CARE COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ODD SEMESTER 2021-2022 TIME TABLE – UNIT TEST- I (04.09.2021 TO 07.09.2021)

DATE	SESSION	IV YEAR		III YEAR		II YEAR	
04.09.2021	FN 10:00 AM TO 10.45 AM	IT8075	SOFTWARE PROJECT MANAGEMENT	CS8591	COMPUTER NETWORKS	MA8351	DISCRETE MATHEMATICS
	AN 3:00 P.M TO 3.45 P.M	OCY751	WASTE WATER TREATMENT	CS8592	OBJECT ORIENTED ANALYSIS AND DESIGN	EC8395	COMMUNICATION ENGINEERING
06.09.2021	FN 10:00 AM TO 10.45 AM	CS8083	MULTI-CORE ARCHITECTURE AND PROGRAMMING	MA8551	ALGEBRA AND NUMBER THEORY	CS8351	DIGITAL PRINCIPLES AND SYSTEM DESIGN
	AN 3:00 P.M TO 3.45 P.M	CS8791	CLOUD COMPUTING	CS8501	THEORY OF COMPUTATION	CS8391	DATA STRUCTURES
07.09.2021	FN 10:00 AM TO 10.45 AM	CS8792	CRYPTOGRAPHY AND NETWORK SECURITY	EC8691	MICROPROCESSOR AND MICROCONTROLLERS	CS8392	OBJECT ORIENTED PROGRAMMING
	AN 3:00 P.M TO 3.45 P.M	MG8591	PRINCIPLES OF MANAGEMENT	OCE551	AIR POLLUTION AND CONTROL ENGINEERING	****	*********

EXAM CELL

PRINCIPAL

CARE COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ODD SEMESTER 2021-2022 TIME TABLE – CYCLE TEST- I (30.09.2021 TO 04.10.2021)

DATE	SESSION	IV YEAR		III YEAR	
30.09.2021	FN 10:00 AM TO 11.30 AM	IT8075	SOFTWARE PROJECT MANAGEMENT	CS8591	COMPUTER NETWORKS
	AN 2:30 P.M TO 4.00 P.M	OCY751	WASTE WATER TREATMENT	CS8592	OBJECT ORIENTED ANALYSIS AND DESIGN
01.10.2021	FN 10:00 AM TO 11.30 AM	CS8083	MULTI-CORE ARCHITECTURE AND PROGRAMMING	MA8551	ALGEBRA AND NUMBER THEORY
	AN 2:30 P.M TO 4.00 P.M	CS8791	CLOUD COMPUTING	CS8501	THEORY OF COMPUTATION
04.10.2021	FN 10:00 AM TO 11.30 AM	CS8792	CRYPTOGRAPHY AND NETWORK SECURITY	EC8691	MICROPROCESSOR AND MICROCONTROLLERS
	AN 2:30 P.M TO 4.00 P.M	MG8591	PRINCIPLES OF MANAGEMENT	OCE551	AIR POLLUTION AND CONTROL ENGINEERING

EXAM CELL

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CARE COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ODD SEMESTER 2021-2022 TIME TABLE – UNITTEST- II (12.10.2021 TO 16.10.2021)

DATE	SESSION	IV YEAR		III YEAR		II YEAR	
12.10.2021	FN 10:00 AM TO 10.45 AM	IT8075	SOFTWARE PROJECT MANAGEMENT	CS8591	COMPUTER NETWORKS	MA8351	DISCRETE MATHEMATICS
	AN 3:00 P.M TO 3.45 P.M	OCY751	WASTE WATER TREATMENT	CS8592	OBJECT ORIENTED ANALYSIS AND DESIGN	EC8395	COMMUNICATION ENGINEERING
13.10.2021	FN 10:00 AM TO 10.45 AM	CS8083	MULTI-CORE ARCHITECTURE AND PROGRAMMING	MA8551	ALGEBRA AND NUMBER THEORY	CS8351	DIGITAL PRINCIPLES AND SYSTEM DESIGN
	AN 3:00 P.M TO 3.45 P.M	CS8791	CLOUD COMPUTING	CS8501	THEORY OF COMPUTATION	CS8391	DATA STRUCTURES
16.10.2021	FN 10:00 AM TO 10.45 AM	CS8792	CRYPTOGRAPHY AND NETWORK SECURITY	EC8691	MICROPROCESSOR AND MICROCONTROLLERS	CS8392	OBJECT ORIENTED PROGRAMMING
	AN 3:00 P.M TO 3.45 P.M	MG8591	PRINCIPLES OF MANAGEMENT	OCE551	AIR POLLUTION AND CONTROL ENGINEERING	****	*********

EXAM CELL

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CARE COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ODD SEMESTER 2021-2022 TIME TABLE – CYCLE TEST- II (08.11.2021 TO 10.11.2021)

DATE	SESSION	IV YEAR		III YEAR		II YEAR	
08.11.2021	FN 10:00 A.M TO 11.30 A.M	IT8075	SOFTWARE PROJECT MANAGEMENT	CS8591	COMPUTER NETWORKS	MA8351	DISCRETE MATHEMATICS
	AN 02:15 P.M TO 3.45 P.M	OCY751	WASTE WATER TREATMENT	CS8592	OBJECT ORIENTED ANALYSIS AND DESIGN	EC8395	COMMUNICATION ENGINEERING
09.11.2021	FN 10:00 A.M TO 11.30 A.M	CS8083	MULTI-CORE ARCHITECTURE AND PROGRAMMING	MA8551	ALGEBRA AND NUMBER THEORY	CS8351	DIGITAL PRINCIPLES AND SYSTEM DESIGN
	AN 02:15 P.M TO 3.45 P.M	CS8791	CLOUD COMPUTING	CS8501	THEORY OF COMPUTATION	CS8391	DATA STRUCTURES
10.11.2021	FN 10:00 A.M TO 11.30 A.M	CS8792	CRYPTOGRAPHY AND NETWORK SECURITY	EC8691	MICROPROCESSOR AND MICROCONTROLLERS	CS8392	OBJECT ORIENTED PROGRAMMING
	AN 02:15 P.M TO 3.45 P.M	MG8591	PRINCIPLES OF MANAGEMENT	OCE551	AIR POLLUTION AND CONTROL ENGINEERING	****	*********

EXAM CELL

PRINCIPAL

CARE COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ODD SEMESTER 2021-2022 TIME TABLE – MODEL EXAMINATION (22.11.2021 TO 27.11.2021)

DATE	SESSION	IV YEAR		III YEAR		II YEAR	
22.11.2021 (MON)	FN 01:00 P.M TO 04.00 P.M	IT8075	SOFTWARE PROJECT MANAGEMENT	CS8591	COMPUTER NETWORKS	MA8351	DISCRETE MATHEMATICS
23.11.2021 (TUE)	FN 01:00 P.M TO 04.00 P.M	OCY751	WASTE WATER TREATMENT	CS8592	OBJECT ORIENTED ANALYSIS AND DESIGN	EC8395	COMMUNICATION ENGINEERING
24.11.2021 (WED)	FN 01:00 P.M TO 04.00 P.M	CS8083	MULTI-CORE ARCHITECTURE AND PROGRAMMING	MA8551	ALGEBRA AND NUMBER THEORY	CS8351	DIGITAL PRINCIPLES AND SYSTEM DESIGN
25.11.2021 (THU)	FN 01:00 P.M TO 04.00 P.M	CS8791	CLOUD COMPUTING	CS8501	THEORY OF COMPUTATION	CS8391	DATA STRUCTURES
26.11.2021 (FRI)	FN 01:00 P.M TO 04.00 P.M	CS8792	CRYPTOGRAPHY AND NETWORK SECURITY	EC8691	MICROPROCESSOR AND MICROCONTROLLERS	CS8392	OBJECT ORIENTED PROGRAMMING
27.11.2021 (SAT)	FN 01:00 P.M TO 04.00 P.M	MG8591	PRINCIPLES OF MANAGEMENT	OCE551	AIR POLLUTION AND CONTROL ENGINEERING	****	*********

EXAM CELL

PRINCIPAL

Roll Number							

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT OF CSE

CLASS:	:	III B.E CSE	MAX MARKS	:	40
SEMESTER:	:	V	DURATION	:	01.00 Hrs
SUBJECT:	:	OBJECT ORIENTED ANALYSIS AND DESIGN	CODE	:	CS8592
COURSE NO	:	C505	DATE	:	04.09.2021
ACADEMIC YEAR	:	2021 – 22 (ODD)	EXAM	:	Unit Test 1

PART – A (6 X 2 = 12 Marks)

I		ANSWER ALL QUESTIONS	BT level	CO
	1.	Define an object. Give example.	K1	C505.1
	2.	What is a use case diagram?	K2	C505.1
	3.	Classify the Three kinds of actors in use case.	K2	C505.1
	4.	Comparison between Include and Extend use case relationships.	K1	C505.1
	5.	What is Analysis and Design?	K1	C505.1
	6.	Give the different formats of Use cases.	K2	C505.1

PART – B (1 X 13 = 13 Marks)

II				ANSWER ALL QUESTIONS	Marks	BT Level	CO
	07.	(a)		Explain briefly about the Four Major phases of Unified Process with neat diagram	13	K1	C505.1
				(OR)			
		(b)		List the Various UML diagrams and explain the purpose of each diagram.	13	K2	C505.1
III				**ANSWER ALL QUESTIONS**	**Marks**	**BT Level**	**CO**
				PART – C (15 X 1 = 15 Marks)			
	8 to 22			Multiple Choice Questions https://forms.gle/Xzq5JLCKzwC15xom9	15	K1	C505.1

Blooms Levels: K1 - Remember, K2 – Understand, K3 - Apply, K4 - Analyze, K5 - Evaluate, K6 – Create

Faculty In-charge **HOD** **Principal**

Roll Number							

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT OF CSE

CLASS:	:	III B.E CSE	MAX MARKS	:	50
SEMESTER:	:	V	DURATION	:	1Hr 30 Min
SUBJECT:	:	OBJECT ORIENTED ANALYSIS AND DESIGN	CODE	:	CS8592
COURSE NO	:	C505	DATE	:	30.09.2021
ACADEMIC YEAR	:	2021 – 22 (ODD)	EXAM	:	Cycle Test 1

PART – A (7 X 2 = 14 Marks)

