

Accredited by NAAC with 'B+' Grade, 2(f) & 12B Status Institution by UGC

IG Valley, Madurai Main Road, Manikandam, Tiruchirappalli - 620012

# **NAAC DOCUMENTS**

**QUALITY INDICATOR FRAME WORK** 

**CRITERION – 1** 

# **CURRICULAR ASPECTS**

SUBMITTED BY

**IQAC** 

INTERNAL QUALITY ASSURANCE CELL INDRA GANESAN COLLEGE OF ENGINEERING





Citicità i	Criteria 1	Curricular Aspects	100
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#### 1.1 Curricular Planning and Implementation (20)

1.1.1 The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

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IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu – 620 012, India (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

# DEPARTMENT OF INFORMATION TECHNOLOGHY

# PREFACE OF THE COURSE FILE

Batch

: 2020-2024

Academic Year

: 2022-2023 / EVEN

Program

: INFORMATION TECHNOLOGHY

Year & Semester

: 3rd Year / VIth Semester

Course Code

: CS8592

Name of the Course

: Object Oriented Analysis and Design

Faculty in-charge

: Mrs. S. SURYA, AP/IT

Signature of the Faculty in-charge

Luif HoD/IT

Dr. G. Balakrishnan, M.E., Ph.D.,

Principal



Indra Ganesan College of Engineering
Madurai Meia Road (NH-45B), Manikandam, Tiruchirappatii-620612
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#### Department of INFORMATION TECHNOLOGHY

		7	TECHNOLOGHY			
		Work Load	Allocation - Even Semester 2022-2023			
S.NO.	Staff Name	Course	Course Name	Semeste	er Lecture /	Tot
1	Parabaccioner y rough ( MANA)	CS3491	Artificial Intelligence and Machine earning	IV	4	
-	Dr. B. Kanisha	IT8601	Big Data Analytics	VI	4	14
i	CONSTRUCTION OF THE PROPERTY O	IT8611	Project Work	VIII	6	• •
		CS3451	Introduction to Operating Systems	, IV	4	*
2	Mrs. S. Surya	CS8592	Object Oriented Analysis and Design	VI	4	
	,.	CS8091	Computational Intelligence	VI	4	16
è		CS8582	Object Oriented Analysis and Design Laboratory	VI	4	
		IT3401	Web Essentials	IV	4	
Dr. K. Uthra Devi		IT8602	Mobile Communication	VI	4	
	Dr. K. Uthra Devi	CS8092	Computer Graphics and Mutimedia	VI	4	
	CS8662	Mobile Application Development Laboratory	IV	4	20	
		IT8611	Mini Project	VI	4	
		CS3492	Database Management Systems	IV	4	
Mr. A. Vivek Ignat		IT8076 S	Software Testing	VI	4	
	Mr. A. Vivek Ignatius		Programming in C	П	4	20
		CS3481 L	Database Management Systems aboratory	IV	4	20
	** TAMPOTA AND TO SEE THE TA	IT8611 1	Mini Project	VI	4	
			heory of Computation	IV	4	
	Dr. V. Nancy	CS3461 O	perating Systems Laboratory	IV	4	12
		CS3271 C	Programming Laboratory	II	4	

**PRINCIPAL** 

Dr. G. Balakrishnan, M.E., Ph.D.,

Principal



Indra Ganesan College of Engineering Madural Malu Road (NE-48B), Manifandan, Tingineering Opportung of Alexandra (NE-48B), Manifandan, Tingineering Make Accretic New Dall, Accretic in Acad Withmatty, Communication of Colors

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	COURSE NAME	ERP III	CHRISTIC / LIMBRIC	ing.
IT 8601	Computational Intelligence			STAPT IN-CHARGE
	Object Oriented Analysis And Design	the beautiful to	3/4	Dr. HOD/IT
	Mobile Communication	N. Valences	3/4	Mrs. S. Surya AP/IT
_	Big Data Analytics	verseries se	3/4	Dr. K. Uthra Devi, ASP/IT
	Computer Graphics And Multimedia	All departs	3/5	Dr. B. Kanisha, Prof./IT
	Object Oriented Analysis And Design Laborator	And Release	3/4	Dr. K. Uthra Devi ASP/IT
~	Mobile Application Development I should		4/4	Mrs. S. Surya, AP/IT
	Mini Project	*PPM/BManna ip	4/4	Dr. K. Uthra Devi, ASP/IT
			2/2	Mr. A. Vivek Ignatius, AP/IT
) Mark	Professional Communication	* Productions again	2/2	Angertalis annualisation annualisations



Dr. G. Balakrishnan, M.E., Ph.

