**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: (10x2=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 cyclomatic 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: (5x5=25)  

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

P.T.O.
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: 

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

SECTION – D

Answer any one question. Each question carries ten marks: 

27. Write short note on:
   a) Risk Management 
   b) COCOMO model.
V Semester B.C.A. Degree Examination, Nov./Dec. 2015
(Y2K8 Scheme) (F + R)
BCA 501 : SOFTWARE ENGINEERING
(100 – 2013-14 and Onwards) (90 – Prior to 2013-14)

Time : 3 Hours Max. Marks : 90/100

Instructions : Section – A, B, C is common to all. Section – D is applicable to the students who have admission in 100 marks.

SECTION – A

Answer any ten questions. Each question carries 2 marks. (10x2=20)

1. What is software product? Name two types of software product.
2. What is the difference between software engineering and system engineering?
3. What is system decommissioning?
4. What are functional requirements? Give one example.
5. Define cohesion and coupling.
6. What is test case? Give one example for test case.
7. Define volatile requirement.
8. List different phases of project management.
9. What is quality assurance? What is the purpose of quality assurance?
11. Write any two characteristics of GUI.
12. What is fault detection and recovery?

SECTION – B

Answer any five questions. Each question carries 5 marks. (5x5=25)

13. Discuss the challenges of software engineer.
14. Explain system procurement process in detail.
15. Explain prototyping model.
16. Describe any two styles of user system interaction.
17. What is risk identification? Explain its techniques.
18. Write a short note on black box testing.
19. Explain different types of interface errors.
20. Explain different types of software reliability metrics.

SECTION – C

Answer any 3 questions: \((3\times15=45)\)

21. Explain spiral model with neat diagram. Discuss advantages and disadvantages. \((15)\)

22. a) Explain requirement elicitation and analysis process. \((8)\)
    b) Discuss object oriented design process in detail. \((7)\)

23. a) Explain IEEE structure of SRS. \((10)\)
    b) Write SRS for library system. \((5)\)

24. a) Explain the contents of test plan. \((8)\)
    b) Explain different levels of testing. \((7)\)

25. a) Explain quality control in detail. \((8)\)
    b) Write a short note on software productivity. \((7)\)

SECTION – D

Answer any 1 question. Each question carries ten marks. \((1\times10=10)\)

26. Explain the fundamental process activities involved in SDLC with neat diagram. \((10)\)

27. Write a short note on:
   a) Context model. \((5)\)
   b) COCOMO model. \((5)\)