V Semester B.C.A. Examination, November/December 2013
(Y2K8) Scheme)
BCA 501 : SOFTWARE ENGINEERING

Time : 3 Hours   Max. Marks : 90/100

Instructions : 1) *Section **A, B, C** is common to **all**. Section **D** is applicable to*
the students who have taken admission in 2011-2012.

2) ***100** marks for students of 2011-2012. **90** marks for repeaters*
prior to 2011-2012.

SECTION – A

I. Answer **any ten** questions. **Each** question carries **two** marks.   **(10×2=20)**

1) Define Software Engineering.

2) Define System.

3) Explain the role of SRS.

4) What is system procurement ?

5) What are the advantages of prototype model ?

6) Define object and class.

7) Define Error and Failure.

8) What is coupling ? Name two types of coupling.

9) Differentiate between verification and validation.

10) Define Risk.

11) What is RGM ?

12) Define Quality Assurance.

SECTION – B

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

13) What is software product ? Explain two types of software product with example.

14) Explain the different phases of system design process with a neat diagram.

15) Describe different requirement validation checks.

16) Describe two types of prototyping with advantages and disadvantages.

P.T.O.

17) Explain the quality characteristics of design.

18) Explain the classification of volatile requirements.

19) Distinguish between White box and Black box testing.

20) Explain the two approaches to Software Fault Tolerance.

SECTION – C

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

21) a) Explain Spiral model with its advantages and disadvantages.

  b) Explain the different phases of SDLC.   **(8+7)**

22) a) Describe requirement elicitation and analysis process of requirement Engineering with diagram.

  b) Explain IEEE structure of SRS document.   **(8+7)**

23) a) Explain design principles in detail.

  b) Explain object oriented design concept.   **(8+7)**

24) a) Explain different reliability metrics.

  b) Describe different styles of User System Interaction.   **(7+8)**

25) a) Describe COCOMO model.

  b) Explain the contents of test plan template.   **(9+6)**

SECTION – D

Note : Section **D** should be answered only by students of **2011-12** only.
Answer **any one** question. **Each** carries **ten** marks.   **(1×10=10)**

26) Explain system Engineering process with a neat diagram.

27) Compare and contrast water fall model and spiral model.

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