SN – 663

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V Semester B.C.A. Degree Examination, Nov./Dec. 2017
(2016-17 and Onwards) (CBCS) (F + R)
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 system.
2) What are the two types of software products ?
3) What is system decommissioning ?
4) Mention two advantages of prototype model.
5) Define cohesion.
6) Define object and class.
7) What are the characteristics of GUI ?
8) Define SRS.
9) Define Risk.
10) Differentiate between verification and validation.
11) Define reliability.
12) What is a test case ?

SECTION – B

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

13) Explain waterfall model with its advantages and disadvantages.
14) What are volatile requirements ? Explain the classification of volatile requirements.
15) Explain the different phases of system design process with a diagram.
16) What is fault tolerance ? Explain the two approaches to software fault tolerance.
17) Differentiate between black box and white box testing.

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18) Explain the quality characteristics of design.
19) Describe different requirement validation checks.
20) Explain types of software maintenance.

SECTION – C

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

21) a) Explain requirement elicitation and analysis process of requirement engineering with diagram.
    b) Explain IEEE structure of SRS document. **(8+7)**
22) a) Explain design principles in detail.
    b) Explain two types of prototyping with advantages and disadvantages. **(8+7)**
23) a) Explain different reliability metrics.
    b) Explain reliability growth modeling. **(7+8)**
24) a) Write a note on object oriented design concept.
    b) Explain different styles of user system interaction. **(7+8)**
25) a) Explain various levels of testing.
    b) Explain the contents of test plan template. **(6+9)**

SECTION – D

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

26) Explain COCOMO model in detail.
27) Explain system engineering process with a neat diagram.