



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

B.Tech IV Semester End Examinations (Regular/Supplementary) - July, 2021

Regulation: R18

SOFTWARE ENGINEERING

Time: 3 Hours

(CSE|IT)

Max Marks: 70

Answer FIVE Questions choosing ONE question from each module
(NOTE: Provision is given to answer TWO questions from any ONE module)

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT – I

1. (a) Describe spiral model and RAD model with suitable illustration. [7M]
(b) Explain the principles which play a major role in development of software. [7M]
2. (a) What are the necessities of life cycle model? Elaborate on the various issues of software life cycle. [7M]
(b) Explain briefly about component- based development model and discuss the importance of end value analysis. [7M]

UNIT – II

3. (a) What is the difference between SRS document and design document and write the contents that should contain in the SRS document and design document. [7M]
(b) Explain the requirements engineering process functions and explain who should be involved in requirements review? Draw a process model showing how a requirements review might be organized. [7M]
4. (a) Discuss in detail about requirement elicitation process and explain the importance of Ethnography. [7M]
(b) Explain the feasibility studies. What are the outcomes? Does it have either implicit or explicit effects on software requirement collection? [7M]

UNIT – III

5. (a) What is unified modelling language (UML)? State its advantages and explain various symbols of it. [7M]
(b) Explain the steps involved in the prototyping and write a short notes on data modeling. [7M]
6. (a) Draw and explain activity and sequence diagram for online flight reservation system. [7M]
(b) What is the use of context diagram? Draw a level-1 DFD and STD for photocopier software. [7M]

UNIT – IV

7. (a) Who should perform the validation test—the software developer or the software user? Justify your answer. [7M]
(b) List the various testing strategies to software testing? Discuss them briefly. [7M]
8. (a) Discuss in detail about basis path testing and explain its importance. [7M]
(b) What is the necessity of unit testing? Write down all unit test considerations. [7M]

UNIT – V

9. (a) Discuss in detail about software evolution and software maintenance process. [7M]
(b) Explain in detail the constructive cost model (COCOMO) II model with its all constraints. [7M]
10. (a) Describe the process of integrating metrics within the software process. [7M]
(b) Explain the CASE repository functions in detail and justify the statement “Software maintenance is costlier”. [7M]

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