Indra Ganesan College of Engineeri Manikandam, Trichy-620 012.-IG Valley, Madurai Main Road Principal

Time Table Incharge

IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu - 620 012, India (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

## DEPARTMENT OF INFORMATION TECHNOLOGHY

#### CS8592

#### OBJECT ORIENTED ANALYSIS AND DESIGN

3003

#### **OBJECTIVES:**

- To understand the fundamentals of object modeling
- To understand and differentiate Unified Process from other approaches.
- To design with static UML diagrams.
- To design with the UML dynamic and implementation diagrams.
- To improve the software design with design patterns.
- To test the software against its requirements specification

UNIT I UNIFIED PROCESS AND USE CASE DIAGRAMS

Introduction to OOAD with OO Basics - Unified Process - UML diagrams - Use Case -Case study -the Next Gen POS system, Inception -Use case Modelling - Relating Use cases - include, extend and generalization - When to use Use-cases

#### UNIT II STATIC UML DIAGRAM

Class Diagram- Elaboration - Domain Model - Finding conceptual classes and description classes -Associations - Attributes - Domain model refinement - Finding conceptual class Hierarchies -Aggregation and Composition - Relationship between sequence diagrams and use cases - When to use Class Diagrams

#### UNIT III DYNAMIC AND IMPLEMENTATION UML DIAGRAMS

Dynamic Diagrams - UML interaction diagrams - System sequence diagram - Collaboration diagram -When to use Communication Diagrams - State machine diagram and Modelling -When to use State Diagrams - Activity diagram - When to use activity diagrams

Implementation Diagrams - UML package diagram - When to use package diagrams - Component and Deployment Diagrams - When to use Component and Deployment diagrams

#### UNIT IV DESIGN PATTERNS

GRASP: Designing objects with responsibilities - Creator - Information expert - Low Coupling - High Cohesion - Controller

Design Patterns - creational - factory method - structural - Bridge - Adapter - behavioural -Strategy - observer -Applying GoF design patterns - Mapping design to code

#### UNIT V TESTING

Object Oriented Methodologies - Software Quality Assurance - Impact of object orientation on Testing -**Develop Test Cases and Test Plans** 

**TOTAL: 45 PERIODS** 

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#### **OUTCOMES:**

#### At the end of the course, the students will be able to:

- Express software design with UML diagrams
- · Design software applications using OO concepts.
- · Identify various scenarios based on software requirements
- Transform UML based software design into pattern based design using design patterns
- the various testing methodologies for OO software

#### **TEXT BOOKS:**

- 1. Craig Larman, Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and Iterative Development, Third Edition, Pearson Education, 2005.
- 2. Ali Bahrami Object Oriented Systems Development McGraw Hill International Edition 1999

#### REFERENCES:

- 1. Erich Gamma, a n d Richard Helm, Ralph Johnson, John Vlissides, Design patterns: Elements of Reusable Object-Oriented Softwarell, Addison-Wesley, 1995.
- 2. Martin Fowler, Tuml Distilled: A Brief Guide to the Standard Object Modeling Language ||, Third edition, Addison Wesley, 2003.

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#### DEPARTMENT OF INFORMATION TECHNOLOGHY

Ref: SBECW/ IT / Course committee meeting / EM-I/ 2022-23 (Even)

DATE: 12.05.2023

#### COURSE COMMITTEE MEETING-CS8592-OBJECT ORIENTED ANALYSIS AND DESIGN

ACADEMIC YEAR: 2022-2023 (EVEN) SEM: 06

**REGULATION: 2017** 

PROGRAM: IT

**DATE OF MEETING: 12.05.23 TIME: 10.00AM** 

Venue: IT Dept. HoD Cabin

#### Members Present

Table.1 Course committee members

S.No.	Name of the faculty & Designation, Program	Sem/Sec/Program	Signature
1.	Dr.B. Kanisha, HoD /IT - Course coordinator	VI SEM/IT	MANAGE WAS
2.	Mrs. S. Surya., AP/IT	VI SEM//IT	orania del constitución de la co

HOD welcomed all the members present

- 1. Content of syllabus, unit wise discussed. Nature of qualitative, quantitative, problematic, theoretical concepts etc. have been discussed
- 2. With reference to the R-2017 regulation, Number of periods per unit = 09, total number of periods = 45 periods. 10 periods allotted for tutorials.
- 3. Vision and mission of the college, department discussed. POs, PEOs, PSOs discussed.
- 4. Course outcomes defined for each units, considering learning outcomes.

