

Roll No.

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M.Sc. (THIRD SEMESTER)
EXAMINATION, Dec. - Jan., 2021-22
COMPUTER SCIENCE
(Paper-Second)
Software Engineering

*Time : Three Hours]**[Maximum Marks : 100**[Minimum Pass marks : 40***Note :** Attempt all sections as directed.**Section - A****(Objective/Multiple Choice Questions)****(1 mark each)****Note :** Attempt all question**Choose the correct answer.**

1. Project where requirements are not properly understood in the beginning which software process model is most suitable?
 - (A) Water fall Model.
 - (B) Prototype Model.
 - (C) Incremental Model.
 - (D) RAD model

2. Major defect in waterfall model is that-
 - (A) The documentation is difficult
 - (B) A blunder at any stage can be disastrous
 - (C) A trial version is available only at the end of the project.
 - (D) The maintenance of the software is difficult.
3. Incremental model combine benefits of the following software process model .
 - (A) Water fall model
 - (B) Prototype Model
 - (C) Both (A) and (B)
 - (D) None of above.
4. Which of the following Model is suitable for development of word processing software in which new features are added in core software periodically?
 - (A) Water fall Model
 - (B) Prototype Model
 - (C) Incremental Model
 - (D) RAD Model
5. Which of the following is/are basic issue on SRS must address?
 - (A) Functionality
 - (B) Performance
 - (C) Both (A) and (B)
 - (D) None of above

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6. Which of the following is used as a legal contract between client and developer for software to be developed.
- (A) Data dictionary
 - (B) E.R. Diagram
 - (C) Decision table
 - (D) Software Requirement Specification
7. Data flow diagrams are commonly used during.
- (A) Problem Analysis
 - (B) Requirement Specification
 - (C) Requirement Validation
 - (D) None of above
8. If specification of the system are clearly known and the system development is from scratch, which design approach is suitable?
- (A) Top-down approach
 - (B) Bottom - up approach
 - (C) Both (A) and (B)
 - (D) None of above.
9. If interface complexity of modules are lower than degree of coupling will be -
- (A) Lower
 - (B) Middle
 - (C) Higher
 - (D) No effected

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10. Among following which comes is the highest level of cohesion-
- (A) logical
 - (B) functional
 - (C) Communicational
 - (D) procedural
11. Which of the following is in the correct sequence of level of cohesion from low to high?
- (A) Coincidental, Communicational, Temporal
 - (B) Logical, Communicational, sequential
 - (C) Communicational, Coincidental, Sequential
 - (D) Functional, Procedural, Sequential.
12. Symbol used to identity relationship set for weak entity set is -
- (A) Rectangle
 - (B) Double Rectangle
 - (C) Diamond
 - (D) Double Diamond
13. Which of the following is used to create graphical representation of database?
- (A) Data Flow Diagram
 - (B) Decision Table
 - (C) E-R Diagram
 - (D) None of above

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14.is referred to a different set of activities that ensure that the software that has been built is traceable to customer requirement.
- (A) Validation
 - (B) Verification
 - (C) Support
 - (D) Maintenance
15. The Reliability of the software is directly depends on:
- (A) Quality of design
 - (B) Programmer's experience
 - (C) Faults in the software
 - (D) Set of user requirement
16. The testing which focus on the design and construction of software architecture?
- (A) Unit Testing
 - (B) Integration Testing
 - (C) Validation Testing
 - (D) System Testing
17. The general debugging Approach is/are categories as-
- P : brute force
Q : back tracking
R : cause elimination
- (A) only P and Q
 - (B) only P and R
 - (C) only R and Q
 - (D) All P, Q and R

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18. The _____ test is conducted at one or more customer site by the end user of the software.
- (A) Alpha testing
 - (B) Beta testing
 - (C) Regression Testing
 - (D) None of above
19. Reason to re-engineer a software include -
- P : allow legacy software to quickly adapt to the changing requirement
Q : upgrade to newer technologies/platforms
R : Improve software maintainability
S : Allow change in the functionality and architecture of the software.
- (A) P, R and S only
 - (B) P and R only
 - (C) P, Q and S only
 - (D) P, Q and R only
20. Which of the following is not risk assessment activity.
- (A) Risk Identification
 - (B) Risk Analysis
 - (C) Risk Prioritization
 - (D) Risk Resolution

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Section - B

(Very Short Answer Type Questions)

(2 marks each)

Note : Attempt all questions.

1. What is software engineering?
2. What is Process Adaption in a software engineering?
3. What do you mean by information hiding?
4. Define the term Refinement.
5. Explain Software Reliability.
6. Write measurement parameters to calculate functional point metric.
7. Define the term internal documentations.
8. What is unit testing?
9. Define people in project Management concept?
10. Define the term Software Maintenance.

Section-C

(Short Answer Type Questions)

(3 marks each)

Note : Answer all questions within 75 words.

1. Define Software Process Framework.
2. What is Water fall Model? Write limitation of this model.
3. What is decision table? Explain with example.
4. What is coupling? Explain it's types.

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5. Explain software Quality Assurance Standards.
6. Explain Software Maturity Models.
7. Write difference between Alpha and Beta testing.
8. What is debugging? Explain Debugging process.
9. What is Software Maintenance? Explain Lehman Model.
10. What is Software Risk? Explain Risk Identification Process.

Section-D

(Long Answer Type Questions)

(6 marks each)

Note : Attempt any five questions in 150 words.

1. What is spiral model? Explain each phase of this model.
2. Explain Data Flow Diagram and Pseudo Code with example
3. Write difference between function oriented and object oriented design.
4. What is case Tools? Explain Architecture of case tools.
5. What is software testing? Explain various testing technique.
6. What is software project estimation? Explain cocomo Model in detail.

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