

B3.3-R4 : SOFTWARE ENGINEERING AND CASE TOOLS

NOTE :

1. Answer question 1 and any FOUR questions from 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

Total Time : 3 Hours

Total Marks : 100

1. (a) What are the software characteristics ? Discuss briefly any four.
(b) What is a DFD ? Discuss its components briefly.
(c) What do you understand by software architecture ? Describe briefly.
(d) What are software testing tools ? Why do we need them ?
(e) Differentiate between functional and non-functional requirements.
(f) What do you understand by software reliability ?
(g) Briefly describe the clean room approach to software engineering. (7x4)
2. (a) Differentiate between Waterfall and Spiral model of software development using suitable diagrams.
(b) Discuss the different components of an ER diagram. (9+9)
3. (a) What is a data dictionary ? Highlight the components, uses, features and importance of a data dictionary.
(b) Discuss the role of modular design in software engineering. (9+9)
4. (a) What are the different types of CASE Tools used in software engineering ? Discuss each briefly.
(b) What do you understand by coding standards ? Why are they useful ? Discuss 5 commonly known coding standards. (9+9)
5. (a) What are the 3 golden rules of a user interface design ? Describe.
(b) What do you understand by software configuration and software configuration management ? Discuss the need and importance of software configuration management. (9+9)
6. (a) Explain the role and importance of ISO : 9000 and 9001 Quality standards.
(b) What do you understand by software documentation ? Why is it needed ? Discuss the common types of software documentation. (9+9)
7. (a) What do you understand by UML ? How is it useful in software engineering ? Discuss the different behavioral diagrams available in UML.
(b) What are the different activities in software reengineering ? (9+9)

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