Table.2 Course Outcomes CO Course Outcomes **PSOs** C302.1 To understand the basics of software designs with UML 1,2,3,4,5,6,7,8,9,10,11,12 1,2 To develop software models techniques and design software C302.2 1,2,3,4,5,6,7,8,9,10,11,12 1,2 applications using OO concepts. C302.3 To identify various scenarios based on software requirements. 1,2,3,4,5,6,7,8,9,10,11,12 1,2 C302.4 To transform UML based software design into pattern based 1,2,3,4,5,6,7,8,9,10,11,12 1.2 design using design patterns. C302.5 To understand the various testing methodologies for OO 1,2,3,4,5,6,7,8,9,10,11,12 1.2 software.

5. Mapping of COs with POs and PSOs is done with suitable correlation levels(1 for low, 2 for medium, 3 for high,"-" for no correlation, before content beyond syllabus)

Course	POI	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	POII	PO12	PSO1	PSO2
C302.1	3	2	3		2	2	2			3	-	2	2	2
C302.2	3		3	2	•	2	2	_ 3	2	4		2	2	2
C302.3	3		3		-	2	2	w ,		*	2	2	2	2
C302.4	3	2	3	2	2	2	-	-	2	-		2	2	2
C302.5	- 1	*	-	-	-	2	2	-	-	3	2	2	2	2

6. Identification of content beyond syllabus- curricular gaps are identified considering industry needs, employers feedback, alumni feedback, government policy on industrialization, new investments by private/ public sectors, societal needs and level of correlation of COs with POs and PSOs. Accordingly the details of CBS added and its correlation is given below.

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Table.4 Identification of content beyond syllabus

The second secon	DC	No.	
Content beyond syllabus added	POs strengthened/Vacant filled	CO/Unit	N.
Testing tool	PO9 Vaccant Filled	C302.3 & C302.5/III & V	

7. Mapping of COs with POs, PSOs- after CBS.

			]	Table.5	Mary	ing of	COs,	C, PS	Os wit	h POs-	after C	BS.			
Course	PO1	PO2	РО3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
C302.1	3	2	3		2	2	2			. 3	-	2	2	2	100
C302.2	3	-	3	2	-	2	2	-	2		-	2	2	2	******
C302.3	3	-	3	-	-	2	2	-	2	*	2	2	2	2	******
C302.4	3	2	3	2	2	2	-		2	-	-	2	2	2	
C302 5	E			"		2	3	Miles	2	2	2	2	7	2	

