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GIET MAIN CAMPUS AUTONOMOUS GUNUPUR – 765022

B. Tech Degree Examinations, December – 2020

(Fifth Semester)

BCSPC 5030 / BITPC 5030 - SOFTWARE ENGINEERING

(CSE & IT)

Time: 2 hrs

Maximum: 50 Marks

The figures in the right hand margin indicate marks.**PART – A: (Multiple Choice Questions)****(1 x 10 = 10 Marks)**Q.1. Answer ALL questions

- a. Which one of the following models is not suitable for accommodating any change?
- (i) Build & Fix Model (ii) Prototyping Model
(iii) RAD Model (iv) Waterfall Model
- b. Which one of the following is not a step of requirement engineering?
- (i) elicitation (ii) design
(iii) analysis (iv) documentation
- c. Which is one of the most important stakeholder from the following ?
- (i) Entry level personnel (ii) Middle level stakeholder
(iii) Managers (iv) Users of the software
- d. Which one of the following is a requirement that fits in a developer's module ?
- (i) Availability (ii) Testability
(iii) Usability (iv) Flexibility
- e. Which of the following is a function of CASE Tool?
- (i) Supporting Structured analysis and design (ii) Checking whether DFDs are balanced or not
(iii) Maintaining the data dictionary (iv) All of the mentioned
- f. Which of the following is not an activity of Structured Analysis (SA) ?
- (i) All the functions represented in the DFD are mapped to a module structure (ii) Transformation of a textual problem description into a graphic model
(iii) Functional decomposition (iv) All of the mentioned
- g. _____ is the process of translating a task into a series of commands that a computer will use to perform that task.
- (i) Project design (ii) Installation
(iii) Programming (iv) Systems analysis
- h. Which of the following are the valid relationships in Use Case Diagrams
- (i) Generalization (ii) Include
(iii) Extend (iv) All of the mentioned
- i. In size oriented metrics, metrics are developed based on the _____
- (i) number of Functions (ii) number of user inputs
(iii) number of lines of code (iv) amount of memory usage
- j. What is an abstract class?
- (i) A class that has direct instances, but whose descendants may have direct instances (ii) A class that has direct instances, but whose descendants may not have direct instances

- (iii) A class that has no direct instances, but whose descendants may have direct instances
- (iv) All of the mentioned

PART – B: (Short Answer Questions)

(2 x 5 = 10 Marks)

Q.2. Answer ALL questions

- a. Explain two major activities undertaken during high-level design and detailed design.
- b. What is the importance of data dictionary in the context of good software design?
- c. Define Line of Code (LOC) and Function Point (FP).
- d. What is Control Flow Graph?
- e. What is the difference between an operation and a method in the context of object-oriented design technique?

PART – C: (Long Answer Questions)

(6 x 5 = 30 Marks)

Answer ANY FIVE questions

Marks

3. What is Black Box Testing? What are the two main approaches to design black box test cases? (6)
4. What is Window Management System (WMS)? What are the various types Window Objects used in WMS? (6)
5. What do you understand by Software Requirement Specification? What is the goal of Software Requirement Specification? Briefly discuss the format and contents of Software Requirement Specification. (6)
6. What is software maintenance? Discuss the different types of software maintenance. (6)
7. Differentiate between structured analysis and structured design in the context of function-oriented design. (6)
8. What are the different types of requirements gathering activities that the analysts use to gather requirements from a customer? (6)
9. What is DFD? What do you mean by balancing a DFD? Explain with an example. (6)
10. What are the different types of views of a system captured by UML diagrams? (6)

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