



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

SOFTWARE ENGINEERING

Question Bank

UNIT:1-2

B. Tech. III YEAR A & B / BATCH : 2021 -25

Dr. Archana Sharma

S.NO	QUESTIONS	CO	BLOOM'S LEVEL
1	Describe the various categories of Software?	CO1	L1
2	Describe the waterfall model and which process model do you suggest to overcome the deficiency of the Waterfall Model.	CO1	L2
5	Discuss various types of software products?	CO1	L2
6	Describe the advantage of adhering to life cycle models for software?	CO1	L2
7	Describe the two deficiencies in the waterfall model. Which process model do you suggest to overcome each deficiency?	CO1	L2
8	Compare between verification and validation with real life examples and justify your answer?	CO1	L3
9	Justify with two reasons why system engineers must understand the environment of a system?	CO1	L4
10	If you have to develop a word processing software product, what process models will you choose? Justify your answer.	CO1	L4
11.	Depict how RAD model and spiral model helps in solving a design issue.	CO1	L4

11	Apply the principles of agile software development and justify why should finance companies go for agile?	CO1	L3
12	Construct the use case diagram for ATM and Library management system	CO1	L3
13	Develop Software Requirement Specification document for hotel management system	CO1	L3
14	Describe evolutionary Prototyping with its advantages?	CO1	L2
15	Define the need of software estimation? Write down the steps involved in the Software Estimation Process?	CO2	L1
16	Illustrate the function point analysis for the size estimation of the software with FP attributes? Describe how FP is calculated with FP attributes and its weightage?	CO2	L2
17	Compute the function point, productivity, documentation, cost per function for the following data: Number of user inputs = 24 Number of user outputs = 46 Number of inquiries = 8 Number of files = 4 Number of external interfaces = 2 Effort = 36.9 p-m Technical documents = 265 pages User documents = 122 pages Cost = \$7744/ month Various processing complexity factors are: 4, 1, 0, 3, 3, 5, 4, 4, 3, 3, 2, 2, 4, 5.	CO2	L3
18	Justify the need for cost estimation and its advantages? Compare the COCOMO Model in Software Engineering with Function Point and explain in which business model the detailed COCOMO model is needed	CO2	L4

19	Compare the various types of COCOMO model and explain which model is best suited for financial organization.	CO2	L4																				
20.	How this PUTAM Model is different from the COCOMO Model , justify your answer with shortcomings of the COCOMO Model?	CO2	L4																				
22	How do you measure the cohesion and coupling? Examine the various types of Coupling for ATM System	CO2	L4																				
23	Suppose that a project was estimated to be 400 KLOC. Calculate effort & time for each of 3 modes of development.	CO2	L3																				
	<table border="1"> <thead> <tr> <th>Software Product Type</th><th>a</th><th>b</th><th>c</th><th>d</th></tr> </thead> <tbody> <tr> <td>Organic</td><td>2 .4</td><td>1. 05</td><td>2 .5</td><td>0. 38</td></tr> <tr> <td>Semi-detached</td><td>3 .0</td><td>1. 12</td><td>2 .5</td><td>0. 35</td></tr> <tr> <td>Embedded</td><td>3 .6</td><td>1. 20</td><td>2 .5</td><td>0. 32</td></tr> </tbody> </table>	Software Product Type	a	b	c	d	Organic	2 .4	1. 05	2 .5	0. 38	Semi-detached	3 .0	1. 12	2 .5	0. 35	Embedded	3 .6	1. 20	2 .5	0. 32		
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24.	With the help of a suitable example, explain how the inheritance feature of the object oriented paradigm helps in code reuse?	CO2	L4																				
25.	Analyze the various approaches of Software Design?	CO2	L4																				
26.	Justify that how the principles of abstraction and decomposition are used to arrive at a good design.	CO2	L4																				
27.	How the Object Oriented design is different from other approaches of Software Design. Construct the Use Case Diagram and Class Diagram of Library Management System?	CO2	L4																				
28.	When doing UI design? Are graphic designers and UI designers are same? Describe the core principles of user interface design?	CO2	L4																				
29	How do human cognition capabilities and limitations influence human-computer user interface designing? Justify your answer.	CO2	L5																				

30	Why a count of the different screens of the GUI of an application may not be an accurate measure of the size of the user interface? Suggest a more accurate measure of the size of the user interface of an application. Explain how it overcomes the difficulties with the number of screens measured.	CO2	L5
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