3E1205

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B. Tech. III - Sem. (Main / Back) Exam., February - 2023
Artificial Intelligence & Data Science
3AID4-07 Software Engineering
AID, CAI, CS, IT

Time: 3 Hours   **Maximum Marks: 70**

Instructions to Candidates:

Attempt all ten questions from Part A, five questions out of seven questions from Part B and three questions out of five from Part C.

Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used /calculated must be stated clearly.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL _____   2. NIL _____

PART – A

(Answer should be given up to 25 words only)   **[10×2=20]**

All questions are compulsory

Q.1 What are the characteristics of good software?

Q.2 Write down the name of any four object oriented programming languages.

Q.3 What is SRS?

Q.4 What do you mean by Actor?

Q.5 What is difference the between verification and validation?

Q.6 What do you mean by effort estimation?

Q.7 What do you mean by space complexity?

Q.8 Explain Input-Process-Output cycle.

Q.9 Differentiate application software with system software.

Q.10 Explain software design documentation.

PART – B

(Analytical/Problem solving questions)   [5×4=20]
Attempt any five questions

Q.1 What are the differences between data flow diagrams and control flow diagram? Explain.

Q.2 Explain feasibility analysis in detail.

Q.3 Explain COCOMO estimation model in detail.

Q.4 Explain unified modeling language in brief.

Q.5 Explain finite state machine (FSM) models in detail.

Q.6 Explain LOC and FP estimation in detail.

Q.7 Explain class and object relationships in detail.

PART – C

(Descriptive/Analytical/Problem Solving/Design Questions)   [3×10=30]
Attempt any three questions

Q.1 Explain various software development life cycle models in detail.

Q.2 Explain various types of diagrams used in software design phase in detail.

Q.3 What is role of software requirement analysis phase? How is it done? Explain in detail.

Q.4 What do you mean by software project Management? What are issues that we consider in software project management? Explain in detail.

Q.5 How can object oriented analysis be done during software development process? Explain in detail.