

# 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

Answer any ten questions. Each question carries two marks.

 $(10 \times 2 = 20)$ 

- 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.

 $(5 \times 5 = 25)$ 

- 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

21) a)	ver any three questions. Each question carries fifteen marks.  Define SDLC. Explain the different phases of SDLC.  Explain the system engineering process with a neat diagram.	(3×15=45) (8+7)
b)	Describe different requirement validity checks.  Describe requirement elicitation and analysis process of require engineering.  Differentiate between evolutionary and throw-away prototyping.	(4+3+8) ement
	What are the qualities of a software design?  Explain object oriented design concept.	(8+7)
	Describe different styles of user system interaction.  What is reliability growth modelling? Explain the two types of RGM	(7+8) M.
	Explain the contents of test plan template.  Explain the empirical mode for cost estimation.	(8+7)