



SASURIE COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi. Affiliated to Anna University, Chennai

Near NH544, Coimbatore Bypass, Near Vijayamangalam Tollgate, Tirupur 638056

NAAC DOCUMENTS

QUALITY INDICATOR FRAME WORK

CRITERION - 1

CURRICULAR ASPECTS

SUBMITTED BY

IQAC

INTERNAL QUALITY ASSURANCE CELL

SASURIE COLLEGE OF ENGINEERING



Criterion 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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SASURIE
COLLEGE OF ENGINEERING
Approved by AICTE, New Delhi
Affiliated to Anna University, Chennai

Department : Civil Engineering
Subject Code & Name : OML 751 & Testing of materials
Class & Batch : IV & 2020-21
Semester : VII

CONTENTS - COURSE FILE

S.NO	PARTICULARS	REMARKS
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3	Subject Information Record	
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9	Internal test mark sheet(Consolidated)	
10	Internal test question paper	
11	Model question paper	
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14	Assignment - schedule and paper	
15	Question bank	
16	Sample university question papers(min 5 QP-recent exam)	
17	Personal Log book - Updated	
18	Lecture Notes	

	Prepared By	Verified By	Approved By
Sign:			
Name:	S. A. Ramesh	R. Prabhakaran	Dr. T.S. Sivakumaran
	Faculty	HOD	Principal

Dr.M.VIJAYAKUMAR ME., Ph.D.,
PRINCIPAL



SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 056, Tirupur (Dt).



INDIVIDUAL TIME TABLE
Department of Mechanical Engineering

EMIC YEAR: 2023-2024

Semester : ODD

STUDENT NAME:

YEAR/SEM: IV / VII

HOUR	I	II	10.40 AM to 10.55 AM	III	IV	12.35 PM to 1.20 PM	V	VI	2.50 PM TO 3.05PM	VII	VIII		
DAY/TIME	9.00 AM to 9.50 AM	9.50 AM to 10.40 AM		10.55 AM to 11.45 AM	11.45 AM to 12.35 PM		1.20 PM TO 2.05 PM	2.05 PM TO 2.50 PM		3.05 PM to 3.50 PM	3.50 PM to 4.30 PM		
MONDAY			Break			Lunch			Break				
TUESDAY		TOM											TOM
WEDNESDAY	TOM												
THURSDAY					TOM								
FRIDAY					TOM								
SATURDAY										TOM			

No	Course Code	Course Name	Acronym	Name of the Staff & Dept.	Hours/Week
	OML751	Testing of Materials	TOM	Mr.S.A.Ramesh AP/Mech	6
				TOTAL	6

	Prepared by	Verified by	Authorized by
Signature:			
Name:	O.D.Naveen TIME TABLE I/C	Mr.S.A.Ramesh HOD	Dr.M.Vijayakumar PRINCIPAL

Dr.M.VIJAYAKUMAR ME., PH.D.,
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STUDENTS NAME LIST

Academic Year – 2020 -2021

ODD SEMESTER

Department : Civil

Year/Sem : IV/VII

S.No.	Register Number	NAME
1.	732417103001	BASKARAN K
2.	732417103002	GAYATHRI N
3.	732417103003	GOWTHAM P
4.	732417103004	LAVANYA M
5.	732417103005	NAVEENA S
6.	732417103006	NIVETHA S
7.	732417103007	SANGAR G
8.	732417103008	SURYA N
9.	732417103009	THARUNKUMAR J
10.	732417103010	VAISHNAVI P
11.	732417103011	VALLARASU M

	Prepared By	Verified By	Approved By
Sign:	<i>S A Ramesh</i>	<i>R. P. Prabhakaran</i>	<i>T. S. Sivakumar</i>
Name:	S. A. Ramesh	R. Prabhakaran	Dr. T. S. Sivakumar.
	Faculty	HOD'	Principal

M

Dr.M.VIJAYAKUMAR ME., Ph.D.,
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SUBJECT INFORMATION RECORD

Department : Civil Engineering

Subject : Testing of Materials

Year : IV

Semester : VII

Last year handled by : S.A. Ramegh

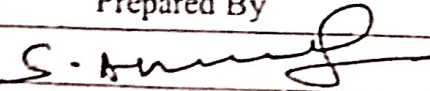
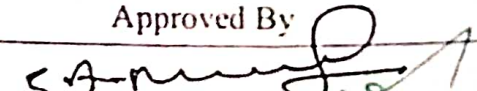
Percentage of Result (last year) : 75 %

Quality Objectives :

1. Identify the types of testing in industry
2. Specify the basics of testing & methods with analysis

Reference Book :

1. Baldev raj . T. Jayaram "practical NDT"
2. Callity BD "Elements of x-ray diffraction"

	Prepared By	Approved By
Sign:		
Name:	S.A. Ramegh	S.A. Ramegh
	Faculty	

DR. N. V. JAYAKUMAR M.E., Ph.D.
PRINCIPAL
HOD
SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 056, Tiruppur (Dt).