I		ANSWER ALL QUESTIONS	BT level	CO
	1.	Define an object. Give example.	K1	C505.1
	2.	What is a use case diagram?	K2	C505.1
	3.	Classify the Three kinds of actors in use case.	K2	C505.1
	4.	Define Class Diagram	K1	C505.2
	5.	List out the Components of Domain model?	K1	C505.2
	6.	Compare Aggregation and Composition.	K2	C505.2
	7.	Differentiate Class diagram and Interaction diagram.	K1	C505.2

PART – B (2 X 13 = 26 Marks)

II				ANSWER ALL QUESTIONS	Marks	BT Level	CO
	08.	(a)		Explain briefly about the Four Major phases of Unified Process with neat diagram	13	K1	C505.1
				(OR)			
		(b)		List the Various UML diagrams and explain the purpose of each diagram.	13	K2	C505.1
	09.	(a)		Design the Class diagram for Airline Reservation System. Find and draw conceptual classes for the same.	13	K3	C505.2
				(OR)			
		(b)		Explain in detail about domain Model refinement.	13	K2	C505.2
III				**ANSWER ALL QUESTIONS**	**Marks**	**BT Level**	**CO**
				PART – C (5 X 2 = 10 Marks)			
	10-14			Multiple Choice Questions https://forms.gle/1EgeGa1rfLJ7tLBP9	10	K1	C505.2

Blooms Levels: K1 - Remember, K2 – Understand, K3 - Apply, K4 - Analyze, K5 - Evaluate, K6 – Create

Faculty In-charge

HOD

Principal

Roll Number							

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT OF CSE

CLASS:	:	III B.E CSE	MAX MARKS	:	40
SEMESTER:	:	V	DURATION	:	1Hr
SUBJECT:	:	OBJECT ORIENTED ANALYSIS AND DESIGN	CODE	:	CS8592
COURSE NO	:	C505	DATE	:	12.10.2021
ACADEMIC YEAR	:	2021 – 22 (ODD)	EXAM	:	Unit Test II

PART – A (6 X 2 = 12 Marks)

I		ANSWER ALL QUESTIONS	BT level	CO
	1.	Explain how Synchronous and asynchronous messages are depicted in communication diagram.	K2	.C505.3
	2.	Differentiate Component and deployment diagram.	K1	C505.3
	3.	List the uses of UML Package Diagram	K1	C505.3
	4.	Define Package. Draw UML notation for Package.	K2	C505.3
	5.	When to use Deployment diagram?	K2	C505.3
	6.	Design the notation of Component and Node.	K1	C505.3

PART – B (1 X 13 = 13 Marks)

II				ANSWER ALL QUESTIONS	Marks	BT Level	CO
	07.	(a)		Create SSD for Library Management System	13	K3	C505.3
				(OR)			
		(b)		Explain package diagram in detail.	13	K2	C505.3
III				**ANSWER ALL QUESTIONS**	**Marks**	**BT Level**	**CO**
				PART – C (5 X 3 = 15 Marks)			
	8 - 12			Multiple Choice Questions https://forms.gle/36n3iFtqHpbBum717	15	K1	C505.3

Blooms Levels: K1 - Remember, K2 – Understand, K3 - Apply, K4 - Analyze, K5 - Evaluate, K6 – Create

Faculty In-charge **HOD** **Principal**

Roll Number							

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT OF CSE

CLASS	:	III B.E CSE	MAX MARKS	:	50
SEMESTER	:	V	DURATION	:	1Hr 30 Min
SUBJECT	:	OBJECT ORIENTED ANALYSIS AND DESIGN	CODE	:	CS8592
COURSE NO	:	C505	DATE	:	08.11.2021 (AN)
ACADEMIC YEAR	:	2021 – 22 (ODD)	EXAM	:	Cycle Test II

	PART – A (5 X 2 = 10 Marks)			
I	ANSWER ALL QUESTIONS		BT level	CO
	1.	Mention the steps involved in mapping design to code.	K2	C505.4
	2.	What are design patterns?	K2	C505.4
	3.	Define cohesion and coupling.	K1	C505.4
	4.	Define modular design.	K1	C505.4
	5.	List the behavioural patterns used during design phase of software development.	K2	C505.4

	PART – B (2 X 13 = 26 Marks)							
II	ANSWER ALL QUESTIONS					Marks	BT Level	CO
	6.	(a)	(i)		Draw activity diagram for library management system for borrowing books.	7	K3	C505.3
			(ii)		Write any six notations used in activity diagram.	6	K1	
					(OR)			
		(b)	(i)		Write short notes on component diagram.	5	K2	C505.3
			(ii)		Draw package diagram for banking system.	8	K3	
	7.	(a)			Evaluate the performance of bridge and strategy design patterns.	13	K2	C505.4
					(OR)			
		(b)	(i)		Write short notes on: Controller	6	K1	C505.4
			(ii)		Object Design	7		
III	ANSWER ALL QUESTIONS					Marks	BT Level	CO
	PART – C (1 X 14 = 14 Marks)							
	8.	(a)			Discuss in detail about deployment diagram and apply the same for NextGen POS system.	14	K2	C505.3
					(OR)			
		(b)			Analyze the steps involved for mapping design to code with an example.	14	K2	C505.4

Blooms Levels: K1 - Remember, K2 – Understand, K3 - Apply, K4 - Analyze, K5 - Evaluate, K6 – Create

Faculty In-charge | HOD | Principal

Reg Number	8	1	0	7	1	9	1	0	4			

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT OF CSE

CLASS	:	**III B.E CSE**	**MAX MARKS**	:	**100**
SEMESTER	:	**V**	**DURATION**	:	**3 Hours**
SUBJECT	:	**OBJECT ORIENTED ANALYSIS AND DESIGN**	**CODE**	:	**CS8592**
COURSE NO	:	**C505**	**DATE**	:	**23.11.2021**
ACADEMIC YEAR	:	**2021 – 22 (ODD)**	**EXAM**	:	**MODEL EXAM**

PART – A (10 X 2 = 20 Marks)				
I		**ANSWER ALL QUESTIONS**	**BT level**	**CO**
	1.	Define OOAD.	K1	505.1
	2.	List any two common ways to relate use cases and give suitable examples.	K1	505.1
	3.	State the objective of elaboration.	K2	505.2
	4.	What is multiplicity?	K1	505.2
	5.	State the purpose of UML activity diagram.	K2	505.3
	6.	Differentiate event, state and transition.	K2	505.3
	7	What is meant by cohesion?	K1	505.4
	8	"Coupling should be low" – Justify.	K2	505.4
	9	How is debugging differ from testing?	K1	505.5
	10	What is method testing?	K1	505.5

PART – B (5 X 13 = 65 Marks)							
II				**ANSWER ALL QUESTIONS**	**Marks**	**BT Level**	**CO**
	11	(a)		Elaborate use case modelling process with suitable example	13	K2	505.1
				(OR)			
		(b)		With suitable example explain the use case include relationship and extend relationship.	13	K2	505.1
	12	(a)		Differentiate Elaboration and Inception. List any five and artifacts related to Inception	13	K2	505.2
				(OR)			
		(b)		With an illustration, explain the class hierarchies. Also state the guidelines for defining a super class.	13	K2	505.2
	13	(a)		Justify the need for component and deployment diagrams with a suitable real time example.	13	K2	505.3
				(OR)			

		(b)		Differentiate state independent and state dependent objects. How to model them using State Machine Diagrams ?	13	K2	505.3
	14	(a)		What is GRASP? List and explain the nine object oriented design principles	13	K1	505.4
				(OR)			
		(b)		With an illustrated example diagram , brief on adapter pattern	13	K2	505.4
	15	(a)		What are test cases? List the guidelines for developing quality assurance test cases.	13	K2	505.5
				(OR)			
		(b)		Suggest strategies to carry out unit testing and integration testing in an object oriented development environment.	13	K2	505.5
III				**ANSWER ALL QUESTIONS**	**Marks**	**BT Level**	**CO**
				PART – C (1 X 15 =1 5 Marks)			
	16		(a)	A library has books, journals and laptops. Undergraduate students can borrow only books and journals. Post graduate students can borrow only journals and laptops. A maximum of three books, two journals and one laptop will be issued per student. If they return these items beyond ten days, a fine of Rs. 10 per day is levied for each book/journal. However, for late return of laptop a fine of Rs. 1,000 is levied. The librarian also periodically takes stock of books, journals and laptops and generates the report of lent out items and lost items. Construct the necessary activity diagrams for the operations carried out by the librarian.	15	K3	505.1
				(OR)			
			(b)	A mobile device has to be fitted with an alarm clock. The clock has a display unit to show the time of day. Using buttons, the user can set the hours and minutes fields individually. It supports a 24-hour display. It is possible to set one or two alarms. When an alarm fires, it will sound some noise. The user can turn it off, or choose to 'snooze'. If the user does not respond at all the alarm will turn off itself after 2 minutes. 'Snoozing' means to turn off the sound, but the alarm will fire again after some minutes of delay. This 'snoozing time' is pre-adjustable. Identify the functional requirements for the clock and model it with a use case diagram.	15	K3	505.2

Blooms Levels: K1 - Remember, K2 – Understand, K3 - Apply, K4 - Analyze, K5 - Evaluate, K6 – Create

Faculty In-charge **HOD** **Principal**

24/25

Part-A

(1) object and its example:

An object is an instance of a class. If the class is river then ganga is an object. The object posses all the properties of the class

(2). use case diagram:

use-case diagram describes the functionality provided by a system in terms of actors, their goals represented as use cases, and any dependencies among those use cases

(3). Three kinds of actors in use case

Actor is something that interacts with the system under discussion (SUD). There are three kinds of actors

* Primary actor
* Supporting actor
* offstage actor.

(5) Analysis and design:

* Analysis (do the right thing):

It emphasizes an investigation of the problem and requirements rather than a solution. For example if a new online trading system is desired, how will it be used? what are its functions?

Reg No: 810719104007

subject : Object Oriented Analysis And Design

17/25

CODE : CS8592

EXAM : UT-1

PART-A

1) object :-

An object is an instance of a class. For example - if the class is river then ganga is an object. the object posses all the properties of the class.

2) Use case-diagram :-

it describes the functionality provided by a system in terms of actors, their goals represented as use cases and any dependencies among those use cases.

