matrices. 7
25. a) Explain any two types of software testing. 8  
b) Explain quality control in brief. 7

## SECTION – D

Answer **any one** question. **Each** question carries **ten** marks : **(1×10=10)**

26. Explain waterfall model with a neat diagram. Mention its merits and demerits. 10
27. Write short note on :
  - a) Risk Management 5
  - b) COCOMO model. 5