V Semester B.C.A. Degree Examination, November/December 2014
(Y2K8 Scheme)
COMPUTER SCIENCE
BCA 501 – Software Engineering
100 marks-2013-14 & Onwards
90 marks-Prior to 2013-14

Time : 3 Hours

Max. Marks : 90/100

Instructions : 1) Section **A, B, C** is common to **all**. Section **D** is applicable to the students who have taken admission in 2011-2012.
2) **100** marks for students of 2011-2012 and onwards
90 marks for repeaters prior to 2011-2012.

SECTION – A

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

1. Define Software.

2. What do you mean by Software Requirement Definition ?

3. Write short note on factors effecting feasibility study.

4. What is SDLC ? Briefly explain.

5. What are the different types of system integration ?

6. What are the characteristics of a prototype ?

7. What is cohesion ?

8. Define DFD.

9. Briefly explain about GUI.

10. Differentiate between Fault and Failure.

11. Define software reliability matrix.

12. Define risk in Software Engineering.

P.T.O.

SECTION – B

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

13. Explain iterative enhancement model of software process.

14. Explain the system design process with diagram.

15. Explain the IEEE structure of an SRS document.

16. Explain the Requirement Validation techniques.

17. Describe two types of prototyping with advantages and disadvantages.

18. What are the design principles ? Explain.

19. Differentiate between white box and black box testing.

20. Explain the different types of software maintenance.

SECTION – C

Answer **any 3** questions. (3×15=45)

21. Explain various steps of SDLC with a neat diagram. 15

22. Explain the requirement Engineering process. 15

23. a) Explain two types of Reliability Growth Modelling. 7
    b) Explain Reliability Matrix. 8

24. a) Explain the contents of test plan template. 9
    b) What are the levels of Testing ? 6

25. a) Explain COCOMO Model. 10
    b) Write a note on Quality Assurance. 5

SECTION – D

Answer **any one** question. (1×10=10)

26. Explain system Engineering process with a diagram.

27. Discuss on requirement elicitation and analysis process.