SIC719104016
R Nithin karthick

10/25

PART - A

I.

1). Define object:

Object : A car is an object a real world entity: identifiy separate form its surrounding. A car has a well defined set of attributes in relation of other object.

2). what is use case diagram?

use case diagrams decribe the high level functions and scope of system. these diagram also identify the interactions between the system and its actors. The use cases and actors in use case diagrams describe what the system does and how the actors use it.

3). Clarify in three kinds of actors in use case

(i) primary actor

(ii). supporting actor

(iii). offstage actor

36/40

Object oriented Design and analysis

Part - A

1. Object :

→ An object is a combination of data and logic, the representation of some real world entity.

→ An object is a real-world element in an object environment that may have a physical or a conceptual existence.

→ Object can be modeled according to the needs of the application.

Eg:-

A customer, bike, etc.

2. use case diagram :

→ A use case diagram describes how a system interacts with outside actors.

→ It is a graphical representation of the interaction among the elements of a system.

→ Each use case represents a piece of functionality that a system provides to its given user.

→ It identifies the functionality of a system.

3. Three kinds of actors in use case :

There are three kinds of actors in use case.

They are, 1) Primary actor.
2) Supporting actor
3) Offstage actor.

R. Madhan prasath
3rd yr CSE
OOAD - CS8592.

28/40

Part - A

(1). Define an object. Give example:

A car is an object or real-world entity, identifiably separate from its surroundings. A car has a well-defined set of attributes in relation to other objects.

(2). use case diagram:

use case diagram describes the high level functions and scope of a system. those diagrams also identify the interactions between the system and its actors.

(3). → primary Actor - has user goals fulfilled through using services of the SUD.

→ Supporting Actor - provides a service (information) to the SUD.

→ offstage Actor - Has an interest in the behaviour of the use case, but is not primary or supporting.

PART- A

9/40

1. object:

-> An object is a combination of data and logic, the representation of some real world entity

-> An object is a real world element is an object environment that may have a physical or a conceptual existence

-> Object can be modeled according to the needs of the application

eg:-

A customer, bike, a car etc.

2. use case diagram:

-> A use case diagram describes how a system interacts with outside actors

-> It is a graphical representation of the interaction among the elements and system

-> Each use case representation a piece of functionality that a system provides to a given user.

-> It identifies the functionality of a system

12/10/21 CS8592 - OOAD [UT-II]

PART-A

22/25

1)

1) Synchronous message :-

* A synchronous message requires a response before the interaction can continue

* If a caller sends a synchronous message, it must wait until message is done, such as entering a subroutine

→ (filled arrow)

A synchronous message :-

* Asynchronous messages don't need a reply for interaction to continue

* If a caller sends an asynchronous message, it can continue processing and doesn't have to wait for a response

→ (stick arrow)

OBJECT oriented analysis

1. Synchronous

A. Synchronous message requires a response before the interaction can continue. It's usually drawn using a line with solid arrowhead pointing from one object to another

Asynchronous :

Asynchronous messages don't need a reply for interaction to continue

2. * component diagram are dependent upon the classes interfaces, which are part of class/object diagram

* The deployment diagram is dependent upon the components which are used to make a component diagram

CS8592 - Object Oriented Analysis and Design

Unit Test - II

12/25

Part - A

1A:- An asynchronous message call does not wait for a response. They are used in multi-threaded environments such as .NET and Java.

The UML notation for asynchronous calls is a stick arrow message; regular synchronous (blocking) calls are shown with a filled arrow.

2A:- Component Diagram - describes how a software system is split up into components and shows the dependencies among these components.

Deployment Diagram - describes the hardware used in system implementations and the execution environments and artifacts deployed on the hardware.

3A:- → It is used in large scale systems to picture dependencies between major elements in the system.

→ Package diagrams represent a compile time grouping mechanism.

4A:- A package is an organized group of elements. A package may contain structural things like classes, components and other packages in it.

CARE
COLLEGE OF ENGINEERING
TRICHY – 620009

INTERNAL ASSESSMENT TEST

Reg. No : 8 1 0 7 1 9 1 0 4 0 0 5

College Code Name	8107 - CARE College of Engineering		
Student Name	Anthy . N		
Degree / Branch	B.E - Computer Science and Engg	Semester	05
Subject Code	CS8592	Date & Session	08.11.21/AN
Subject Title	Object Oriented analysis and design	No. of Pages used	10

S. Shanthi
Chief Superintendent's Signature / Facsimile

All Particulars given are verified
F. Shakila
F. SHAKILA BANU
Name of the Hall Superintendent

Do not write the Register Number, Roll Number, College Code and the Name in any other part of the Answer Book
Put a tick mark (✓)in the applicable Test

UT - I		CT - I		UT - II		CT - II	✓

Instruction to the Candidate. Put (✓) for the questions attended in the tick mark column against each question

						i					ii					iii				Total Marks	Grand Total 12 26				
Q	✓	CO	BT	Marks	Q		✓	CO	BT	Marks	✓	CO	BT	Marks	✓	CO	BT	Marks			CO 1	CO 2	CO 3	CO 4	CO 5
1	✓	4	K2	2	a		✓	3	K3	6	✓	3	K1	6					12						
2	✓	4	K2	1	6	b															CO 6	CO 7	CO 8	CO 9	CO 10
3	✓	4	K1	2		a	✓	4	K3	11									11						
4	✓	4	K1	1	4	b																			
5	✓	4	K2	1		a																			
6					8	b	✓	4	K3	10									10	40					
7																									
Total				07														Total	33	(FOUR ZERO)					

Declaration by the Examiner: Verified that all the questions attended by the student are valued and the total is found to be correct

09.11.21 Date of Valuation	C. Puthu Kumaran Name of the Examiner	9/11/21 Signature of the Examiner

Noted	N. Anthy
Statement of student stating all Comments/ Corrections noted	Signature of the Candidate

CARE

COLLEGE OF ENGINEERING

TRICHY – 620009

Block 1

INTERNAL ASSESSMENT TEST

Reg. No : 8 1 0 7 1 9 1 0 4 0 2 0

College Code Name	8107 CARE COLLEGE OF ENGINEERING		
Student Name	K.E. SHREEHAR		
Degree / Branch	B.E CSE	Semester	V
Subject Code	CS8592	Date & Session	18.11.2021 / AN
Subject Title	OBJECT ORIENTED ANALYSIS AND DESIGN	No. of Pages used	9

S. Shanth

Chief Superintendent's Signature / Facsimile

All particulars given are verified

R. GOBALAKRISHNAN.

Name of the Hall Superintendent

Do not write the Register Number, Roll Number, College Code and the Name in any other part of the Answer Book

Put a tick mark (✓)in the applicable Test

UT - I		CT - I		UT - II		CT - II	✓

Instruction to the Candidate. Put (✓) for the questions attended in the tick mark column against each question

	i					ii					iii				Total Marks	Grand Total				
Q	✓	CO	BT	Marks	Q	✓	CO	BT	Marks	✓	CO	BT	Marks	✓	CO	BT	Marks		CO 1	CO 2	CO 3	CO 4	CO 5
1	✓	1	K2	2	a	✓	3	K3	6	✓	3	K3	5					11			12	16	
2	✓	1	K2	1	b														CO 6	CO 7	CO 8	CO 9	CO 10
3	✓	1	K1	2	a																		
4	✓	1	K1	1	b	✓	4	K2	3	✓	4	K4	3					6					
5	✓	1	K2	1	a																		
6					b	✓	4	K2	3									3					
7																							
Total				07														20					

27 (Two Seven)

Declaration by the Examiner: Verified that all the questions attended by the student are valued and the total is found to be correct

09.11.21	C. Muthukumaran	
Date of Valuation	Name of the Examiner	Signature of the Examiner

Noted	
Statement of student stating all Comments/ Corrections noted	Signature of the Candidate

CARE
COLLEGE OF ENGINEERING
TRICHY – 620009

9/11/21

INTERNAL ASSESSMENT TEST

Reg. No : 8 1 0 7 1 9 1 0 2 4 0 0 1

College Code Name	8107, CARE College of Engineering		
Student Name	Akash N		
Degree / Branch	BE - CSE	Semester	V
Subject Code	CS8592	Date & Session	3.11.21 (AN)
Subject Title	OOAD	No. of Pages used	7

S. Shanthi
Chief Superintendent's Signature / Facsimile

All Particulars given are verified
F. Shakila
F. SHAKILA BANU
Name of the Hall Superintendent

Do not write the Register Number, Roll Number, College Code and the Name in any other part of the Answer Book

Put a tick mark (✓) in the applicable Test

UT - I		CT - I		UT - II		CT - II	✓

Instruction to the Candidate. Put (✓) for the questions attended in the tick mark column against each question

Q	✓	CO	BT	Marks	Q		✓	CO	BT	Marks	✓	CO	BT	Marks	✓	CO	BT	Marks	Total Marks
							I				II				III				
1	✓	4	K2	1	6	a		3	K3	6									06
2						b	✓		K2										
3					7	a		4	K2	01									01
4						b													
5					8	a													
6	✓					b		4	K2	1									01
7	✓																		
Total				01														Total	08

Grand Total: 06 03 → 09 (ZERO NINE)

CO 1	CO 2	CO 3	CO 4	CO 5
✓		✓	✓	

CO 6	CO 7	CO 8	CO 9	CO 10

Declaration by the Examiner: Verified that all the questions attended by the student are valued and the total is found to be correct

09.11.21	C Muthukumaran	9/11/21
Date of Valuation	Name of the Examiner	Signature of the Examiner

Noted.	
Statement of student stating all Comments/ Corrections noted	Signature of the Candidate

CARE
COLLEGE OF ENGINEERING
TRICHY – 620009

MODEL EXAMINATION

Reg. No : 8 1 0 7 1 9 1 0 4 0 2 0

College Code Name	8107 CARE COLLEGE OF ENGINEERING		
Student Name	K.E. SHREEHAR		
Degree / Branch	BE – CSE	Semester	V
Subject Code	CS8592	Date & Session	25/11/2021-AN
Subject Title	Object Oriented Analysis and Design	No. of Pages used	20

Chief Superintendent's Signature/ Facsimile

All Particulars given are verified

Name of the Hall Superintendent

Do not write the Register Number, Roll Number, College Code and the Name in any other part of the Answer Book
Instruction to the Candidate. Put (✓) for the questions attended in the tick mark column against each question

Q	✓	CO	BT	Marks	Q		✓	CO	BT	Marks	✓	CO	BT	Marks	✓	CO	BT	Marks	Total Marks	Grand Total				
		I					I				ii				iii					CO 1	CO 2	CO 3	CO 4	CO 5
1	✓	1	K1	12	11	a	✓	1	K2	12									12	15	23	11	13	13
2	✓	1	K1	12		b														CO 6	CO 7	CO 8	CO 9	CO 10
3	✓	2	K2	2	12	a	✓	2	K2	5									5					
4	✓	2	K1	2		b																		
5	✓	3	K2	2	13	a	✓	3	K2	8									8					
6	✓	3	K2	12		b																		
7	✓	4	K1	2	14	a																		
8	✓	4	K2	12		b	✓	4	K2	10									10					
9	✓	5	K1	2	15	a	✓	5	K2	10									10					
10	✓	5	K1	✗		b													✗					
					16	a	✓	2	K2	14									14					
						b																		
Total				17														Total	59					

76 (SEVEN SIX)

Declaration by the Examiner: Verified that all the questions attended by the student are valued and the total is found to be correct

Date of Valuation	Name of the Examiner	Signature of the Examiner
24.11.21	C. RUTHRAPATHY	24/11/21.