- 8. Content beyond syllabus is thus identified based on the above. Plan for handling of CBS by internal/external resource person/ industrial visits are decided. This will be included in the class log book.
- 9. Lecture schedule should be prepared unit wise, as in the syllabus. Number of periods per unit and total number of periods planned should not be less than, periods allotted in the syllabus of Anna University.
- 10. Plan for additional Periods for IA tests, CBS, NPTEL delivery, Seminar, Quiz etc are to be incorporated in the lecture schedule. These periods are added exclusive of number of periods prescribed in the syllabus.
- 11. Plan for at least three assignments (with level of correlation), seminar topic, quiz questions discussed.
- 12. Separate tutorial sheets should be prepared and supplied to all students. Minimum two periods per unit to be planned, totally 10 tutorial periods. Minimum 2 tutorial questions should be set per unit, totally 10 tutorial questions.
- 13. Bright students and slow learners are to be identified, immediately after IA test I. such students may be counselled suitably and the evidence for counselling to be recorded in the attendance cum assessment record. (Sign of students with date and time of counselling, to be strictly recorded and to be attached in the course file). Such counselling may be conducted after college hours.
- 14. For those students secured less than 60% in the IA Test, Makeup test should be conducted. Correspondingly root cause analysis for reasons of failure, corrective and preventive action, and follow up action taken should be filed properly.
- 15. Contents of course file to be reviewed periodically.
- 16. Lecture schedule, assignment questions, tutorial questions, course materials, AU questions (at least 5) should be supplied within one week after the commencement of classes.
- 17. Course material should be uploaded in the college website for student's reference.
- 18. Discrepancy in question paper, if any to be informed to the controller of examinations through web portal entry, after getting approval from the HoD & the Principal. Critically asked questions, if any to be discussed with the students of the next batch.
- 19. Immediately after the publication of the results, analysis are to be carried out and follow up action to be taken for the failures.
- 20. IA test question papers should be set as per the norms of the college, incorporating marks for learning outcomes and course outcomes. Common question papers should be set.
- 21. Certificate courses/Workshop/guest lectures may be planned inviting experts from industry/higher learning institutions.
- 22. After IA test, an objective type tests may be conducted (3 times in a semester-30 minutes duration-maximum 10 questions). Questions asked in GATE, TANCET, IES or any other Competitive examination can be taken as a reference. This is to facilitate the bright students to prepare for higher level of thinking and to enhance placement and higher studies opportunities.
- 23. IA test papers, assignment papers or any other papers submitted by the students, should be returned to the students within 5 days after correction. Sample paper should be suitably filed.
- 24. Long absentees of students if any to be informed to the parents through class coordinator, if such students attendance less than 75%.

Course coordinator

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# DEPARTMENT OF INFORMATION TECHNOLOGHY

# Faculty Time Table

March 194794 Miles Colonial Colonia Col	The Art Production of Congress	omphejo	Mrs	. S. Surva Al	<u> </u>			
Day Order	1	2	3	4	5	6	7	8
1		OOAD			* of **********************************		A Admir - Admi	w-1111
II	OOAD			OOAD	kara-daki kalishir dayang salama da salama salama salama garapa salama ga		•	
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IV	1	OOAD		1	OOAD	-		18700
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5.6.1					***	FEMFASA.	· college control to report	
S.Code	-	Title	deanan	i i	Year / Bra	nch	Hours	S
CS8592	Object Ori	ented Analysis	and Desi	gn	III / IT	· waste	5	
			Т	OTAL - 5 hor	ırs			

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#### DEPARTMENT OF INFORMATION TECHNOLOGHY

#### Lecture Schedule

Degree/Program: B.TECH / IT

Duration: 2017

Course code &Name: CS8592 & OOAD Semester: VI Faculty: Mrs. S. Surva

#### AIM:

To expose the students to principle of operation and performance of electrical machines **OBJECTIVES:** 

To impart knowledge on

(i) To introduce techniques of magnetic-circuit analysis and introduce magnetic materials.

(ii) To familiarize the constructional details, the principle of operation, prediction of performance, the methods of testing the transformers and three phase transformer connections.

(iii) To study the working principles of electrical machines using the concepts of electromechanical energy conversion principles and derive expressions for generated voltage and torque developed in all Electrical Machines.

(iv) To study the working principles of DC machines as Generator types, determination of their no-load/load characteristics, starting and methods of speed control of motors.

(v) To estimate the various losses taking place in D.C. Motor and to study the different testing methods to arrive at their performance.

PREREOUISITES: Circuit theory, Electromagnetic theory.

#### **COURSE OUTCOMES:**

After the course, the student should be able to:

CO	Course Outcomes	POs	PSOs
C302.1	To understand the basics of software designs with UML diagrams.	1,2,3,4,5,6,7,8,9,10,11,12	1,2
C302.2	To develop software models techniques and design software applications using OO concepts.	1,2,3,4,5,6,7,8,9,10,11,12	1,2
C302.3	To identify various scenarios based on software requirements.	1,2,3,4,5,6,7,8,9,10,11,12	1,2
C302.4	To transform UML based software design into pattern based design using design patterns.	1,2,3,4,5,6,7,8,9,10,11,12	1,2
C302.5	To understand the various testing methodologies for OO software.	1,2,3,4,5,6,7,8,9,10,11,12	1,2

