

KONGU ENGINEERING COLLEGE, PERUNDURAI 638 060

CONTINUOUS ASSESSMENT TEST 1 / 2+3

(Regulations 2020)

Month and Year : September 2023	Roll Number: 21CSR189
Programme : B.E	Date : 02.09.2023
Branch : CSE	Time : 2.30 pm to 4.00 pm
Semester : VI	
Course Code : 20CSE03	Duration : 1 ½ Hours
Course Name : Building Enterprise Applications	Max. Marks : 50

PART - A (10 × 2 = 20 Marks)
ANSWER ALL THE QUESTIONS

1.	List any four challenges faced by Enterprise applications	[CO1]	[K1]
2.	Differentiate waterfall model and iterative model	[CO1]	[K2]
3.	Mention the stages in life cycle of Enterprise Application	[CO1]	[K1]
4.	What are the different types of business modelling for enterprise applications performed by a business analyst?	[CO1]	[K1]
5.	Identify the actors and use cases for Hospital Management System	[CO1]	[K2]
6.	With your own example, sketch the include relationship among use cases in the use case diagram	[CO1]	[K2]
7.	Define view and view points	[CO2]	[K1]
8.	Define the four domains of enterprise architecture	[CO2]	[K1]
9.	Recall the different types of classes that are identified from the documented uses cases	[CO2]	[K1]
10.	Draw the association relationship among the customer and LoanProduct classes	[CO2]	[K2]

Part - B (4 × 10 = 40 Marks)
ANSWER ANY FOUR QUESTIONS

11.	i)	Demonstrate how you would formulate a strategy for acquiring and mastering the skills necessary for enterprise applications.	(6)	[CO1]	[K2]
	ii)	Assume you are software developer and you are going to develop a Tourism management system. After the development of the application narrate how you are going to measure the success of it	(4)	[CO1]	[K3]
12.		Visualize the hospital's management processes for managing inpatient and outpatient information within its premises by creating an AS-IS and TO-BE architecture diagram	(10)	[CO1]	[K3]
13.		Draw a use case diagram for the provided system. Identify the actors, use cases, and associations between the actors and use cases. In the process of	(10)	[CO1]	[K3]

	conducting an exam, an instructor initially informs the students about the exam date and the covered material. Subsequently, the instructor creates the exam paper, including sample solutions. The hall invigilator conducts the examination for the class and distributes answer booklets and question papers at the specified time and location. Students answer the questions and submit their papers to the hall invigilator. After collecting the papers, the hall invigilator hands over the exam papers to the instructor for grading. The instructor then records all the marks and returns the graded papers to the students.			
14.	Draw the different layers of logical architecture and explain in detail	(10)	[CO2]	[K2]

Bloom's Taxonomy Level	Remembering (K1)	Understanding (K2)	Applying (K3)	Analysing (K4)	Evaluating (K5)	Creating (K6)
Percentage	20	40	40	-	-	-

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KONGU ENGINEERING COLLEGE, PERUNDURAI 638 060
CONTINUOUS ASSESSMENT TEST 2

(Regulations 2020)

Month and Year : October & 2023	
Programme : B.E	Roll Number: 21CS2189
Branch : CSE	Date : 9.10.2023
Semester : V	Time : 9.15 a.m. to 10.45 a.m.
Course Code : 20CSE03	
Course Name : Building Enterprise Applications	Duration : 1 ½ Hours Max. Marks : 50

PART - A ($10 \times 2 = 20$ Marks)
ANSWER ALL THE QUESTIONS

1.	Architecture is said as "Blueprint for guiding the design of an application"? Justify your answer.	[CO2]	[K1]
2.	Draw an E-R diagram to show the Recursive relationship with your own example.	[CO2]	[K3]
3.	Difference between Synchronous and Asynchronous communication.	[CO2]	[K2]
4.	In the context of designing the presentation layer for the e-commerce website, why is it essential to incorporate responsive design principles, and how can they benefit users accessing the site from different devices and screen sizes?	[CO2]	[K3]
5.	List any four key elements of System Architecture Documentation.	[CO3]	[K1]
6.	How does the inclusion of middleware benefit enterprise application architecture? Analyze one key advantage it offers.	[CO3]	[K3]
7.	Define Storage Area Network.	[CO3]	[K1]
8.	Expand SAX, DOM, StAX and mention their roles in software development.	[CO3]	[K1]
9.	Mention the different approaches to design session management.	[CO3]	[K1]
10.	Define Service Oriented Architecture. How is enterprise service bus associated with it?	[CO3]	[K2]