Statement of student stating all Comments/ Corrections noted	Signature of the Candidate
Noted.	

CARE
COLLEGE OF ENGINEERING
TRICHY – 620009

MODEL EXAMINATION

Reg. No : 8 1 0 4 1 9 1 0 4 0 1 4

College Code Name	810T - Care College of Engineering		
Student Name	B. Madhu Preetha		
Degree / Branch	B.E - CSE	Semester	V
Subject Code	CS8592	Date & Session	23.11.2021-AF
Subject Title	Object Oriented analysis and Design	No. of Pages used	17

B. Shanthi
Chief Superintendent's Signature/ Facsimile

All Particulars given are verified
Name of the Hall Superintendent

Do not write the Register Number, Roll Number, College Code and the Name in any other part of the Answer Book
Instruction to the Candidate. Put (✓) for the questions attended in the tick mark column against each question

Q	✓	CO	BT	Marks	Q		✓	CO	BT	Marks	✓	CO	BT	Marks	✓	CO	BT	Marks	Total Marks
		I						I			II				III				
1	✓	1	K1	1½	11	a	✓	1	K2	10									10
2	✓	1	K1	0		b													
3	✓	2	K2	½	12	a	✓	2	K2	11									11
4	✓	2	K1	2		b													
5	✓	3	K2	1	13	a													
6	✓	3	K2	1½		b	✓	3	K2	2									2
7	✓	4	K1	½	14	a	✓	4	K1	4									4
8	✓	4	K2	0		b													
9	✓	5	K1	1	15	a	✓	5	K2	4									4
10	✓	5	K1	0		b													
					16	a	✓	2	K3	13									13
						b													
Total				08														Total	44

Grand Total				
CO 1	CO 2	CO 3	CO 4	CO 5
11½	8½	4½	4½	5
CO 6	CO 7	CO 8	CO 9	CO 10

52 (FIFTY TWO)

Declaration by the Examiner: Verified that all the questions attended by the student are valued and the total is found to be correct

24.11.21 Date of Valuation	C. MUTHUKUMARAN Name of the Examiner	24/11/21 Signature of the Examiner

Noted.	B. Madhu Preetha
Statement of student stating all Comments/ Corrections noted	Signature of the Candidate

CARE

COLLEGE OF ENGINEERING

TRICHY – 620009

MODEL EXAMINATION

Reg. No : 8 1 0 7 1 9 1 0 4 0 1 1

College Code Name	CARE COLLEGE OF ENGINEERING - 8107		
Student Name	GIOPINATH.G		
Degree / Branch	B.E / CSE	Semester	V
Subject Code	CS8592	Date & Session	23.11.21 (AN)
Subject Title	OBJECT ORIENTED ANALYSIS AND DESIGN	No. of Pages used	12

Chief Superintendent's Signature/ Facsimile

All Particulars given are verified

P. MANIVANNAN

Name of the Hall Superintendent

Do not write the Register Number, Roll Number, College Code and the Name in any other part of the Answer Book

Instruction to the Candidate. Put (✓) for the questions attended in the tick mark column against each question

Q	✓	CO	BT	Marks	Q		✓	CO	BT	Marks	✓	CO	BT	Marks	✓	CO	BT	Marks	Total Marks
							I				II				III				
1					11	a	✓	1	K2	6									6
2						b													
3					12	a	✓												
4						b													
5					13	a													
6						b													
7					14	a													
8						b													
9					15	a	✓												
10						b													
					16	a	✓	2	K3	10									10
						b													
Total																		Total	16

CO 1	CO 2	CO 3	CO 4	CO 5
6	10	–	–	–
CO 6	CO 7	CO 8	CO 9	CO 10

Grand Total: 16 (ONE SIX)

Declaration by the Examiner: Verified that all the questions attended by the student are valued and the total is found to be correct

Date of Valuation	Name of the Examiner	Signature of the Examiner
24.11.21	C. MUTHUKUMARAN	24/11/21.

Statement of student stating all Comments/ Corrections noted	Signature of the Candidate
NOTED	G.Gopinath

Reg Number	8	1	0	7	1	9	1	0	4			

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT OF CSE

CLASS	:	**III B.E CSE**	**MAX MARKS**	:	**100**
SEMESTER	:	**V**	**DURATION**	:	**3 Hours**
SUBJECT	:	**OBJECT ORIENTED ANALYSIS AND DESIGN**	**CODE**	:	**CS8592**
COURSE NO	:	**C503**	**DATE**	:	**14.12.2021**
ACADEMIC YEAR	:	**2021 – 22 (ODD)**	**EXAM**	:	**MODEL EXAM II**

PART – A (10 X 2 = 20 Marks)				
I	**ANSWER ALL QUESTIONS**		**BT level**	**CO**
	1.	Define UML Interaction Diagram.	K1	503.3
	2.	Define System sequence diagram.	K1	503.3
	3.	Illustrate the concepts and uses of Communication Diagram.	K2	503.3
	4.	Mention the Elements of an Activity Diagram.	K1	503.3
	5.	List out the Types of Interactions diagram.	K2	503.3
	6.	Show the SSD for Borrow book scenario.	K1	503.3
	7	Explain how Synchronous and asynchronous messages are depicted in communication diagram.	K1	503.3
	8	Differentiate Component and deployment diagram.	K2	503.3
	9	List the uses of UML Package Diagram	K1	503.3
	10	Define Package. Draw UML notation for Package.	K2	503.3

PART – B (5 X 13 = 65 Marks)							
II	**ANSWER ALL QUESTIONS**				**Marks**	**BT Level**	**CO**
	11	(a)		Explain Use case modeling with example.	6	K2	503.1
				(OR)			
		(b)		By considering the library management system, Perform the object-oriented System Development and give the use case model for the same (use include, extend and generalization).	13	K3	503.1
	12	(a)		Explain briefly about the Four Major phases of Unified Process with neat diagram.	7	K2	503.1
				(OR)			
		(b)		List the Various UML diagrams and explain the purpose of each diagram.	13	K2	503.1

	13	(a)	i	Outline aggregation and composition with an example.	7	K1	503.2
			ii	Elaborate generalization and composition with an example.	6	K2	503.2
				(OR)			
		(b)		What is Elaboration? Explain why elaboration is complex?	13	K1	503.2
	14	(a)		With an illustration, explain the class hierarchies. Also state the guidelines for defining a super class.	13	K2	503.2
				(OR)			
		(b)	i	Explain in detail about domain Model refinement.	7	K2	503.2
			ii	Explain about conceptual and description classes.	6	K2	503.2
	15	(a)		Why to use activity diagram? Outline the steps in modeling an activity diagram with an example	13	K2	503.3
				(OR)			
		(b)		Differentiate state independent and state dependent objects. How to model them using State Machine diagrams.	13	K1	503.3
III	**ANSWER ALL QUESTIONS**				**Marks**	**BT Level**	**CO**
	PART – C (1 X 15 =1 5 Marks)						
	16	(a)		Explain package diagram in detail.	15	K3	503.3
				(OR)			
		(b)		What is the purpose, how to draw and where to use UML component diagrams? Illustrate with an example.	15	K3	503.3

Blooms Levels: K1 - Remember, K2 – Understand, K3 - Apply, K4 - Analyze, K5 - Evaluate, K6 – Create

Faculty In-charge
Mr. C. Muthukumaran

HOD
Dr.J. Suresh

Principal
Dr.S. Shanthi

Reg Number	8	1	0	7	1	9	1	0	4			

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT OF CSE

CLASS	:	**III B.E CSE**	**MAX MARKS**	:	**100**
SEMESTER	:	**V**	**DURATION**	:	**3 Hours**
SUBJECT	:	**OBJECT ORIENTED ANALYSIS AND DESIGN**	**CODE**	:	**CS8592**
COURSE NO	:	**C503**	**DATE**	:	**24.12.2021**
ACADEMIC YEAR	:	**2021 – 22 (ODD)**	**EXAM**	:	**MODEL EXAM III**

PART – A (10 X 2 = 20 Marks)				
I	**ANSWER ALL QUESTIONS**		**BT level**	**CO**
	1.	When we can use patterns?	K1	503.4
	2.	Brief about creator	K1	503.4
	3.	"Coupling should be low" – Justify.	K2	503.4
	4.	What are design patterns?	K1	503.4
	5.	Write the types of controllers in design patterns.	K2	503.4
	6.	Expand GRASP and GoF.	K1	503.4
	7	Mention the steps involved in mapping design to code.	K1	503.4
	8	Define modular design.	K2	503.4
	9	Define cohesion and coupling.	K1	503.4
	10	List the behavioural patterns used during design phase of software development.	K2	503.4