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Principal

S.No	Date	Topics to be Covered	Book
UNIT	-I UNIF	TIED PROCESS AND USE CASE DIAGRAMS -	Target periods :09
1	6.2.23	Introduction to OOAD with OO Basics	T1/BB
2	7.2.23	Unified Process	R2/BB
3	7.2.23	UML diagrams	T1/BB
4	8.2.23	Use Case	T3/BB
5	9.2.23	Case study	R3/BB
6	10.2.23	The Next Gen POS system, Inception	T2/BB
7	15.2.23	Use case Modelling	T1/BB
8	16.2.23	Relating Use cases	T1/BB
9	17.2.23	Include, extend and generalization	T1/BB
10	21.2.23	Tutorial	
11	21.2.23	Tutorial	and address a personal or another or and an or another or
UNIT		TIC UML DIAGRAMS	Target periods :09
12	28.2.23	Class Diagram	T1/BB
13	01.3.23	Elaboration	R2, T1/BB
14	3.3.23	Domain Model	R2, T1/BB
15	16.3.23	Finding conceptual classes and description classes	T1/BB
16	20.3.23	Associations	R3/BB
17	21.3.23	Attributes	T1/BB
18	24.3.23	Domain model refinement	T1/BB
19	27.3.23	Finding conceptual class Hierarchies	R1/BB
20	27.3.23	Aggregation and Composition	T1/BB
21	28.3.23	Tutorial	
22	28.3.23	Tutorial	
UNIT	III -DYN	AMIC AND IMPLEMENTATION UML DIAGRAMS	Target Periods:09
23	30.3.23	UML interaction diagrams	TI/BB
24	31.3.23	System sequence diagram	T1/BB T1/BB
25	3.4.23	When to use Communication Diagrams	R1/BB
26	5.4.23	State machine diagram and Modelling	T2/BB
27	6.4.23	When to use State Diagrams	R1/BB
28	10.4.23	Activity diagram	T3/BB
39	12.4.23	When to use activity diagrams	T3/BB
30	24.4.23	Collaboration diagram	
31	24.4.23	Tutorial	
32	26.4.23	Tutorial	
UNIT	[V - D	ESIGN PATTERNS	Target Periods: 09
33	26.4.23	GRASP: Designing objects with responsibilities	T1/BB
34	28.4.23	Creator	T1/BB
35	28.4.23	Information expert	R2/BB
36	2.5.23	Low Coupling - HighCohesion	T1/BB
37	3.5.23	Controller	T3/BB

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38	4.5.23	Design Patterns - creational	R3/BB
39	8.5.23	Factory method	R2/BB
40	10.5.23	Structural – Bridge – Adapter Behavioural –Strategy	T1/BB T1/BB
41	10.5.23	Tutorial	hype had not mere designed modify the bosonical
42	12.5.23	Tutorial	
	again and the second	ESTING	Target Periods:09
43	12.5.23	Object Oriented Methodologies	T1/BB
44	15.5.23	Software Quality Assurance	T2/BB
45	15.5.23	Impact of object orientation on Testing	R1/BB
46	16.5.23	Develop Test Cases	T3/BB
47	16.5.23	Test Plans	R3/BB
48	17.5.23	Object Oriented Methodologies	T1/BB
49	17.5.23	Software Quality Assurance	R2/BB
50	18.5.23	Impact of object orientation on Testing	RI/BB
51	18.5.23	Develop Test Cases	
52	3	Tutorial	
53	De . I dat ou	Tutorial	The state of the s
	fethiornative humanine are a	Content Beyond the Syllabus	and the same and an analysis of the same and an analysis o
54		Testing tools	Material

## Book Reference - Text Books

SI.	Title of the Book	Author	Publisher	Year
1=	An Introduction to Object-Oriented Analysis andDesign	Craig Larman	Pearson Education Third Edition,	2005.
2.	Object Oriented Systems Development	. Ali Bahrami	McGraw Hill International Edition	1999

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#### Book Reference - References

SI	Title of the Book	Author	Publisher	Year
1.	Design patterns: Elements of Reusable Object	Erich Gamma, Ralph Johnson, John Vlisside n d Richard Helm	Addison-Wesley	1995

#### Website Refere ce:

https://towardsdatascience.com/top-13-resources to learn ooad/

https://www.bestcolleges.com/bootca mps/guides/learn-object oriented analysis and design-free/

Signature of the Faculty in-charge

HoD/IT

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# DEPARTMENT OF INFORMATION TECHNOLOGHY

