COA 305

B.A./B.Sc. VIth SEMESTER EXAMINATION, 2024-25

COMPUTER APPLICATION

(Software Engineering & Project Management)

Date (तिथि) : _____

Paper ID
(To be filled in the OMR Sheet)

5626

अनुक्रमांक (अंकों में) :
Roll No. (In Figures) :

अनुक्रमांक (शब्दों में) : _____

Roll No. (In Words) : _____

Time : 1:30 Hrs.
समय : 1:30 घण्टे

Max. Marks : 75
अधिकतम अंक : 75

नोट : पुस्तिका में 50 प्रश्न दिये गये हैं, सभी प्रश्न करने होंगे। प्रत्येक प्रश्न 1.5 अंक का होगा।

1. What does a directed are or line signify ?

   (A) Data flow

   (B) Data process

   (C) Data stores

   (D) None of the above

2. What is the first step in the software development lifecycle ?

   (A) System design

   (B) Coding

   (C) system testing

   (D) Preliminary Investigation and analysis

3. Which of the following is used to predict the effort as a function of LOC or FP ?

   (A) CO CO MO

   (B) FP-based estimation

   (C) Both COCOMO and FP-based estimation

   (D) Process-based estimation

4. Which of the following word correctly Summarized the importance of Software design ?

   (A) Quality

   (B) Complexity

   (C) Efficiency

   (D) Accurancy

5. Which activity does not come in project planning ?

    (A)   Estimation

    (B)   Testing

    (C)   Staffing

    (D)   Risk management

6. Which of the following is used to define data structures and relationships in a

    system ?

    (A)   Data dictionary

    (B)   DFD

    (C)   UML

    (D)   Decision Table

7. In data flow diagram which among the following Process is at the most detailed

    level ?

    (A)   Data flow

    (B)   Interface

    (C)   Functional Primitive

    (D)   Transform description

8. In a DFD, an Input / output receives is generally represented by :

    (A)   An arrow

    (B)   A circle

    (C)   A rectangle

    (D)   A square

9. The four icons used in building Data flow Diagram (DFD) are :

(A) Flow, Source, Store and Process

(B) Flow, Process, Source and store

(C) Flow, Process, Source/Destination and store

(D) Source, Process, Destination and store

10. Which of the following is not a recognized Software project type under COCOMO model ?

(A) Embedded

(B) Semidetached

(C) Detached

(D) Organic

11. The COCOMO model is used for :

(A) Software analyses

(B) Software cost approximation

(C) Software cost estimation

(D) Software design

12. Estimation of Software development effort for organic software in basic COCOMO is

(A) $E = 2.0(KLOC)^{1.05}$ Per Month

(B) $E = 3.4(KLOC)^{1.06}$ Per Month

(C) $E = 2.4(KLOC)^{1.05}$ Per Month

(D) $E = 2.4(KLOC)^{1.07}$ Per Month

13. Which of the following is not a software Configuration Management activity ?

   (A)   Configuration item identification

   (B)   Risk Management

   (C)   Release Management

   (D)   Branch Management

14. Which of the following process is concerned with analyzing the costs and benefits of proposed changes ?

   (A)   Change Management

   (B)   Version Management

   (C)   System building

   (D)   Release Management

15. Which of the following is a collection of Component versions that make up a system ?

   (A)   Version

   (B)   Codeline

   (C)   Baseline

   (D)   Change control

16. Which of the following Components is not a part of Entity-Relationship diagrams ?

   (A)   Ellipse

   (B)   Double rectangle

   (C)   Double lines

   (D)   Hexagons

17. Attributes in Entity-Relationship diagram are represented by -

   (A)   Circle

   (B)   Rectangle

   (C)   Ellipse

   (D)   Line

18. Which of the following is not an appraisal Cost in SQA ?

   (A)   Inter-Process inspection

   (B)   Maintenance

   (C)   Quality planning

   (D)   Testing

19. Quality Management in Software engineering is called as :

   (A)   SQA

   (B)   SQM

   (C)   SQI

   (D)   SQA and SQM

20. Which of the following are objectives for FTR ?

   (A)   Allow Senior staff members to correct errors

   (B)   Assess Programmer Productivity

   (C)   Determining who introduced an error into a Program

   (D)   Uncover errors in software works products

21. The ISO Quality assurance standard that applies to software engineering is :

    (A)   ISO 9000

    (B)   ISO 9001

    (C)   ISO 9002

    (D)   ISO 9003

22. Which of the following model has a major downfall to a software development life cycle in terms of The coding phase ?

