Question Paper Code : 3369

BCA (Semester-IV) Examination, 2022

SOFTWARE ENGINEERING

[Paper : BCA-405]

Time : Three Hours] [Maximum Marks : 70

Note : Answer five questions in all. Question No.1 is compulsory. Besides this attempt **one** question from each unit.

1. Attempt **all** of the following parts in brief : [3×10=30]

   (a) Define Software Engineering.

   (b) List the goals of Software Engineering.

   (c) Draw and explain Prototype Model.

   (d) What is SRS? Explain various components of SRS.

   (e) What is Software Design Principles? Explain Abstraction and Refinement.

   (f) Explain Cohesion and Coupling.

   (g) Define Modularity and Information Hiding.

   (h) What is the impact of reusability in Software Development Process?

   (i) What are the steps followed in Testing Process?

   (j) Define a Project. What are the different parameter and specification that are involved in Project?

Unit-I

2. Explain the following : [10]

   (i) Waterfall model

   (ii) Spiral model

3. What are the steps involved in RAD Model? [10]

Unit-II

4. What is the purpose of Data flow Diagram? Explain by constructing a context flow diagram Level-0 DFD and Level-1 DFD for Library Management System. [10]

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5. How problem analysis is done using UML (Unified Modeling Language) and Data Dictionary? Explain. [10]

Unit-III

6. Differentiate between Top-down and Bottom-up Strategy. Give example. [10]

7. What are the different Coding Standards? Explain Black box and White box testing. [10]

Unit-IV

8. Define Software Project Management. Life cycle. Explain planning and benefits of Program Management.. [10]

9. Explain COCOMO Model. Write and explain different types and modes of COCOMO Model. Write limitation of COCOMO Model. [10]

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Note : Answer five questions in all. Question no.01 is compulsory. Besides this, attempt one question from each unit.

1. Answer all questions in brief : [3×10=30]

    (a) Differentiate between active and passive graphics.

    (b) Distinguish between horizontal retrace and vertical retrace.

    (c) How is clipping performed using Cohen-Sutherland algorithm for a clipping a line?

    (d) What is display processor?

    (e) Why are transformation required?