BCA (CBCS) RUSA VI Semester Examination

4219

COMPUTER SCIENCE

(Software Engineering)

Paper : BCA–0605

Time : 3 Hours] [Maximum Marks : 70

Note :– Attempt *five* questions in all, selecting *one* question each from Units–I, II, III and IV. Question No. 1 (Part–A) is compulsory.

Part–A

(Compulsory Question)

1. (A) Attempt all parts. Select the correct option :

   (i) Which is the first step in the software development life-cycle ?

   (a) Analysis

   (b) Design

(c) Problem/Opportunity Identification

(d) Development and Documentation

(ii) Which one of the following is not a software process quality ?

(a) Visibility

(b) Timeliness

(c) Productivity

(d) Portability

(iii) Attributes of good software is :

(a) Development

(b) Maintainability and functionality

(c) Functionality

(d) Maintainability

(iv) .... is defined as the process of generating analysis and designing documents ?

(a) Re-engineering

(b) Reverse engineering

(c) Software re-engineering

(d) Science and engineering

(v) The UML was designed for describing :

(a) Object-oriented systems

(b) Architectural design

(c) SRS

(d) Both object-oriented systems and Architectural design

(vi) Architectural design is a creative process satisfying only functional-requirements of a system.

(a) True

(b) False

(vii) Architecture once established can be applied to other products as well.

(a) True

(b) False

(viii) One can choose Waterfall Model if the project development schedule is tight.

(a) True

(b) False

Fill in the blanks :

(ix) The UML supports event-based modeling using .... diagrams.

(x) PDL in software engineering stands for ....   1×10=10

(B) Answer the following in **25** to **40** words :

(i) Explain the spiral model with its advantages and its disadvantages.

(ii) What are the characteristics of a good design ?

(iii) Write a short note on critical design review.

(iv) What is feasibility study ?

(v) What is requirement specification ?   4×5=20

Part–B

Unit–I

2. What is Software Engineering ? Explain the role of management in software development.   10

3. (a) Explain the Waterfall model with its advantages and disadvantages.

   (b) Discuss how a software model is selected ?   6,4

Part-C

Unit-II

4. What is Requirement Elicitation ? What are the difficulties in Elicitation ?   10

5. (a) Describe how to prepare a Software Requirement Specification (SRS) document.

   (b) Discuss the role of software architecture.   5,5

Part-D

Unit-III

6. Write short notes on the following :

   (i) Unified Modelling Language (UML)

   (ii) Object Oriented Analysis Modelling

   (iii) Object Oriented Design concepts and methods 3,3,4

7. Explain in detail the concept of Dynamic Modelling.   10

CA-755   (6)

Part-E

Unit-IV

8. (a) What is difference between validation and verification ?

   (b) What is Refactoring ? Discuss in brief.   5,5

9. Write short notes on the following :

   (i) Critical Design Review

   (ii) PDL   5,5

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