Part - B ($3 \times 10 = 30$ Marks)
ANSWER ANY THREE QUESTIONS

11.	XYZ Financial Services is planning to build a Loan Management System application for Metro Bank. To develop the full application, the company has appointed three team leaders, with each team consisting of 10 associate software engineers. Each team is responsible for designing the presentation, business, and data access layers. However, since this application needs to communicate with an external bank, it is essential to draw the LoMS integration architecture model. Considering the multi-step nature of loan processing, how would you	(10)	[CO2]	[K3]
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		ensure the consistency of transactions and data across distributed systems in the LoMS and MetroBank's environment?			
12.		You are a lead software architect working with a healthcare organization, HealthTech Solutions. HealthTech Solutions operates a comprehensive healthcare management system that serves multiple hospitals, clinics, and medical facilities. The existing <u>data access layer</u> of the system is facing performance issues, leading to delays in patient care and administrative processes. Analyze the current challenges within the data access layer of HealthTech Solutions' healthcare management system and propose improvements to enhance efficiency, scalability, and data security while ensuring compliance with healthcare regulations.	(10)	[CO2]	[K2]
13.		Elaborate the fundamental roles and significance of <u>middleware</u> in the context of infrastructure architecture and design for enterprise applications. Provide specific examples of how middleware facilitates the integration of various components and systems within the infrastructure.	(10)	[CO3]	[K3]
14.		In the context of establishing a new branch office at Noida, what are the key considerations when selecting <u>IT hardware and software</u> components to ensure efficient and secure operations? How would you balance the need for performance, scalability, and cost-effectiveness in your hardware and software choices?	(10)	[CO3]	[K2]

Bloom's Taxonomy Level	Remembering (K1)	Understanding (K2)	Applying (K3)	Analysing (K4)	Evaluating (K5)	Creating (K6)
Percentage	20%	40%	40%			

CONTINUOUS ASSESSMENT TEST 3

(Regulations 2020)

and Year: November & 2023	Roll Number: 21CSR184
ame : B.E	Date : 17.11.2023
: CSE	Time : 2.30 pm to 4.00 pm
er : V	
e Code : 20CSE03	Duration : 1 ½ Hours
e Name : Building Enterprise Applications	Max. Marks : 50

PART - A ($10 \times 2 = 20$ Marks)
ANSWER ALL THE QUESTIONS

In XYZ company, there is a blueprint architecture for the Bank application. Now, they want to convert the design into code. List the activities involved in the code phase.	[CO4]	[K3]
Define cyclomatic complexity	[CO4]	[K1]
Compare and contrast EJB 3.0 and spring framework.	[CO4]	[K2]
Mention any four important attributes of code profiling.	[CO4]	[K1]
List out the key objectives of static code analysis.	[CO4]	[K1]
Differentiate load testing and volume testing in an enterprise application.	[CO5]	[K2]
Justify why Endurance testing is important in an application development	[CO5]	[K3]
Name any four objective of globalization testing	[CO5]	[K1]
Draw the hierarchy of enterprise application environments and their respective testing levels.	[CO5]	[K1]
How white box testing is different from black box testing	[CO5]	[K1]

Part - B ($3 \times 10 = 30$ Marks)
ANSWER ANY THREE QUESTIONS

Elaborate the role and significance of logging, caching, exception handling and session management in the construction of an ERP system's infrastructure service layer.	(10)	[CO4]	[K2]
You are a senior software engineer at a large software development company. Your team is responsible for maintaining a complex enterprise application used by thousands of customers. Lately, there have been increasing reports of software crashes, performance bottlenecks, and unexpected behavior in the application. The company's reputation is at stake, and customers are becoming increasingly	(10)	[CO4]	[K3]

		frustrated. You have been tasked with addressing these issues and improving the software quality. One approach your team wants to explore is the use of dynamic code analysis tools. Describe the steps you would take to implement dynamic code analysis in this scenario. What are the key considerations when selecting a dynamic analysis tool? How can dynamic analysis help identify and mitigate the reported issues in the application?		
13.		HealthTech Solutions is developing a comprehensive Healthcare Information System (HIS) for a network of hospitals. The HIS aims to streamline patient care, manage medical records efficiently, and improve overall healthcare delivery. As the lead System Tester, your role is critical in ensuring the reliability, security, and performance of the HIS. Identify various system testing techniques that can be carried out and write some test cases for this given scenario	(10)	[CO5]
14.	(i)	In preparation for the rollout of an enterprise application, outline different rollout strategies and explain it	(5)	[CO5]
	(ii)	Describe various steps involved in rolling out the enterprise application	(5)	[CO5]

Bloom's Taxonomy Level	Remembering (K1)	Understanding (K2)	Applying (K3)	Analysing (K4)	Evaluating (K5)	Creating (K6)
Percentage	20%	40%	40%	-	-	-