



UG – 295

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V Semester B.C.A. Examination, March/April 2021  
(Y2K14 – CBCS) (F+R)  
COMPUTER SCIENCE  
BCA 502 : Software Engineering

Time : 3 Hours

Max. Marks : 100

**Instruction :** Answer *all* Sections.

SECTION – A

I. Answer **any ten** questions.

(10×2=20)

- 1) What is the difference between software engineering and computer science ?
- 2) What are the essential attributes of good software ?
- 3) What is scenarios ?
- 4) List atleast four tools of CASE toolset.
- 5) What is UML ? Why we use it ?
- 6) What is prototyping ?
- 7) What is blackbox testing ?
- 8) Define software lifecycle.
- 9) List the significance of COCOMO model.
- 10) What is coupling ?
- 11) What is purpose of DFD ?
- 12) Explain feasibility study.



SECTION – B

II. Answer **any five** questions :

(5×5=25)

- 13) Explain non-functional requirements.
- 14) Explain throwaway prototyping method.
- 15) What is object model ? Explain with one example.
- 16) Differentiate verification and validation with suitable example.
- 17) What are the key challenges facing software engineering ?

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- 18) With neat diagram, explain software evolution process.
- 19) Write structure of requirement document as suggested by IEEE standards.
- 20) Write a note on software maintenance.

## SECTION – C

- III. Answer **any three** questions : (3×15=45)
- 21) a) Explain CASE work benches with a suitable block diagram. (8+7)  
 b) What is incremental development ? Explain.
- 22) a) Explain testing processes with suitable diagram. (8+7)  
 b) Explain the spiral model.
- 23) a) Write any four product and process standards. 5  
 b) Explain the software review process. 5  
 c) Explain briefly the process and product management. 5
- 24) Explain following :
- a) Architectural design. 5  
 b) Data dictionary. 5  
 c) Risk management. 5
- 25) Write a note on :
- a) Quality assurance and quality control. 5  
 b) Object, class and inheritance with example. 5  
 c) Cost estimation. 5

## SECTION – D

- IV. Answer **any one** question : (1×10=10)
- 26) Explain requirement elicitation and analysis process.
- 27) Write a short note on :
- a) Software reliability and reusability. 5  
 b) System modeling with the help of “A simple intruder alarm system”. 5
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