PART – B (5 X 13 = 65 Marks)							
II	**ANSWER ALL QUESTIONS**				**Marks**	**BT Level**	**CO**
	11	(a)		Explain package diagram in detail.	13	K2	503.3
		(b)		What is the purpose, how to draw and where to use UML component diagrams? Illustrate with an example.	13	K1	503.3
	12	(a)		Why to use activity diagram? Outline the steps in modeling an activity diagram with an example	13	K2	503.3
		(b)		Differentiate state independent and state dependent objects. How to model them using State Machine diagrams.	13	K1	503.3
	13	(a)	i	What is test case? Write the guidelines for developing a quality assurance test case.	5	K2	503.5

			ii	Write the various test plans and guidelines for preparing test plans.	8	K2	503.5
		(b)		Explain Booch methodology in detail.	13	K2	503.5
	14	(a)		Discuss about bridge and observer design patterns.	13	K1	503.4
		(b)		Explain briefly about: Controller and factory design patterns.	13	K2	503.4
	15	(a)		Explain Rumbaugh methodology in detail.	13	K2	503.5
		(b)		Write the various testing strategies available in software testing	13	K2	503.5
				PART – C (1 X 15 = 15 Marks)			
III				**ANSWER ALL QUESTIONS**	**Marks**	**BT Level**	**CO**
	16	(a)		Analyze the steps involved for mapping design to code with an example.	15	K2	503.4
		(b)		Write short notes on low coupling and high cohesion.	15	K2	503.4

Blooms Levels: K1 - Remember, K2 – Understand, K3 - Apply, K4 - Analyze, K5 - Evaluate, K6 – Create

Faculty In-charge
Mr. C. Muthukumaran

HOD
Dr.J. Suresh

Principal
Dr.S. Shanthi

CARE
COLLEGE OF ENGINEERING
(Approved by AICTE and Affiliated to Anna University, Chennai)
27, Thayanur, Trichy – 620009

Unit, Cycle Test and Model Exam (IA) failed students Root Cause Analysis

SUBJECT INFORMATION

PROGRAMME: **Computer Science and Engineering**	DEGREE: **B.E.**
COURSE: **Object Oriented Analysis and Design**	SEMESTER: **V** CREDITS: **03**
COURSE CODE: **CS8592** REGULATION: **R 2017**	COURSE TYPE: **CORE**
COURSE AREA/DOMAIN: **Software Design**	CONTACT HOURS: **5 hours/Week.**
TOTAL NO. OF STUDENTS: **- 23**	AVERAGE NO OF FAILED STUDENTS IN ALL EXAMS: **07**

S.no	Problems raised by the students & faculty perspective	Remedies taken by the department
1	First three units were cover by on-line mode, so that the students not clearly understood the concepts.	Special classes have been conducted for the first three units.
2	Students were not understood the logical concepts since it having more diagrams.	Based on the student's feedback, practical sessions were conducted.
3	Last two units were completed so far fast, since the shortage of working days.	Additional coaching classes have been arranged and clarify the students doubts.
4	Ebooks were available in the GCR	Based on the student's feedback, hard copy of the course material were given.
5	Due to heavy rain fall, students would not able to attend classes properly.	Normal class time (9.00 AM – 4.00 PM) has been extended one hour (9.00 AM – 5.00 PM) to improve the teaching learning process.
6	Some of the students were suffered by health issues due to climate changes, hence, they were not attending the classes regularly.	Those students were identified and special classes have been conducted to enhance their subject knowledge.

Note: The above said remedies have been implemented and some additional tests were conducted. Based on the results analysis of the additional tests, it was noticed that, the pass percentage has been enhanced. The evidences were attached in the criterion 1.1.1 & 1.1.2.

Faculty Incharge **HoD**

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT : COMPUTER SCIENCE AND ENGINEERING

2020-2021 Odd Sem - Unit Test I and Cycle Test I Analysis

R2017: COURSE CODE & NAME: CS8592 - OBJECT ORIENTED ANALYSIS AND DESIGN

FACULTY NAME: C.MUTHUKUMARAN

QUESTION SECTION			UT-I :: PART A						UT-I :: PART B							Others	CT-I ::PART A							CT-I :: PART B												Others			
QUESTION NUMBER			Q1	Q2	Q3	Q4	Q5	Q6	Q7 (a) (i)	Q7 (a) (ii)	Q7 (a) (iii)	Q7 (b) (i)	Q7 (b) (ii)	Q7 (b) (iii)	Assignment/ Aptitude Test/ Seminar/ Quiz/ Mini Projects/Oral/ Viva Test		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8 (a) (i)	Q8 (a) (ii)	Q8 (a) (iii)	Q8 (b) (i)	Q8 (b) (ii)	Q8 (b) (iii)	Q9 (a) (i)	Q9 (a) (ii)	Q9 (a) (iii)	Q9 (b) (i)	Q9 (b) (ii)	Q9 (b) (iii)	Assignment/ Aptitude Test/ Seminar/ Quiz/ Mini Projects/Oral/ Viva Test		Total UT1	Total CT1	Total
ALLOTTED MARKS			2	2	2	2	2	2	13			13			25		2	2	2	2	2	2	2	12			12			12			12			20			
COURSE OUTCOME			1	1	1	1	1	1	1			1			1		1	1	1	2	2	2	2	1			1			2			2			2		50	50	100
BT LEVELS [R,U,AP,AN,E,C]			R	U	U	R	R	U	AN			U			R		R	U	U	R	R	U	R	AN			U			AP			AN			U				
S.No	Reg Number	STUDENT NAME																																						
1	810719104001	Aakash N	2	2	2	1	2	2				8			18		2	2	2	2	1	1					10						10			11		37	41	69.8
2	810719104002	Adhithya A	2	2	2	2	2	2				4			9		2	2	1	1	2	2	2				10									9		25	31	51.3
3	810719104004	Aravind R	2	1	1	2	2	2				5			17		2	2	2	2	2	2	2				10									14		32	38	63.5
4	810719104005	Arthy N	2	2	2	2	2	2				12			24		2	2	2	2	2	2	2				11						11			18		48	54	91.5
5	810719104006	Ayeesha Begum S	2	2	2	2	2	2				12			24		2	2	2	2	2	2	2	11						12						16		48	53	90.3
6	810719104007	Balamurugan S	1	1	2	0	2	1				10			24		2	2	2	2	1	1					9						8			13		41	40	70.5
7	810719104009	Chelci Jisha	2	1	1	2	2	2				11			24		2	2	1	1	2	2					10						10			15		45	45	78.8
8	810719104011	Gopinath.G	2	2	2	2	2	2				10			21		2	2	2	2	2	2	1	10									10			16		43	49	82.8
9	810719104012	Keerthana D M	2	1	2	2	2	2				10			23		2	1	1	1	1	2	1				10						10			14		44	43	75.8
10	810719104013	Madhan Prasath.R	2	1	1	1	1	2				6			23		2	1	1	2	2	1	1				9						9			13		37	41	69.8
11	810719104014	Madhu Preetha B	2	2	2	2	2	2				12			23		2	2	2	2	2	2	2	10									11			16		47	51	87.3
12	810719104015	Nandhini.S	2	2	2	2	2	2				9			24		2	2	2	1	2	2	2	10									10			15		45	48	82.5
13	810719104016	Nithinkarthick R	2	1	2	2	2	1				0			15		2		2	2			2				7									12		25	27	46.3
14	810719104017	Nithya Sri R	2	2	2	2	2	2	11						22		2	2	2	2	1	2	2	10						10						17		45	50	85.0
15	810719104018	Ram chandhar S. A	2	1	1	2	2	2				10			23		2	1	1	2	2	1	1	10									10			15		43	45	77.8
16	810719104019	Sanjai P	2	1	1	1	2	2				9			18		2	2	2								3									12		36	21	44.3
17	810719104020	Shreehar K E	2	2	2	2	2	2				12			24		2	2	2	2	2	2	2	11									10			13		48	48	84.0
18	810719104021	Steffy Roesy J A	2	1	2	2	2	2	11						22		2	2	2	2	2	2	2	11									11			18		44	54	89.5
19	810719104022	Swetha V	2	2	2	2	2	2	11						22		2	2	2	2	2		2	10									11			18		45	51	86.3
20	810719104023	Syed Jaffer Sadiq	0	0	0	0	0	0	0						3		2	1	2	0	0	0	1				5									4		3	15	20.3
21	810719104025	Vijayashree V	2	2	2	2	2	2				9			23		2	2	2	2	2	2	2	10									10			18		44	52	87.0
22	810719104026	Vindhiya M	2	2	2	2	2	2				10			20		2	2	2	2	2	2					10						10			13		42	45	77.3
23	810719104301	Ayyapan D	2	2	1	2	1	2				9			21		2	1	1	2	2	1	1				11						9			2		40	32	60.0
			CO						CO						CO		CO							CO						CO						CO				
		CO NUMBER	1	1	1	1	1	1	2	2	2	2	2	2	3		3	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5	6	6	6		6	6	6
		BT LEVELS	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R		U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP		AN	E	C

C. Muthukumaran

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HoD

QUESTION SECTION			CO1	CO2	CO3	CO4	CO5	CO6	CO7	CO8	CO9	TOTAL
BT LEVELS (R,U,AP,AN,E,C)			R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	
S.No	Reg Number	STUDENT NAME										
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
No of Students Attended			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

ATTAINMENT LEVEL	60								
CO	1	2	3	4	5	6	7	8	9
Attainment %	67	67	0	0	0	0	0	0	0

L1	[illegible] STUDENTS SCORING MORE THAN SET TARGET (CLASS AVERAGE / PERCENTAGE)
L2	[illegible] STUDENTS SCORING MORE THAN SET TARGET (CLASS AVERAGE / PERCENTAGE)
L3	[illegible] STUDENTS SCORING MORE THAN SET TARGET (CLASS AVERAGE / PERCENTAGE)

Course Outcomes	Attainment	Attainment Level
CO1	67	3
CO2	67	3
CO3	0	0.1
CO4	0	0.1
CO5	0	0.1
CO6	0	0.1
CO7	0	0.1
CO8	0	0.1
CO9	0	0.1

Faculty Incharge **HoD**

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT : COMPUTER SCIENCE AND ENGINEERING

