



SN – 663

V Semester B.C.A. Degree Examination, Nov./Dec. 2017  
(2016-17 and Onwards) (CBCS) (F + R)  
BCA 502 : SOFTWARE ENGINEERING

Time : 3 Hours

Max. Marks : 100

**Instruction : Answer all Sections.**

SECTION – A

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

- 1) Define system.
- 2) What are the two types of software products ?
- 3) What is system decommissioning ?
- 4) Mention two advantages of prototype model.
- 5) Define cohesion.
- 6) Define object and class.
- 7) What are the characteristics of GUI ?
- 8) Define SRS.
- 9) Define Risk.
- 10) Differentiate between verification and validation.
- 11) Define reliability.
- 12) What is a test case ?

SECTION – B

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

- 13) Explain waterfall model with its advantages and disadvantages.
- 14) What are volatile requirements ? Explain the classification of volatile requirements.
- 15) Explain the different phases of system design process with a diagram.
- 16) What is fault tolerance ? Explain the two approaches to software fault tolerance.
- 17) Differentiate between black box and white box testing.

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- 18) Explain the quality characteristics of design.
- 19) Describe different requirement validation checks.
- 20) Explain types of software maintenance.

## SECTION – C

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

- 21) a) Explain requirement elicitation and analysis process of requirement engineering with diagram. (8+7)
- b) Explain IEEE structure of SRS document. (8+7)
- 22) a) Explain design principles in detail. (8+7)
- b) Explain two types of prototyping with advantages and disadvantages. (8+7)
- 23) a) Explain different reliability metrics. (7+8)
- b) Explain reliability growth modeling. (7+8)
- 24) a) Write a note on object oriented design concept. (7+8)
- b) Explain different styles of user system interaction. (7+8)
- 25) a) Explain various levels of testing. (6+9)
- b) Explain the contents of test plan template. (6+9)

## SECTION – D

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

- 26) Explain COCOMO model in detail.
- 27) Explain system engineering process with a neat diagram.