



SN – 673

V Semester B.C.A. Degree Examination, Nov./Dec. 2017
(Repeaters) (Y2K8 Scheme)
(BCA 501) : SOFTWARE ENGINEERING

Time : 3 Hours

Max. Marks : 90/100

- Instructions :** 1) Section – A, B, C is common to all.
2) Section – D is applicable to the students **who** have taken admission in 2011-12 and onwards.

SECTION – A

- I. Answer **any ten** questions. **Each** question carries **2** marks. (10x2=20)
- 1) What is Software Engineering ? Mention any two components of Software Engineering.
 - 2) Explain system decommissioning.
 - 3) Define SRS. List any two characteristics of a good SRS.
 - 4) What is requirement management process ?
 - 5) Define prototype. Mention its characteristics.
 - 6) Explain Loose coupling and Tight coupling.
 - 7) What is structural decomposition ?
 - 8) What are the characteristics of GUI ?
 - 9) Define POFOD.
 - 10) Define verification and validation.
 - 11) What is interface testing ? Mention any two types of interfaces.
 - 12) What is software risk ?

SECTION – B

- II. Answer **any five** questions. **Each** question carries **5** marks. (5x5=25)
- 13) What is software process ? Explain the different activities of software process.
 - 14) Write a note on data-flow models.
 - 15) Describe the difference between functional and non-functional requirements.

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- 16) Explain evolutionary and throw-away prototyping.
- 17) Describe the various software design principles.
- 18) Explain advantages and disadvantages of software reuse.
- 19) Explain cyclomatic complexity.
- 20) Write a note on software maintenance.

SECTION - C

III. Answer **any three** questions.

(3x15=45)

- 21) a) Define SDLC. Explain the different phases of SDLC.
b) Explain different phases of system engineering process with a neat diagram. (7+8)
- 22) a) Write the structure of SRS document.
b) Explain user interface prototyping with a neat diagram. (8+7)
- 23) a) Explain cohesion and explain different types of cohesion.
b) Discuss object oriented process in details. (8+7)
- 24) a) Explain different types of reliability metrics.
b) Explain user-interface design activities. (8+7)
- 25) a) Describe different types of testing.
b) Explain cocomo model. (8+7)

SECTION - D

IV. Answer **any one** question. **Each** question carries **10** marks.

(10x1=10)

- 26) Compare and contrast between waterfall model and spiral model. 10
- 27) Write short note on :
 - a) Software Quality Assurance. 5
 - b) System Procurement Process. 5

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