2020-2021 Odd Sem - Unit Test II and Cycle Test II Analysis

R2017: COURSE CODE & NAME: CS8592 - OBJECT ORIENTED ANALYSIS AND DESIGN

FACULTY NAME: C.MUTHUKUMARAN

QUESTION SECTION			UT-II :: PART A						UT-II :: PART B							CT-II :: PART A					CT-II :: PART B																Total UT2	Total CT2	Total
QUESTION NUMBER			Q1	Q2	Q3	Q4	Q5	Q6	Q7 (a) (i)	Q7 (a) (ii)	Q7 (a) (iii)	Q7 (b) (i)	Q7 (b) (ii)	Q7 (b) (iii)	Assignment/ Aptitude Test/ Seminar/ Quiz/ Mini Projects	Q1	Q2	Q3	Q4	Q5	Q6(a) (i)	Q6(a) (ii)	Q6(a) (iii)	Q6(b) (i)	Q6(b) (ii)	Q6(b) (iii)	Q7(a) (i)	Q7(a) (ii)	Q7(a) (iii)	Q7(b) (i)	Q7(b) (ii)	Q7(b) (iii)	Q8 (a) (i)	Q8 (a) (ii)	Q8 (a) (iii)	Q8 (b) (i)	Q8 (b) (ii)	Q8 (b) (iii)			
ALLOTTED MARKS			2	2	2	2	2	2	13			13			25	2	2	2	2	2	7	6		5	8		13			6	7		14			14			50	50	100
COURSE OUTCOME			3	3	3	3	3	3	3			3			3	4	4	4	4	4	3	3		3	3		4			4	4		3			4					
BT LEVELS [R,U,AP,AN,E,C]			U	R	R	U	U	R	C			E			U	U	U	R	R	U	C	R		AN	C		AN			AN	AN		E			AN					
S.No	Reg Number	STUDENT NAME																																						
1	810719104001	Aakash N	2	2	2		1	1	4						21	1	0	0	0	0	6						1									1			33	9	30
2	810719104002	Adhithya A							0						0	1	0		0	0	5	4											2						0	12	18
3	810719104004	Aravind R	2	2	2	2	2	1				8			18	0	0	0	0	0	3	2					0												37	5	26
4	810719104005	Arthy N	2	2	2	2	2	2	12						24	2	1	2	1	1	6	6					11									10			48	40	84
5	810719104006	Ayeesha Begum S	2	2	2	2	2	1				11			25																								47	0	23.5
6	810719104007	Balamurugan S	2	1	1	2	1	1	9						21	0	1				5	2										4						38	12	37
7	810719104009	Chelci Jisha	2	2	2		1	1	4						21	1.5	2	0	1.5	1	5	4								4	4		8						33	31	63
8	810719104011	Gopinath.G	2	2	1	2	2					11			22			0		1	6	4																	42	11	37.5
9	810719104012	Keerthana D M	1		1		1	1	9						22	0	0	0		1	6	4																	35	11	34
10	810719104013	Madhan Prasath.R	1	1	2	1	1	1	8						24		0		0	0	4																		39	4	25.5
11	810719104014	Madhu Preetha B	2	2	2	2	2	2				11			25	2	0.5	0	0.5	1	6	5					3									11			48	29	67.5
12	810719104015	Nandhini.S	2	1	1	2	2	1				11			24																								44	0	22
13	810719104016	Nithinkarthick R							4								0																						4	0	2
14	810719104017	Nithya Sri R	2	1	2	2	1	1	10						22	2	1	2	1	1	5	5														1			41	18	47.5
15	810719104018	Ram chandhar S. A	2	2	1	2	2	2				11			22						5	5																	44	10	37
16	810719104019	Sanjai P													4		0.5	0.5																				4	1	3.5
17	810719104020	Shreehar K E	2	2	2	1	1	2				11			24	2	1	2	1	1	6	5								3	3							3	45	27	63
18	810719104021	Steffy Roesy J A	2	2	1	2	2	2	11						25	2	1.5	1.5	1	1	6	5														10			47	28	65.5
19	810719104022	Swetha V	2	2				2	9						25	2	2	2	2	1	6	4														10			40	29	63.5
20	810719104023	Syed Jaffer Sadiq	1	1	1	1	1	1				7			4	0																							17	0	8.5
21	810719104025	Vijayashree V	2	2	1	2	2	2				10			25	0	0.5	0	0	0.5	5	4																	46	10	38
22	810719104026	Vindhiya M	2	2	1	1	2	2	7						21	0		0	0	1	6	4																	38	11	35.5
23	810719104301	Ayyapan D	2	2	2	1	1	1	10						22	0.5	0.5				3	3														2			41	9	34
			CO						CO						CO						CO																CO				
		CO NUMBER	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5	6	6	6	6	6	6	7	7	7
		BT LEVELS	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP

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QUESTION SECTION			CO1	CO2	CO3	CO4	CO5	CO6	CO7	CO8	CO9
BT LEVELS (R,U,AP,AN,E,C)			R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET	R, U, AP, AN, E, C, SCORED, ALLOTTED, TARGET, TOTAL
S.No.	Reg Number	STUDENT NAME									
1	[illegible]	Aakash N	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
No of Students Attended			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

ATTAINMENT LEVEL	[illegible]								
CO	1	2	3	4	5	6	7	8	9
Attainment %	0	0	83	37	0	0	0	0	0

L1 [illegible]% STUDENTS SCORING MORE THAN SET TARGET (CLASS AVERAGE / PERCENTAGE)

L2 [illegible]% STUDENTS SCORING MORE THAN SET TARGET (CLASS AVERAGE / PERCENTAGE)

L3 [illegible]% STUDENTS SCORING MORE THAN SET TARGET (CLASS AVERAGE / PERCENTAGE)

Course Outcomes	Attainment	Attainment Level
CO1	0	-0.1
CO2	0	-0.1
CO3	83	3
CO4	37	-0.1
CO5	0	-0.1
CO6	0	-0.1
CO7	0	-0.1
CO8	0	-0.1
CO9	0	-0.1

Faculty Incharge

HoD

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT : COMPUTER SCIENCE AND ENGINEERING

2020-2021 Odd Sem - Model Exam Analysis

IC2017: COURSE CODE & NAME: CS8592 - OBJECT ORIENTED ANALYSIS AND DESIGN

FACULTY NAME: C.MUTHUKUMARAN

QUESTION SECTION			MI - PART A										MI - PART B																								MI - PART C						Total
QUESTION NUMBER			Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11 (a) (i)	Q11(a) (ii)	Q11 (a) (iii)	Q11 (b) (i)	Q11 (b) (ii)	Q11 (b) (iii)	Q12 (a) (i)	Q12(a) (ii)	Q12 (a) (iii)	Q12 (b) (i)	Q12 (b) (ii)	Q12 (b) (iii)	Q13 (a) (i)	Q13(a) (ii)	Q13 (a) (iii)	Q13 (b) (i)	Q13 (b) (ii)	Q13 (b) (iii)	Q14 (a) (i)	Q14(a) (ii)	Q14 (a) (iii)	Q14 (b) (i)	Q14 (b) (ii)	Q14 (b) (iii)	Q15 (a) (i)	Q15(a) (ii)	Q15 (a) (iii)	Q15 (b) (i)	Q15 (b) (ii)	Q15 (b) (iii)	Q16 (a) (i)	Q16(a) (ii)	Q16 (a) (iii)	Q16 (b) (i)	Q16 (b) (ii)	Q16 (b) (iii)	100
ALLOTTED MARKS			2	2	2	2	2	2	2	2	2	2	13			13			13			13			13			13			13			13			13			13			15			15			
COURSE OUTCOME			1	1	2	2	3	3	4	4	5	5	1			1			2			2			3			3			4			4			5			5			2			1			
BT LEVELS [KU,AP,AN,E,C]			R	R	U	R	U	U	R	U	R	R	U			E			U			E			U			U			E			U			U			AN			C			C			
S.No	Reg Number	STUDENT NAME																																														
1	810719104001	Aakash N	2	2	1				0		0		10						5																									14						34
2	810719104002	Adhithya A																																																0
3	810719104004	Aravind R																																																0
4	810719104005	Arthy N	2	2	1.5	2	1.5	2	1	1	0	2				12			11									10																14						69
5	810719104006	Ayeesha Begum S	0.5	0	1.5	0	0.5	1.5	0	0	1	0	11						11																				10						14						51
6	810719104007	Balamurugan S																																																0
7	810719104009	Chelci Jishu	1	2	2	2	1.5	1.5	1.5	1.5	2	1	12						8										6										9						13						64
8	810719104011	Gopinath.G											6																															10						16
9	810719104012	Keerthana D M	0.5	1.5	1	2	0	1	0	0.5	0.5	0	7						4						4														5						10						37
10	810719104013	Madhan Prasath.R	0	1	0		0	0			1.5	1.5	7																															10						21
11	810719104014	Madhu Preetha B	1.5	0	0.5	2	1	1.5	0.5	0	1	0	10						11									2			4						4						13						52
12	810719104015	Nandhini S																																																0
13	810719104016	Nithinkarthick R																																																0
14	810719104017	Nithya Sri B																																																0
15	810719104018	Ram chandhar S. A																																																0
16	810719104019	Sanjai P	0	0	0	0	0		0			0													0																			7						7
17	810719104020	Shrechar K E	1.5	1.5	2	2	2	1.5	2	1.5	2	1	12						5							8										10				10						14						76
18	810719104021	Shiffy Rocsy J A																																																0
19	810719104022	Swetha V	2	2	2	2	1	2	0.5	0.5	1	1	11						10									7			10						3						12						67
20	810719104023	Syed Jaffer Sadiq																																																0
21	810719104025	Vijayashree V	0	1	0	2	0.5	1.5	0	0	0	0	10						4									2									4				1			12						38
22	810719104026	Vindhiya M	1	1.5	0.5	2	0	0.5	0	0.5	1	1																0									6				4			12						30
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		BT LEVELS	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP	AN	E	C	R	U	AP	AN	E

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HoD

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT : COMPUTER SCIENCE AND ENGINEERING

2020-2021 Odd Sem : MODEL EXAM ANALYSIS

R2017: COURSE CODE & NAME CS8592 : OBJECT ORIENTED ANALYSIS AND DESIGN

FACULTY NAME: C.MUTHUKUMARAN

ATTAINMENT LEVEL -	60							
CO	1	2	3	4	5	6	7	8	9
Attainment %	39	39	9	13	17	0	0	0	0

L1 60% STUDENTS SCORING MORE THAN SET TARGET (CLASS AVERAGE / PERCENTAGE)

L2 70% STUDENTS SCORING MORE THAN SET TARGET (CLASS AVERAGE / PERCENTAGE)

