D/ 1016 (A)

M. Sc. (Fourth Sem.) (Main/ATKT)

Sem. Examination May-June : 2020

COMPUTER SCIENCE

Paper First

(Software Engineering)

Time : Three Hours] [Maximum Marks : 100

Note : Attempt all questions as directed.

Section A 1 each

(Objective/ MCQ)

1. Which two models doesn't allow defining requirements early in the cycle?
a) Waterfall & RAD
b) Prototyping & Spiral
c) Prototyping & RAD
d) Waterfall & Spiral

2. Selection of a model is based on
a) Requirements
b) Development team & Users
c) Project type and associated risk
d) All of the mentioned

3) Line of code(LOC) can be used to normalize quality and/or productivity measure for _____ .

a. Extended function point metrics
b. Function point metrics.
c. Size oriented metrics.
d. None of the above.

4) When elements of module are grouped because the output of one element serves as input to another and so on, it is called _____ .

a. Functional cohesion
b. Sequential cohesion
c. Communicational cohesion
d. Procedural cohesion

5) Which of the following techniques is not a White box technique?

a. Statement Testing and coverage
b. Decision Testing and coverage
c. Condition Coverage
d. Boundary value analysis

6. Purpose of process is to deliver software
a) in time
b) with acceptable quality
c) that is cost efficient
d) both in time & with acceptable quality

7. The user system requirements are the parts of which document ?
a) SDD
b) SRS
c) DDD
d) SRD

8.Architectural Design Metrics are _____ in nature.
a) Black Box
b) White Box
c) Gray Box
d) Green Box

9) Grouping of all functionally related elements is known as _____ .

a. Cohesion
b. Coupling
c. Both A & B
d. None of the above

10) FAST stands for _____ .

a. Functional Application Specification Technique
b. Fast Application Specification Technique
c. Facilitated Application Specification Technique
d. None of the above

11) CMM model in Software Engineering is a technique of _____ .

a. Develop the software.
b. Improve the software process.
c. Improve the testing process.
d. All of the above.

12. Which one of the following is not a phase of Prototyping Model?
a) Quick Design
b) Coding
c) Prototype Refinement

d) Engineer Product

13) Alpha and Beta Testing are forms of _____ .

a. Acceptance testing
b. Integration testing
c. System Testing
d. Unit testing

14) The tools that support different stages of software development life cycle are called _____ .

a. CASE Tools
b. CAME tools
c. CAQE tools
d. CARE tools

15) Which is the most important feature of spiral model?

a. Quality management
b. Risk management
c. Performance management
d. Efficiency management

16) Modifying the software to match changes in the ever changing environment is called _____ .

a. Adaptive maintenance
b. Corrective maintenance
c. Perfective maintenance
d. Preventive maintenance

17) IEEE 830-1993 is a IEEE recommended standard for _____ .

a. Software Requirement Specification
b. Software design
c. Testing
d. Both (A) and (B)

18) What does the physical connections between the elements of the OO design represent?

a. Cohesion
b. Coupling

c. Both A & B
d. None of the above

19) Which Chart is a statistical technique to assess, monitor, and maintain the stability of a process?

a. Control Chart
b. Maintenance Chart
c. Bar Charts
d. None of these

20. Which is the Estimation Software size should be known?

a. Time estimation
b. Effort estimation
c. Cost estimation
d. Software size estimation

Section – B 2 each

(Very Short Answer Type Question)

Q-1What is software engineering?

Q2.What are various phases of SDLC?

Q-3What is SRS

Q-4What is modularization?

Q-5Who is software project manager?

Q-6What is cohesion?

Q-7Define software Re-engineering.

Q-8How can we derive the size of software product?

Q-9 Write full form of COCOMO.

Q-10What is Unit Testing

Section C 3 each

(Short Answer Type Question)

Give Answer in less than 75 words.

Q1 How can you measure project execution?

Q-2 What is Putnam resource allocation model.

Q-3 What is logarithmic Poisson model

Q-4 What is software testing.

Q-5What is function oriented design

Q-6 What do you mean by information flow metrics.

Q-7 What is FAST

Q-8 Give types of software maintenance?

Q-9 What is Risk management

Q-10 Write IEEE definition of Software engineering

Section D 6 each

(Long answer question)

Q1.Explain software life cycle model in short.

Q-2 Discuss cost estimation model.

Q-3 Explain software reliability in detail

Q-4 Explain functional testing.

Q-5 Write short notes on

a) Software maintenance b) Classification of cohesiveness and coupling.

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