



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.
b) Explain IEEE structure of SRS document. (8+7)
- 22) a) Explain design principles in detail.
b) Explain two types of prototyping with advantages and disadvantages. (8+7)
- 23) a) Explain different reliability metrics.
b) Explain reliability growth modeling. (7+8)
- 24) a) Write a note on object oriented design concept.
b) Explain different styles of user system interaction. (7+8)
- 25) a) Explain various levels of testing.
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.
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