L3 80% STUDENTS SCORING MORE THAN SET TARGET (CLASS AVERAGE / PERCENTAGE)

Course Outcomes	Attainment	Attainment Level
CO1	39	0.1
CO2	39	0.1
CO3	9	0.1
CO4	13	0.1
CO5	17	0.1
CO6	0	0.1
CO7	0	0.1
CO8	0	0.1
CO9	0	0.1

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CARE COLLEGE OF ENGINEERING, TRICHY
DEPARTMENT : COMPUTER SCIENCE AND ENGINEERING
2020-2021 Odd Sem - Course Outcome Attainment (R2017)
R2017: COURSE CODE & NAME: CS8592 - OBJECT ORIENTED ANALYSIS AND DESIGN
FACULTY NAME: C.MUTHUKUMARAN

COURSE OUTCOME	Direct					Indirect	CO Attainment = ((Internal*0.20+Univ*0.80) *0.70+Indriect * 0.30)
	IA1	IA2	MODEL	Internal	Univ		
CO 1	3	0.1	0.1	1	3	1.5	2.27
CO 2	3	0.1	0.1	1	3	2	2.42
CO 3	0.1	3	0.1	1	3	2	2.42
CO 4	0.1	0.1	0.1	0	3	3	2.58
CO 5	0.1	0.1	0.1	0	3	2	2.28

Mapping course outcome with programme outcomes:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	3			1							3	2	2
CO2	1	3	3			1							3	3	2
CO3	1	3	2			1							2	3	3
CO4	1	3	3			1							2	2	2
CO5	2	2	2										1	1	1

PO ATTAINMENT:

CO/ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1.51	1.51	2.27	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00	2.27	1.51	1.51
CO2	0.81	2.42	2.42	0.00	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	2.42	2.42	1.61
CO3	0.81	2.42	1.61	0.00	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	1.61	2.42	2.42
CO4	0.86	2.58	2.58	0.00	0.00	0.86	0.00	0.00	0.00	0.00	0.00	0.00	1.72	1.72	1.72
CO5	1.52	1.52	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.76	0.76
AVERAGE PO	1.10	2.09	2.08	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00	1.76	1.77	0.00

C. Muthukumaran

Faculty Incharge

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CARE COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

RETEST SCHEDULE

DATE	IV YEAR		III YEAR		II YEAR		II AI&DS	
01.12.2021 (MON)	OCY751	WASTE WATER TREATMENT	OCE551	AIR POLLUTION AND CONTROL ENGINEERING	MA8351	DISCRETE MATHEMATICS	MA8351	DISCRETE MATHEMATICS
02.12.2021 (TUE)	IT8075	SOFTWARE PROJECT MANAGEMENT	CS8501	MICROPROCESSOR AND MICROCONTROLLERS	EC8395	COMMUNICATION ENGINEERING	AD8301	INTRODUCTION TO OPERATING SYSTEMS
03.12.2021 (WED)	CS8083	MULTI-CORE ARCHITECTURE AND PROGRAMMING	MA8551	ALGEBRA AND NUMBER THEORY	CS8351	DIGITAL PRINCIPLES AND SYSTEM DESIGN	CS8392	OBJECT ORIENTED PROGRAMMING
04.12.2021 (THU)	CS8791	CLOUD COMPUTING	CS8591	THEORY OF COMPUTATION	CS8391	DATA STRUCTURES	AD8351	DESIGN AND ANALYSIS OF ALGORITHMS
05.12.2021 (FRI)	CS8792	CRYPTOGRAPHY AND NETWORK SECURITY	EC8691	COMPUTER NETWORKS	CS8392	OBJECT ORIENTED PROGRAMMING	AD8302	FUNDAMENTALS OF DATA SCIENCE
06.12.2021 (SAT)	MG8591	PRINCIPLES OF MANAGEMENT	CS8592	OBJECT ORIENTED ANALYSIS AND DESIGN	****	*********	****	*********

Head of the Department

CARE COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT OF CSE

Class / Semester : III CSE / V
Subject Code/ Title : CS8592 – Object Oriented Analysis and Design
Date : 06.12.2021
Marks : 60 Marks

RETEST

PART – A (4 X 2 = 8 Marks)

1. Define UML Interaction Diagram.
2. Show the SSD for Borrow book scenario.
3. Explain how Synchronous and asynchronous messages are depicted in communication diagram.
4. Differentiate Component and deployment diagram.

PART – B (4 X 13= 52 Marks)

1. Explain briefly about the Four Major phases of Unified Process with neat diagram.
2. Explain in detail about domain Model refinement.
3. Why to use activity diagram? Outline the steps in modeling an activity diagram with an example.
4. Explain package diagram in detail.

Faculty Incharge **HoD**

CARE COLLEGE OF ENGINEERING

Thayanur, Tiruchirappalli – 620009

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

TWO MARKS WITH ANSWERS

CS8592 - Object Oriented Analysis and Design

(V Semester CSE – Regulation 2017)

UNIT I - UNIFIED PROCESS AND USE CASE DIAGRAMS

PART – A

1. What is an object?
An object is a combination of data and logic; the representation of some real-world entity.

2. What is the main advantage of object-oriented development?
- High level of abstraction
- Seamless transition among different phases of software development
- Encouragement of good programming techniques.
- Promotion of reusability.

3. What is Object Oriented System development methodology?
Object oriented system development methodology is a way to develop software by building self-contained modules or objects that can be easily replaced, modified and reused.

4. Distinguish between method and message in object.

Method Message
i) Methods are similar to functions, procedures or subroutines in more traditional programming languages. Message essentially is non-specific function calls.
ii) Method is the implementation. Message is the instruction.
iii) In an object-oriented system, a method is invoked by sending an object a message. An object understands a message when it can match the message to a method that has the same name as the message.

5. What Is Analysis and Design?
Analysis emphasizes an investigation of the problem and requirements, rather than a solution. For example, if a new computerized library information system is desired, how will it be used.
Design emphasizes a conceptual solution that fulfills the requirements, rather than its implementation. For example, a description of a database schema and software objects. Ultimately, designs can be implemented.

6. What Is Object-Oriented Analysis and Design?
During object-oriented analysis, there is an emphasis on finding and describing the objects—or concepts—in the problem domain. For example, in the case of the library information system, some of the concepts include Book, Library, and Patron.

During object-oriented design, there is an emphasis on defining software objects and how they collaborate to fulfill the requirements. For example, in the library system, a Book software object may have a title attribute and a get Chapter method

7. What is UML?
Unified modeling language is a set of notations and conventions and diagrams to describe and model an application.

8. What are the primary goals in the design of UML?
• Provide users a ready – to use expressive visual modeling language so they can develop and exchange meaningful models.
• Provide extensibility and specialization mechanism to extend the core concepts.
• Be independent of particular programming language and development process.
• Provide a formal basis for understanding the modeling language.
• Encourage the growth of the OO tools market.
• Support higher – level development concepts.
• Integrate best practices and methodologies.

9. What is Inception?
Inception is the initial short step to establish a common vision and basic scope for the project. It will include analysis of perhaps 10% of the use cases, analysis of the critical non-functional requirement, creation of a business case, and preparation of the development environment.

10. Define Use case modeling?
Use case modeling is a form of requirements engineering. How to create an SRS in what we might cal the —traditionall way. Use case modeling is a different and complementary way of eliciting and documenting requirements.

11. Define Use case generalization?
Use case generalization is used when you have one or more use cases that are really specializations of a more general case.

12. What is Generalization?
Generalization is the activity of identifying commonality among concepts and defining superclass (general concept) and subclass (specialized concept) relationships.

13. When to Define New Data Type Classes?
In the NextGen POS system an itemID attribute is needed; it is probably an attribute of an Item or ProductDescription. Casually, it seems like just a number or perhaps a string. For example, itemID: Integer or itemID: String.

14. What is the UP?
A software development process describes an approach to building, deploying, and possibly maintaining software. The Unified Process has emerged as a popular iterative software development process for building object-oriented systems.

15. What are the Phases of Unified Process?

The Unified Process has 4 phases:

– Inception: Requirements capture and analysis
– Elaboration: System and class-level design
– Construction: Implementation and testing
– Transition: Deployment

UNIT II - STATIC UML DIAGRAMS

PART – A

1. Define Class Diagram.
The main static structure analysis diagram for the system, it represents the class structure of a system including the relationships between class and the inheritance structure.

2. What is an Elaboration?
It Build the core architecture, resolve the high-risk elements, define most requirements, and estimate the overall schedule and resources

3. What is a domain model?
A domain model is a visual representation of conceptual classes or real-world objects in a domain of interest. They have also been called conceptual models, domain object models, and analysis object models

4. Define Conceptual Classes?
The domain model illustrates conceptual classes or vocabulary in the domain. Informally, a conceptual class is an idea, thing, or object. More formally, a conceptual class may be considered in terms of its symbol, intension, and extension.

5. Define Description Class?
A description class contains information that describes something else. For example, a Product Description that records the price, picture, and text description of an Item.

6. What are Three Strategies to Find Conceptual Classes?
1. Reuse or modify existing models.
2. Use a category list.
3. Identify noun phrases

7. What is an association?
An association is a relationship between classes (more precisely, instances of those classes) that indicates some meaningful and interesting connection.

8. What is an Attributes?
An attribute is a logical data value of an object. It is useful to identify those attributes of conceptual classes that are needed to satisfy the information requirements of the current scenarios under development.

9. What About Attributes in Code?
The recommendation that attributes in the domain model be mainly data types does not imply that C# or Java attributes must only be of simple, primitive data types. The domain model is a conceptual perspective, not a software one. In the Design Model, attributes may be of any type.

10. What are a Derived Attributes?
The total attribute in the Sale can be calculated or derived from the information in the SalesLineItems. When we want to communicate that 1) this is a noteworthy attribute, but 2) it is derivable, we use the UML convention: a / symbol before the attribute name

11. Defining Conceptual Super classes and Subclasses?
It is valuable to identify conceptual super- and subclasses, it is useful to clearly and precisely understand generalization, super classes, and subclasses in terms of class definition and class sets.

12. Defining Conceptual Super classes and Subclasses?
It is valuable to identify conceptual super- and subclasses, it is useful to clearly and precisely understand generalization, super classes, and subclasses in terms of class definition and class sets.

