



QP – 419

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V Semester B.C.A. Degree Examination, March/April 2022

(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. **Each** question carries **two** marks. (10×2=20)

- 1) Define Requirement Engineering Process.
- 2) What are the two types of software products ?
- 3) What is feasibility study ?
- 4) What is system procurement ?
- 5) Define coupling. Name the two types of coupling.
- 6) What are the characteristics of GUI ?
- 7) What is user interface prototyping ?
- 8) What is RGM ? Mention two types of RGM.
- 9) What is defensive programming ?
- 10) What is functional testing ?
- 11) What are the major activities of project management ?
- 12) What is alpha and beta testing ?



SECTION – B

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

- 13) Explain spiral model with a neat diagram.
- 14) What are the characteristics of SRS document ?

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- 15) What are the benefits of developing a prototype early in software process ?
- 16) Explain object, object class and inheritance with an example.
- 17) Explain design principles.
- 18) Give the classification of failures with an example.
- 19) Distinguish between white box and black box testing.
- 20) Write a note on quality assurance.

## SECTION – C

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

- 21) a) Explain different phases of SDLC. [8+7]  
b) Explain system design process.
- 22) a) Describe two types of prototyping with advantages and disadvantages. [8+7]  
b) Describe in detail, the design quality.
- 23) a) What is coupling ? Explain any three types of coupling. [7+8]  
b) Explain the function oriented design.
- 24) a) Discuss software reliability and hardware reliability. [8+7]  
b) Write a note on verification and validation model.
- 25) a) Explain COCOMO model in detail. [9+6]  
b) Explain the contents of Test Plan Template.

## SECTION + D

IV. Answer **any one** question. (1×10=10)

- 26) Explain waterfall model with a neat diagram. Mention its merits and demerits.
  - 27) Write a short note on : (5+5)
    - a) Risk Management.
    - b) Program Analysis tools.
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