Section A

There are 4 options to every question. Select the correct option.

1. What are the characteristics of software?
   a) Software doesn't wear out
   b) Software can be custom built or custom build
   c) Software is developed or engineered it is not manufactured in the classical sense
   d) All mentioned above

2. COCOMO stands for_____
   a) Consumed Cost model
   b) Constructive Cost Model
   c) Common Control Model
   d) Composition Cost Model

3. Compilers, Editors software come under which type of software?
   a) System software
   b) Application software
   c) Scientific Software
   d) None of the above

4. Which of the following is not defined in a good Software Requirement Specification(SRS) document?
   a) Functional Requirement
   b) Non Functional Requirement
   c) Goals of Implementation
   d) Algorithm for Software Implementation

5. What is the simplest model of software development paradigm?
   a) Spiral model
   b) Big-bang model
   c) V-Model
   d) Waterfall model

6. Which design identifies the software as a system with many components interacting with each other?
   a) Architechtural Design
   b) High-Level Design
   c) Detailed Design

d) Both B&C

7. Software consists of _____
   a) Programs +hardware manuals
   b) Programs+documentation+ operating procedure
   c) Set of Instructions+operating procedures
   d) Set of Programs

8. Which is not the step of Requirements Engineering?
   a) Requirements Elicitation
   b) Requirements Analysis
   c) Requirements Design
   d) Requirements doocuments

9. ER model shows the
   a) Static View
   b) Functional View
   c) Dynamic View
   d) All the above

10. A COCOMO model is_____
    a) Common Cost Estimation Model
    b) Constructive Cost Estimation Model
    c) Complete Cost Estimation Model
    d) Comprehensive Cost Estimation Model

11. The model in which the requirements are implementedby its category is __
    a) Evolutionary Development Model
    b) Waterfall model
    c) Prototyping
    d) Iterative Enhancement Model

12. Which of the following is a requirement management activity ?
    a) Investigation
    b) Design
    c) Construction and Test
    d) All of the mentioned

13. Why is Requirements Elicitation a difficult task ?
    a) Problem of scope
    b) Problem of understanding
    c) Problem of volatility
    d) All of the mentioned

14. What is the first step of requirement elicitation ?
    a) Identifying Stakeholder
    b) Listing out Requirements

c) Requirements Gathering
d) All of the mentioned

15. Which one of the following is a functional requirement ?
    a) Maintainability
    b) Portability
    c) Robustness
    d) None of the mentioned

16. Which one of the following is NOT desired in a good Software Requirement Specifications (SRS) document?

    a)Non-Functional Requirements
    b)Goals of Implementation
    c)Functional Requirements
    d)Algorithms for Software Implementation

17. Line of code(LOC) of the product comes under which type of measures?

    a)Direct measures

    b)Coding

    c)Indirect measures

    d)None of the above

18. How many numbers of maturity levels in CMM are available?

    a)6

    b)8

    c)5

    d)4

19. What are attributes of good software?

    a)Software Functionality

    b)Software Maintainability

    c) Software Development

    d) Both Software functionality & Maintainability

20. Which one of the following is not stage of SDLC?
    a) System Analysis

b) Problem Identification
c) System Design
d) Feasibility Study

21. In an ER diagram noun is treated as:
    a) Entity
    b) Relationship
    c) Primary Key
    d) Foreign Key

22. Data Flow Diagram is used for :
    a) Process Modeling
    b) Data Modeling
    c) Modelling interactions in a real time environment
    d) None of these above

23. ER diagram is related with:
    a) Entity relationship
    b) Data Flow
    c) Foreign Key
    d) System Testing

24. Entities, attributes and relationships are associated with
    a) Logical concepts of data
    b) Physical concepts of data
    c) Programming
    d) None of these

25. Which of the following models is not suitable for accommodating any changes?
    a) Prototyping model
    b) Waterfall model
    c) Build and Fix model
    d) V model

Section B

II. Short Answer Questions: 5X4=20

1. What is software process or Software Development Life Cycle (SDLC)?
2. what is the need to learn software engineering concepts?
3. What are various phases of SDLC?
4. What does software project manager do?
5. What do you understand by the scope of the project?
6. What is Project Estimation? What are the two types of estimation.
7. Write Short notes on:

a) Software Components
b) Unified Process Model
c) Software Crisis
d) Legacy Software
e) The evolving Role of Software

8. Explain the Prototyping Model of software development in diagram form.
9. Explain the Testing phase of SDLC.
10. What are the 4 steps of Requirement Engineering Process. Explain in brief.
11. Mention all the characteristics of a good Software.
12. What do you know about the project Risk Management.

Section C

III. Long Answer Questions: 15X2=30

1. What is Feasibility Study? How many types of techniques are there for the same.
2. What are the various techniques of gathering Requirements.
3. What is SRS? What are the characteristics of ideal SRS document?
4. Why do we need to have SDLC Models? Describe the best SDLC Model as per your choice.
5. Explain COCOMO is detail.
6. Write about Agile Software Development Model in detail (with its advantages and disadvantages).
7. What do you understand by CMMi(Capability Maturity Model Integration) approved software organizations? Explain the five levels of CMMi standards.
8. What do you understand by Process Patterns? What are the content of templates for describing a process pattern.
9. Explain the Software Process Framework with diagram.
10. Write about Software Engineering a Layered Technology.

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