Sr. No 311210

May 2024

BCA Re-Appear- II SEMESTER

Structured System Analysis and Design (BCA-17-109)

Time: 3 Hours **Max. Marks:75**

Instructions:
1. *It is compulsory to answer all the questions (1.5 marks each) of Part -A in short.*
2. *Answer any four questions from Part -B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART -A

Q1 (a) Under what circumstances can an analyst terminate a project? (1.5)

(b) List the difference between a flowchart and a data flow diagram. (1.5)

(c) Suggest ant two methods to overcome the difficulties in gathering requirements from users. (1.5)

(d) In which life cycle phase is code review carried out? (1.5)

(e) Mention the problems that may arise if a module has high coupling with other modules. (1.5)

(f) Distinguish between verification and validation. (1.5)

(g) Define term structured analysis. Name a tool to carry out structured analysis. (1.5)

(h) List the objectives of output design. (1.5)

(i) What is a form? Mention various types of forms. (1.5)

(j) Differentiate between white box testing and black box testing. Can one be used in place of another? (1.5)

PART -B

Q2 (a) Briefly explain different stages in System Development Life Cycle. How are these stages included in spiral model of Software development? (10)

(b) Describe various methods used in fact finding. (5)

Q3 (a) Draw context diagram, level-1, level-2 DFDs for a standard Hospital Management System. (10)

(b) Illustrate the evaluation methods that are available to evaluate an identified financial data. (5)

Q4 (a) Discuss major objectives of a walkthrough? List the guidelines for conducting a walkthrough. (10)

(b) Explain in detail about input design process. (5)

Q5 (a) Differentiate between corrective, perfective and adaptive maintenance of software. Discuss the process models for carrying out software maintenance. (10)

(b) Briefly explain the role of coupling and cohesion in effective modular design. (5)

Q6 (a) Illustrate with an example, the advantages of software prototyping. Why is it advisable to throw away the prototype in case of large case software development? (10)

(b) Briefly explain the Function Point Analysis method of software effort estimation. Discuss the advantages of using function point as compared to LOC (Lines of Code) for size estimation? (5)

Q7 Write Short Note on: (15)

a. Gantt Charts
b. Decision Trees
c. Quality Assurance Goals

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