Reg. No.															

B.Tech. DEGREE EXAMINATION, JANUARY 2024

Fourth Semester

18CSC206J – SOFTWARE ENGINEERING AND PROJECT MANAGEMENT

(For the candidates admitted from the academic year 2020-2021 & 2021-2022)

Note:

(i) **Part - A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40th minute.

(ii) **Part - B & Part - C** should be answered in answer booklet.

Time: 3 hours | Max. Marks: 100

PART – A (20 × 1 = 20 Marks)

Answer **ALL** Questions

	Marks	BL	CO	PO
1. Agile software development is based on (A) Incremental development (B) Iterative development (C) Linear development (D) Both incremental and iterative development	1	1	1	11
2. Which of the following life cycle model can be chosen if the development team has less experience on similar projects? (A) Spiral (B) Waterfall (C) RAD (D) Iterative	1	1	5	1
3. Which is one of the most important stakeholders from the following? (A) Entry level personnel (B) Middle level stakeholder (C) Managers (D) Users of the software	1	1	4	5
4. Efficiency in a software product does not include _____. (A) Responsiveness (B) Memory utilization (C) Licensing (D) Processing time	1	2	1	2
5. Who designs and implements database structures? (A) Programmers (B) Project managers (C) Technical writers (D) Database administrators	1	1	5	11
6. ER model shows the (A) Static view (B) Functional view (C) Dynamic view (D) Both functional and dynamic view	1	1	1	1
7. Which of the following is a mechanism that allows several objects in a class hierarchy to have different methods with the same name? (A) Aggregation (B) Inheritance (C) Polymorphism (D) Encapsulation	1	1	1	1
8. Which of the following is not a web engineering project metrics? (A) Number of static content object (B) Number of dynamic content objects (C) Number of inherited objects (D) Word count	1	1	2	1

9. System prototyping helps the designer in 1 1 2 3

(A) Making the program understand how the system will function
(B) Giving a demo of the software to the manager to whom he reports
(C) Communicating to the user quickly how the system will look like when develop and get a feedback
(D) Not giving demo of software to the manager to whom he records

10. Which of the following is not included in architectural design decisions? 1 1 2 3

(A) Type of the application
(B) Distribution of the system
(C) Architectural styles
(D) Testing the system

11. Which view in architectural design shows the key abstractions in the system as objects or object classes? 1 2 4 2

(A) Physical
(B) Development
(C) Logical
(D) Process

12. _____ is the most formal type of review, which is a kind of static testing to aerial the defect multiplication at a stage 1 1 3 5

(A) Code inspection
(B) Coding
(C) Debugging
Code freezer

13. Which one of the following term describes testing? 1 1 3 3

(A) Finding broken code
(B) A stage of all projects
(C) Evaluating deliverable to find errors
(D) None of the mentioned

14. Alpha testing is done at 1 1 5 11

(A) Developer's end
(B) User's end
(C) Tester's end
(D) Developer's and user's end

15. Maintenance testing in performed using methodology? 1 1 2 3

(A) Retesting
(B) Sanity testing
(C) Breadth test and depth test
(D) Confirmation testing

16. What should a project manager do or follow to ensure clear boundaries for project completion? 1 1 3 3

(A) Scope verification
(B) Completing a scope statement
(C) Scope definition
(D) Risk management plan

17. _____ is a type of product release in which the product features is complete and all development done, mostly done by users. 1 1 3 3

(A) Alpha release
(B) Normal release
(C) Internal release
(D) Beta release

18. _____ of a software product may be essential either to rectify some bugs observed while the system is in use, or to enhance the performance of the system. 1 1 4 1

(A) Corrective maintenance
(B) Adaptive maintenance
(C) Perfective maintenance
(D) Preventive maintenance

19.	_____ engineering is most useful when non existent on sketch documentation is available for the software product. (A) Forward (B) Re (C) Reverse (D) Back	1	1	5	1
20.	_____ is a reason for software maintenance in which the software or hardware platform on which the software product runs get obsolete. (A) Software defects (B) Change in user requirements (C) Technology obsolescence (D) New user requirement	1	1	4	3

PART – B (5 × 4 = 20 Marks)
Answer **ANY FIVE** Questions

		Marks	BL	CO	PO
21.	Brief about any four Requirements Elicitation Techniques.	4	2	1	1
22.	What are the generic process framework activities?	4	1	2	9
23.	List the characteristics of a good software design.	4	2	3	5
24.	Write about the software design methods.	4	2	2	3
25.	Summarize the different kinds of source code reviews performed.	4	1	3	3
26.	Differentiate between verification and validation.	4	2	4	2
27.	List the software product release types.	4	3	5	5

PART – C (5 × 12 = 60 Marks)
Answer **ALL** Questions

		Marks	BL	CO	PO
28. a.	Elaborate the evolutionary process models (any two).	12	4	1	11
	(OR)				
b.	Compute the function point, productivity and cost per function for the following data (i) Number of EI = 24 (weight average, 4) (ii) Number of EO = 46 (weight average, 4) (iii) Number of EQ = 4 (weight complex, 6) (iv) Number of ILF = 4 (weight average, 10) (v) Number of EIF = 2 (weight simple, 5) (vi) Effort = 36.9 Person-month (vii) Cost = $7744/ month Various processing complexity factors are 4, 1, 0, 3, 3, 5, 4, 4, 3, 3, 2, 2, 4, 5.	12	5	1	3
29. a.	Discuss any three software design techniques.	12	3	2	3
	(OR)				
b.	Explain different architectural styles.	12	3	2	5

30. a.	Explain the software construction characteristics.	12	4	3	3
	(OR)				
b.	Write short note on (i) Software code reuse methods (ii) Construction quality techniques in iterative models	8+4	4	3	3
31. a.	What are the verification and validation techniques? Explain.	12	4	4	5
	(OR)				
b.	Describe briefly (i) Test life cycle (ii) Defect life cycle	6+6	6	4	5
32. a.	Write brief note on (i) Maintenance life cycle (ii) Maintenance engineering techniques	6+6	4	5	1
	(OR)				
b.	Elaborate the software maintenance process models.	12	2	5	11

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