# Identification of Curricular Gap & Content Beyond Syllabus(CBS)

Name of the Faculty: Mrs. S. Surya

Course Code & Name: CS8592 & OOAD

Technology Degree & Program: B.TECH/IT

Semester: VI Year: 2022 -2023 /EVEN

#### I.Mapping of Course Outcomes with POs & PSOs.( before CBS)

Table 1 Mapping of COs. C. PSOs with POs. before CBS

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C302.1	3	2	3	_	2	2	2	-		3	w. m marray	2	2	2
C302.2	3	***	3	2	-	2	2	***	2	Management of the contract of		2	2	2
C302.3	3	-	3	- :	_	2	2	-	-	-	2	2	2	2
C302.4	3	2	3	2	2	2	- 1	****	2	-	_	2	2	2
C302.5	-	-	-	-	SMR .	2	2	-	-	3	2	2	2	2
C302	3	2	3		2	2	· ·	-	3	3	2	2	2	- 5

#### II. Identification of content beyond syllabus.

Table.2 Identification of content beyond syllabus

Details of Content Beyond Syllabus(CBS) added	POs strengthened/ vacant filled	CO/Unit
Testing Tools	PO9(Vacant	C302.3 & C302.5 /
Management .	filled	III & V

#### III. Mapping of Course Outcomes with POs & PSOs. (After CBS)

Table.3 Mapping of COs. C. PSOs with POs- after CRS

Carres	DO	DOG	DO3	DO4	DOC	201	D 0 #	7				er CD3		per a Sul
Course	1	POZ	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C302.1	3	2	3	-	2	2	2	***	-	3		2	2	2
C302.2	3	-	3	2	***	2	2	-	2	-		2	2	2
C302.3	3	-	3	Ann .	-	2	2	-	*2	**	2	2	2	2
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Signature of the Faculty

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HoD/III

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# DEPARTMENT OF INFORMATION TECHNOLOGHY

# Proof and identification of Content Beyond Syllabus(CBS)

Name of the Faculty: Mrs. S. Surya Degree & Program: B.TECH & IT

Course Code & Name: CS8592 & OOAD Semester: VI Academic Year: 2022 -2023 /EVEN

**TOPIC: TESTING TOOLS** 

#### WinRunner:

- It's a Functionality Testing Tool.
- It's a Mercury Interactive's Testing tool.
- Supports VB, VC++, Java, Power Builder, Delphi, D2K, HTML, Siebel.
- It Records GUI operations in Record mode.
- While Recording, it Automatically generates a Test Script Language(TSL).
- It can do functional Testing of a variety of application software written in programming languages such as PowerBuilder, VB, C/C++, JAVA and also on ERP/CRM software packages.
- Run on Windows family Operating Systems.
- XRunner works on Unix and Linux Platforms.
- It Perform Testing in all Windows OS, Browser Environments such as Internet Explorer.
- It can add checkpoints to compare actual and expected results.
- It provides a facility for synchronization of Test Cases.
- An automated program to apply a test on Application build is called a Test Script.
- It supports Auto-learning to Recognize Objects and Windows during recording.
- It support two types of modes of recording.
- Context Sensitive Mode
- Analog Mode
- In the 1st mode, it records Mouse & Keyboard operations w.r.t. to objects and windows.
- In the 2<sup>nd</sup> mode, it records *Mouse pointer* movements on the desktop.
- To change into analog mode follow the steps below.
- Click "Start Recording" twice.
- · Go to Create Menu and then click Record Analog
- Press F2 to change from one mode to other.
- Analog mode is used to record digital signatures, Graph drawing and Image movements.

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#### Testing Process

- Learning (Objects/Windows Recognition)
- Recording (Manual Test into an Automation)
- Edit Script (Checkpoints & Ctrl Stmts)
- Run Script (Execution of Automated Script)
- Analyze Test Results (Defect Tracking for Test Engineers)

#### Testing an Application

- After installing the software, invoke the WinRunner application
- Start → All Programs → WinRunner → WinRunner
- Give Checkmarks for all Add-Ins in the boxes and click Ok.
- Select "New test" to Create a New Test Script (or)
- "Open test" to Open an Existing Test Script (or)
- "Quick Preview" to View the Quick Preview of WinRunner

Signature of the Faculty

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#### DEPARTMENT OF INFORMATION TECHNOLOGHY

