



V Semester B.C.A. Degree Examination, March 2023  
(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) Differentiate between generic and customised software products.
- 2) What are the ethical and professional responsibilities of software engineer ?
- 3) What are the human factors in software engineering ?
- 4) Define prototyping in software process.
- 5) What is cohesion ?
- 6) What are the concurrent objects ?
- 7) What do you mean by interface evaluation ?
- 8) Define software reliability.
- 9) What is reliability growth modeling ?
- 10) What is statistical testing ?
- 11) What is the purpose of test case ?
- 12) What is feasibility study ?

SECTION – B

II. Answer **any five** questions.

(5×5=25)

- 13) Explain about risk management.
- 14) Discuss in detail about Software Requirement Specification (SRS).



- 15) What are the design strategies ?
- 16) Write a short note on domain specific architecture.
- 17) What is exception handling ? Explain.
- 18) Explain about fault avoidance and tolerance.
- 19) Discuss about clean room software development.
- 20) Explain about software cost estimation.

## SECTION – C

III. Answer **any three** questions.

(3×15=45)

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|---|----|
| 21) a) With a neat diagram explain spiral model.                    | 10 |
| b) What are the social & organisational factors ?                   | 5  |
| 22) a) Discuss in detail about requirement engineering process.     | 10 |
| b) What is content model ? Explain.                                 | 5  |
| 23) a) What are the prototyping techniques ?                        | 10 |
| b) Write a short note on design quality.                            | 5  |
| 24) a) Explain object oriented design with example.                 | 8  |
| b) What is coupling ? Explain different types of coupling in brief. | 7  |
| 25) a) What are the software reliability metrics ?                  | 10 |
| b) Briefly explain about types of testing.                          | 5  |

## SECTION – D

IV. Answer **any one** question.

(1×10=10)

- 26) Discuss about functional and non-functional requirements.
  - 27) Explain in detail about project management.
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