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**V Semester B.C.A. Degree Examination, March/April 2024**  
**(CBCS) (Repeaters)**  
**COMPUTER SCIENCE**  
**BCA 502T : 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 generic software product with an example.
- 2) What is COTS ?
- 3) What is technical feasibility ?
- 4) What is 4GL ?
- 5) What is coupling ?
- 6) What are OOA and OOP ?
- 7) What is user interface prototyping ?
- 8) Define error and fault.
- 9) Define cyclometric complexity.
- 10) What is verification and validation ?
- 11) What is project planning ?
- 12) What is quality assurance ?

**SECTION – B**

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

- 13) Explain software process visibility.
- 14) Write a note on system environment.

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- 15) Explain the phases of Requirement Elicitation and Analysis Process.
- 16) Explain throw away prototyping process.
- 17) Explain the design objectives.
- 18) Explain aggregation with example.
- 19) Write a short note on GUI characteristics.
- 20) Explain any two testing strategy with a diagram.

#### SECTION – C

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

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| 21) a) Explain waterfall model with neat diagram.                            | 8 |
| b) Explain system procurement process.                                       | 7 |
| 22) a) Explain different requirement validation techniques.                  | 8 |
| b) Explain different types of cohesion with example.                         | 7 |
| 23) a) Explain fault tolerance architecture and recovery block with diagram. | 8 |
| b) Explain Reliability Metrics.  | 7 |
| 24) a) Write a note on function oriented design concept.                     | 8 |
| b) Explain user interface design process with a diagram.                     | 7 |
| 25) a) Explain Glassbox and Functional testing with diagram.                 | 8 |
| b) Explain the contents of test plan.  | 7 |

#### SECTION – D

IV. Answer **any one** question. **Each** question carries **ten** marks : **(1×10=10)**

- 26) Explain COCOMO Model with neat diagram.
  - 27) Explain spiral model with a neat diagram and advantages.
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