## **Assignment Ouestion Paper**

	Assignmen	t – 01	Date of Issue:	04.03.2023	Marks	10
Course code	CS8592	Course Title	Object Oriented ar	nalysis and Design		Marie Milderman
Year	111	Semester	VI	Date of Submiss	ion:   18.03.2	023

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near-months of the contract of	Explain in detail about relating Use cases, when to use use cases	C302.3
2	Explain in detail about Actor, Scenarios, use cases and 4+1 view	C302.3

#### **Mark Allocation**

Rubrics	Marks Allocated	Marks obtained
Content Quality	6	6
Presentation Quality	2	1
Timely submission	2	2
Total marks	10	9

Name and Signature of the Faculty Incharge

Н

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Indra Ganesan College of Engineering

IG Valley, Madurai Main Road Manikandam, Trichy-620 (1.2.

IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu – 620 012, India (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

## DEPARTMENT OF INFORMATION TECHNOLOGHY

# **Tutorial Question Paper**

	Tutorial -		Date of Issue:	05.03.2023	Marks	10
Course code	CS8592	Course Title	OBJECT ORIENT	TED ANALYSIS AN	D DESIGN	*******
Year	III	Semester	VI	Date of Submissi	on: 15.03.2	023

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1	Explain the benefits and concepts of use case and use case model and analyze the relating use cases in ATM system	C302.1
2	Describe the use case model for online exam	C302.1

Name and Signature of the Faculty Incharge

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Internal Assessment Test - I Even Sem Time Table (Higher Semester) - 2022-23

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Register Number:



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	Internal Assessm	ent Exam - I	Date/Session	М	arks 50	
Course cod	e CS8592	Course Title	OBJECT ORIES	NTED ANALYSIS ANI		
Regulation	2017	Duration	90 minutes	Academic Year	2022-2023	
Year	III	Semester	VI	Department	Ir	
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CO5:	Declare the vario	us testing methodologies fo	or OO cofficers	is design patterns		

Q.No.	Question	CO	BT:
-	PART A  (Answer all the Questions 10 x 2 = 20 Marks)	N APRESSOR	art and many
1	Define OOAD	CO1	K1
2	What is Unified process	COI	K2
3	What are the models that are created in OOAD.	COI	K2
4	State the 3 ways of using UML suggested by Martin Fowler	COI	K1
5	Define Unified Process.	COI	K1
6	State and explain the three perspectives of using UML.	CO1	K1
7	Analysis in OOAD.	CO1	K3
8	What is meant by use cases, scenario and actor?	CO2	K2
9	Write the block box testing?	CO2	K.5
10	What do you mean by Include? Give an example.	CO2	K2
	PART B  (Answer all the Questions 2 x 10 = 20 Marks)		1.2
lla	Real time example for object oriented system development?	COI	K6
11.	OR	ANADOSTOCIONOST	- hu u
lb 2a	Real time example for dynamic and multiple inheritance?	COI	K6
124	Explain in detail about Actor, Scenarios, use cases and 4+1 view	CO2	K2
2b	Explain about Unified Process.		77.0
	PART C (Answer all the Questions 1 x 10 = 10 Marks)	CO2	K2
3a	Explain the benefits and concepts of use case and use case model and analyze the relating use cases in ATM system	CO1	K4
	OR		L.,
3b	Describe the use case model for online exam	CO1	K2

Course Faculty
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Dr. G. Balakrishnan, M.E., Ph.D.,

Principal







Internal Assessment Test - I Retest Even Sem Time Table (Higher Semester) - 2022-23

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# Indra Ganesan College of Engineering Manikandam, Trichy- 620012

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# Dr. G. Balakrishnan, M.E., Ph.D.,

CO1 K2

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Part - C (1×10=10)

13 a rescribe the use case model for online exam

13 b Explain the benefits and concepts of use case and use case model CO1 K2

(OR)

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#### Internal Assessment Test Answer Book

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Batch No.	2022-23	Date/Session	7-3-23	-3.23 FN Department				7	T
Course code CS8592 Course Title			ODAD						1. 2
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(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu -- 620 012, India

# DEPARTMENT OF INFORMATION TECHNOLOGHY

# ROOT CAUSE ANALYSIS

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Dr. G. Balakrishnan, M.E., Ph.D.

Principal Indra Ganesan College of Engineer প্ৰ IG Valley, Madurai Main Roac Manikandam, Trichy-620 012