



OS – 407

V Semester B.C.A. Degree Examination, October/November 2012
(Y2K8 Scheme)

COMPUTER SCIENCE

BCA 501 : Software Engineering

Time : 3 Hours

Max. Marks : 90

Instruction : Answer **all** Sections.

SECTION – A

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

- 1) Define software engineering. Write the goals of software engineering.
- 2) What is system integration ? Name any two types .
- 3) Define SRS.
- 4) Explain feasibility study.
- 5) Write the characteristics of prototype.
- 6) Explain the differences between generic model and reference model.
- 7) What is OOA, OOD, OOP ?
- 8) What are the characteristics of GUI/UI ?
- 9) What is RGM, cosmetic failure ?
- 10) Differentiate between failure and faults.
- 11) Define test case, test plan.
- 12) Define Risk Management.

SECTION – B

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

- 13) What is software product ? Explain the types with example.
- 14) Explain the different techniques used for requirement elicitation and analysis.
- 15) Explain data flow model in detail with example.

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- 16) Explain the principles of software design.
- 17) Explain object, object class, inheritance with an example.
- 18) Explain different types of software reliability metrics.
- 19) What is software testing ? Distinguish between white box and black box testing.
- 20) Write a note on :
 - a) Quality assurance
 - b) Quality control.

SECTION – C

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

- 21) a) Define SDLC. Explain the different phases of SDLC. **(8+7)**
 - b) Explain the system engineering process with a neat diagram.
- 22) a) Describe different requirement validity checks. **(4+3+8)**
 - b) Describe requirement elicitation and analysis process of requirement engineering.
 - c) Differentiate between evolutionary and throw-away prototyping.
- 23) a) What are the qualities of a software design ? **(8+7)**
 - b) Explain object oriented design concept.
- 24) a) Describe different styles of user system interaction. **(7+8)**
 - b) What is reliability growth modelling ? Explain the two types of RGM.
- 25) a) Explain the contents of test plan template. **(8+7)**
 - b) Explain the empirical mode for cost estimation.