13. What are Iterations?
A key practice in both the UP and most other modern methods is iterative development. In this lifecycle approach, development is organized into a series of short, fixed-length (for example, three-week) mini-projects called iterations

14. What is Iterative and Evolutionary Development?
The iterative lifecycle is based on the successive enlargement and refinement of a system through multiple iterations, with cyclic feedback and adaptation as core drivers to converge upon a suitable system. The system grows incrementally over time, iteration by iteration, and thus this approach is also known as iterative and incremental development. Because feedback and adaptation evolve the specifications and design, it is also known as iterative and evolutionary development.

15. What is UML Class Diagrams?
The UML includes class diagrams to illustrate classes, interfaces, and their associations. They are used for static object modeling.

UNIT III - DYNAMIC AND IMPLEMENTATION UML DIAGRAMS

PART – A

1. What is a system sequence diagram?

A system sequence diagram (SSD) is a fast and easily created artifact that illustrates input and output events related to the systems under discussion. They are input to operation contracts and most importantly object design.

2. What are System Sequence Diagrams?

A system sequence diagram is a picture that shows, for one particular scenario of a use case, the events that external actors generate their order, and inter-system events. All systems are treated as a black box; the emphasis of the diagram is events that cross the system boundary from actors to systems.

3. Define Activity Diagram.

A variation or special case of a state machine in which the states are activities representing the performance of operations and the transitions are triggered by the completion of the operations.

4. What is meant by implementation diagram?

Implementation Diagrams show the implementation phase of systems development such as the source code structure and the run- time implementation structure.

There are two types of implementation diagrams:

1. Component Diagrams
2. Development Diagrams.

5. Define Component Diagram?

A Component diagrams shows the organization and dependencies among a set of components. A component diagrams are used to model the static implementation view of a system. This involves modeling the physical things that reside on a mode, such as executable, libraries, tables, files and documents.

6. Define Deployment Diagram.

Deployment Diagram shows the configuration of run-time processing elements and the software components, processes, and objects that live in them.

Deployment diagrams are used to model the static deployment view of a system. A deployment diagram is a graph of modes connected by communication association.

7. How to Apply Activity Diagrams?

A UML activity diagram offers rich notation to show a sequence of activities, including parallel activities. It may be applied to any perspective or purpose, but is popular for visualizing business workflows and processes, and use cases.

8. What is interaction diagram? Mention the types of interaction diagram.

Interaction diagrams are diagrams that describe how groups of objects collaborate to get the job done interaction diagrams capture the behavior of the single use case, showing the pattern of interaction among objects.

There are two kinds of interaction models

- Sequence Diagram

• Collaboration Diagram.

9. What is Sequence Diagram?

Sequence diagram is an easy and intuitive way of describing the behaviors of a system by viewing the interaction between the system and its environment.

10. What is Collaboration Diagram?

Collaboration diagram represents a collaboration, which is a set of objects related in a particular context, and interaction, which is a set of messages exchanged among the objects with in collaboration to achieve a desired outcome.

11. Define Start chart Diagram.

Start chart diagram shows a sequence of states that an object goes through during its life in response to events. A state is represented as a round box, which may contain one or more compartments. The compartments are all optional.

12. What are UML Operations?

A UML operation is a declaration, with a name, parameters, return type, exceptions list, and possibly a set of constraints of pre-and post-conditions. But it is\'t an implementation rather, methods are implementations.

13. What is UML Method?

A UML method is the implementation of an operation; if constraints are defined, the method must satisfy them. A method may be illustrated several ways, including:

• in interaction diagrams, by the details and sequence of messages
• in class diagrams, with a UML note symbol stereotyped with «method»

14. What is UML Keyword?

A UML keyword is a textual adornment to categorize a model element. For example, the keyword to categorize that a classifier box is an interface is (shocking surprise!) «interface».

15.What are UML Properties and Property Strings?

In the UML, a property is \"a named value denoting a characteristic of an element. A property has semantic impact.\" Some properties are predefined in the UML, such as visibility a property of an operation. Others can be user-defined.

Properties of elements may be presented in many ways, but a textual approach is to use the UML property string {name1=value1, name2=value2} format, such as {abstract, visibility=public}. Some properties are shown without a value, such as {abstract}; this usually implies a boolean property, shorthand for {abstract=true}. Note that {abstract} is both an example of a constraint and a property string.

UNIT IV - DESIGN PATTERNS

PART – A

1. What is GRASP?
General Responsibility Assignment Software Patterns (or Principles), abbreviated GRASP, consists of guidelines for assigning responsibility to classes and objects in object-oriented design.

2. What is Responsibility-Driven Design?
A popular way of thinking about the design of software objects and also larger scale Components 3 are in terms of responsibilities, roles, and collaborations. This is part of a larger approach called responsibility-driven design or RDD.

3. What is Responsibilities?
The UML defines a responsibility as —a contract or obligation of a classifierl. Responsibilities are related to the obligations or behavior of an object in terms of its role.

4. What are the two responsibilities?

The responsibilities are of the following two types: doing and knowing.
Doing responsibilities of an object include:
• doing something itself, such as creating an object or doing a calculation
• initiating action in other objects
• controlling and coordinating activities in other objects
Knowing responsibilities of an object include:
• knowing about private encapsulated data
• knowing about related objects
• knowing about things it can derive or calculate

5. Define Pattern?
A pattern is a named problem/solution pair that can be applied in new context, with advice on how to apply it in novel situations and discussion of its trade-offs

6. What are the GRASP patterns?
They describe fundamental principles of object design and responsibility assignment. expressed as patterns.

7. How to Apply the GRASP Patterns?
The following sections present the first five GRASP patterns:
. Information Expert
. Creator
. High Cohesion
. Low Coupling
. Controller

8. Define Creator?
Creation of objects is one of the most common activities in an object-oriented system. Which class is responsible for creating objects is a fundamental property of the relationship between objects of particular classes?

9. What is Controller?
The Controller pattern assigns the responsibility of dealing with system events to a non-UI class that represent the overall system or a use case scenario. A Controller object is a non-user interface object responsible for receiving or handling a system event.

10. Define Low Coupling?
Low Coupling is an evaluative pattern, which dictates how to assign responsibilities to support:
- low dependency between classes;
- low impact in a class of changes in other classes;
- high reuse potential;

11. Define High Cohesion?
High Cohesion is an evaluative pattern that attempts to keep objects appropriately focused, manageable and understandable. High cohesion is generally used in support of Low Coupling. High cohesion means that the responsibilities of a given element are strongly related and highly focused. Breaking programs into classes and subsystems is an example of activities that increase the cohesive properties of a system.

12. What is Information Expert?
Information Expert is a principle used to determine where to delegate responsibilities. These responsibilities include methods, computed fields and so on. Using the principle of Information Expert, a general approach to assigning responsibilities is to look at a given responsibility, determine the information needed to fulfill it, and then determine where that information is stored. Information Expert will lead to placing the responsibility on the class with the most information required to fulfill it

13. What is singleton pattern?
The singleton pattern is a design pattern used to implement the mathematical concept of a singleton, by restricting the instantiation of a class to one object. This is useful when exactly one object is needed to coordinate actions across the system.

14. What is adapter pattern?
The adapter pattern is a design pattern that translates one interface for a class into a compatible interface. An adapter allows classes to work together that normally could not because of incompatible interfaces, by providing its interface to clients while using the original interface. The adapter is also responsible for transforming data into appropriate forms.

15. What is Facade Pattern?
A facade is an object that provides a simplified interface to a larger body of code, such as a class library. A facade can:
- make a software library easier to use, understand and test, since the facade has convenient methods for common tasks;
- make code that uses the library more readable, for the same reason;
- reduce dependencies of outside code on the inner workings of a library, since most code uses

the facade, thus allowing more flexibility in developing the system;
• Wrap a poorly-designed collection of APIs with a single well-designed API (as per task needs).

UNIT V – TESTING

PART A

1. Define object model?

It is presented by the object model and the data dictionary

2. Define dynamic model?
It is presented by the state diagrams and event flow diagrams

3. Define functional model?
It is presented by data flow and constraints.

4. What are the four phases of object modeling technique?
i. Analysis
ii. System design
iii. Object design
iv. Implementation

5. What is Booch Methodology?
It is a widely used object-oriented method that helps you design your system using the object paradigm.

6. Mention the diagrams in booch methodology?
i. Class diagrams
ii. Object
diagrams
iii. State transition diagrams
iv. Module diagrams
process diagrams vi.
Interaction diagrams

7. Define Framework
It is a way of presenting a generic solution to a problem that can be applied to all levels in a development.

8. What is Language errors?
Language errors result from incorrectly constructed code, such as an incorrectly typed keyword or some necessary punctuation omitted.

9. What is run time errors?
Run time errors occur and are detected as the program is running, when a statement attempts an operation that is impossible to carry out.

10. what are the types of quality assurance testing?
i. Error based testing
ii. Scenario based testing

11. what are the various testing strategies?
i. Black box testing
ii. White box testing
iii. Top-down testing
iv. Bottom-up
Testing

12. What is test plan?
Test plan is developed to detect and identify potential problems before delivering the software to its users.

13. What are the steps needed to create a test plan?
i.Objectives of the test ii.
Development of a test case
iii. Test analysis

14. What is Beta testing?
It is a popular, inexpensive, and effective way to test software on a select group of the actual users of the system.

15. What is alpha testing?
In alpha testing, it is done by inhouse testers, such as programmers, software engineers, and internal users.

CARE COLLEGE OF ENGINEERING
(Approved by AICTE and Affiliated to Anna University, Chennai)
27, Thayanur, Trichy – 620009

Special Coaching/Remedial Class Schedule

Subject Name : **CS8592 – Object Oriented Analysis and Design** **Department** : **III CSE**

Faculty Incharge : **C.Muthukumaran** **Semester** : **V**

S.No.	Register No.	Student Name	06.12.2021	07.12.2021	08.12.2021	09.12.2021
1	810719104002	Adhithya A	Finding conceptual classes and description classes	Domain model refinement	System sequence diagram – Collaboration diagram	Component and Deployment Diagrams
2	810719104004	Aravind R				
3	810719104007	Balamurugan S				
4	810719104013	Madhan Prasath R				
5	810719104016	Nithinkarthick R				
6	810719104019	Sanjai P				
7	810719104023	Syed Jaffer Sadiq				

Faculty Incharge

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