Reg. No. :

Question Paper Code: 41485

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2016

Fourth Semester

Information Technology

14UIT405 - OBJECT ORIENTED SOFTWARE ENGINEERING METHODOLOGIES

(Regulation 2014)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Which of the following is not the characteristic of software?

    (a) Software does not wear out   (b) Software is flexible
    (c) Software is not manufactured   (d) Software is always correct

2. SDLC stands for

    (a) Software design life cycle   (b) Software development life cycle
    (c) System design life cycle   (d) System development life cycle

3. A good specification should be

    (a) Unambiguous   (b) Distinctly specific
    (c) Functional   (d) All of the above

4. What is the goal of the requirements analysis and specifications phase of software development life cycle?

    (a) Understanding the customer requirements and organize them in an informal document
    (b) Analysing the cost of development
    (c) Determining scope of the software   `
    (d) None of the above

5. The term module in the design phase refers to

    (a) Functions   (b) Procedures

    (c) Sub programs   (d) All of the above

6. Which of the following comments about object oriented design of software, is not true?

    (a) Objects inherit the properties of class

    (b) Classes are defined based on the attributes of objects

    (c) An object can belong to two classes

    (d) Classes are always different

7. White box testing, a software testing technique is sometimes called

    (a) Basic path   (b Graph testing

    (c) Dataflow   (d) Glass box testing

8. An important aspect of coding is

    (a) Readability   (b) Productivity

    (c) To use as small memory space as possible   (d) brevity

9. In size oriented metrics, metrics are developed based on the _____

    (a) number of functions   (b) number of user inputs

    (c) number of lines of code   (d) amount of memory usage

10. Function oriented metrics were first proposed by

    (a) John   (b) Gaffney   (c) Albrecht   (d) Basili

PART - B (5 x 2 = 10 Marks)

11. Define: CMMI?

12. Define: Petri Nets and Data Dictionary.

13. List the various coupling methods used in software design.

14. Name the activities of software configuration management.

15. List the steps involved in project scheduling process.

PART - C (5 x 16 = 80 Marks)

16. (a) What is meant by process model? Explain in details about any two process model. (16)

Or

(b) Explain the business process engineering hierarchy with an example. (16)

17. (a) (i) Explain the metrics used for specifying non- functional requirements. (8)

(ii) Show the template of IEEE standard software requirements document. (8)

Or

(b) Discuss the requirement engineering process and how the requirements are managed? Discuss about the requirement engineering process with their management principles. (16)

18. (a) (i) Discuss the design heuristics for effective modularity design. (8)

(ii) List the activities of user interface design process and explain. (8)

Or

(b) Explain in detail about any four architectural styles. (16)

19. (a) Explain in details the various testing strategies. (16)

Or

(b) (i) Write note on unit testing? Discuss about the unit testing. (8)

(ii) Explain the categories of debugging approaches. (8)

20. (a) What are the metrics used for estimating cost? Discuss in details about the COCOMO model in cost estimation of the software. (16)

Or

(b) (i) Explain the types of software project plan. (8)

(ii) What are the categories of software risks? Give an overview about risk management. (8)

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