    (A)   4GT Model

    (B)   Waterfall Model

    (C)   RAD Model

    (D)   Spiral Model

23. Which one of the following activities is not recommended for software Processes in software engineering ?

    (A)   Software evaluation

    (B)   Software verification

    (C)   Software testing and validation

    (D)   Software designing

24. What does a data store symbol in the Data flow diagram signify ?

    (A)   Logical file

    (B)   Physical file

    (C)   Data structure

    (D)   All of the above

25. What is developed by utilizing the historical cost function ?

   (A) Parkinson's Law

   (B) Expert Judgement

   (C) Algorithmic cost modeling

   (D) Estimation by analogy

26. Which is not a direct measure of software engineering process.

   (A) Effort

   (B) Cost

   (C) Efficiency

   (D) All of the above

27. Which parameters are essentially used while computing the software development cost ?

   (A) Hardware and software costs

   (B) Effort costs

   (C) Travel and Training costs

   (D) All of the above

28. Which of the following is not included in the total effort cost ?

   (A) Costs of lunch time food

   (B) Costs of supporting staffs

   (C) Costs of networking and communications

   (D) Costs of air conditioning and lighting in the office space

29. The 4GT models acts as a package of :

   (A)   Software tools

   (B)   Software programs

   (C)   CASE tools

   (D)   None of the above

30. Which one is not an approach to estimate the cost of the software ?

   (A)   Heuristic

   (B)   Empirical

   (C)   Critical

   (D)   Analytical

31. Which of the following is not a characteristic of software ?

   (A)   Software is intangible

   (B)   Software does not wear out

   (C)   Software is not engineered

   (D)   Software is customizable

32. Which software development model is best suited for large and complex systems ?

   (A)   Waterfall Model

   (B)   Agile Model

   (C)   Prototyping Model

   (D)   Spiral Model

33. Which of the following is not a software process model ?

    (A)   Waterfall model

    (B)   Spiral Model

    (C)   Agile Model

    (D)   Hardware Model

34. Which of the following is a project constraint ?

    (A)   Time

    (B)   Cost

    (C)   Scope

    (D)   All of the above

35. What is project scope ?

    (A)   A list of programming language used

    (B)   A set of project objectives and deliverables

    (C)   The number of people working on a project

    (D)   A project's duration

36. Which project management document defines project goals and scope ?

    (A)   Project Charter

    (B)   Test Plan

    (C)   Software Requirement Specification

    (D)   Gantt Chart

37. What is software re-engineering ?

    (A)   Creating new software from scratch

    (B)   Improving and modifying existing software

    (C)   Debugging software errors

    (D)   Increasing software complexity

38. What is CASE tool ?

    (A)   A tool for debugging software

    (B)   A software used to automate software development

    (C)   A tool for managing project

    (D)   A tool for analyzing network traffic

39. Which of the following is not a part of software configuration management ?

    (A)   Version Control

    (B)   Change Management

    (C)   Debugging

    (D)   Code Review

40. What is perfective maintenance ?

    (A)   Fixing bugs

    (B)   Making improvements based on user needs

    (C)   Adapting to new hardware

    (D)   Preventing future failures

41. What is the primary objective of software quality assurance (SQA) ?

    (A)   To find and fix bugs

    (B)   To ensure software quality standards are followed

    (C)   To complete software development faster

    (D)   To automate testing

42. Which testing method focuses on the flow of data through the system ?

    (A)   Functional Testing

    (B)   Structural Testing

    (C)   Data Flow Testing

    (D)   Load Testing

43. Which of the following is type of software testing ?

    (A)   Black Box Testing

    (B)   White Box Testing

    (C)   Unit Testing

    (D)   All of the above

44. What is the purpose of a feasibility study in project management ?

    (A)   Check if the project is possible

    (B)   Increase project budget

    (C)   Reduce the project time line

    (D)   Assign tasks to team members

45. Which phase of project management involves tracking progress ?

    (A)   Initiating

    (B)   Planning

    (C)   Execution

    (D)   Monitoring and Controlling

46. Which tool is used for project scheduling ?

    (A)   Gantt Chart

    (B)   UML Diagram

    (C)   ER Diagram

    (D)   Agile Board

47. What is the first step in project planning ?

    (A)   Testing

    (B)   Requirement gathering

    (C)   Deployment

    (D)   Coding

48. What is the primary goal of project management ?

    (A)   Completing projects on time and within budget

    (B)   Writing efficient code

    (C)   Eliminating bugs

    (D)   Increasing complexity

49. Which methodology uses sprints for development ?

(A) Waterfall

(B) Scrum

(C) Spiral

(D) V-Model

50. Which model allows iterative development ?

(A) Waterfall

(B) Incremental

(C) Big Bang

(D) Code and Fix

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