TESTING OF MATERIALS

L T P C
3 0 0 3

OML751

OBJECTIVE:
To understand the various destructive and non destructive testing methods of materials and its industrial applications.

UNIT I INTRODUCTION TO MATERIALS TESTING 9

Overview of materials, Classification of material testing, Purpose of testing, Selection of material, Development of testing, Testing organizations and its committee, Testing standards, Result Analysis, Advantages of testing.

UNIT II MECHANICAL TESTING 9

Introduction to mechanical testing, Hardness test (Vickers, Brinell, Rockwell), Tensile test, Impact test (Izod, Charpy) - Principles, Techniques, Methods, Advantages and Limitations, Applications. Bend test, Shear test, Creep and Fatigue test - Principles, Techniques, Methods, Advantages and Limitations, Applications.

UNIT III NON DESTRUCTIVE TESTING 9

Visual inspection, Liquid penetrant test, Magnetic particle test, Thermography test - Principles, Techniques, Advantages and Limitations, Applications. Radiographic test, Eddy current test, Ultrasonic test, Acoustic emission- Principles, Techniques, Methods, Advantages and Limitations, Applications.

UNIT IV MATERIAL CHARACTERIZATION TESTING 9

Macroscopic and Microscopic observations, Optical and Electron microscopy (SEM and TEM) - Principles, Types, Advantages and Limitations, Applications. Diffraction techniques, Spectroscopic Techniques, Electrical and Magnetic Techniques- Principles, Types, Advantages and Limitations, Applications.

UNIT V OTHER TESTING 9

Thermal Testing: Differential scanning calorimetry, Differential thermal analysis; Thermo-mechanical and Dynamic mechanical analysis: Principles, Advantages, Applications. Chemical Testing: X-Ray Fluorescence, Elemental Analysis by Inductively Coupled Plasma-Optical Emission Spectroscopy and Plasma-Mass Spectrometry.

TOTAL: 45 PERIODS

OUTCOMES:

- Identify suitable testing technique to inspect industrial component
- Ability to use the different technique and know its applications and limitations

TEXT BOOKS:

1. Baldev Raj, T.Jayakumar, M.Thavasimuthu "Practical Non-Destructive Testing", Narosa Publishing House, 2009.
2. Cullity, B. D., "Elements of X-ray diffraction", 3rd Edition, Addison-Wesley Company Inc., New York, 2000.
3. P. Field Foster, "The Mechanical Testing of Metals and Alloys" 7th Edition, Cousens Press, 2007.

REFERENCES:

1. Metals Handbook: Mechanical testing, (Volume 8) ASM Handbook Committee, 9th Edition, American Society for Metals, 1978.
2. ASM Metals Handbook, "Non-Destructive Evaluation and Quality Control", American Society of Metals, Metals Park, Ohio, USA.
3. Brandon D.G., "Modern Techniques in Metallography", Van Nostrand Inc, N.J, USA, 1986.

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CORRECTIVE ACTION REPORT

Dept: Civil Engineering Year: IV
Subject: Testing of Materials Semester: VII

S.No	Unit Test	Percentage of marks	Root Cause (Metrics)	Corrective Action	Deadline date	Remarks
1	UT-1	100%	-	-	-	
2	UT-2	100%	-	-	-	
3	UT-3	100%	-	-	-	
4	UT-4	100%	-	-	-	
5	UT-5	100%	-	-	-	
6	Model Exam I	100%	-	-	-	
7	Model Exam II	100%	-	-	-	

	Prepared By	Approved By
Sign:		
Name:	S.A. Ramesh	S.A. Ramesh
	Faculty	HOD

LESSON PLAN

Faculty Name : S. A. Ramesh
 Department : Civil
 Subject / Code : Testing of materials
 Academic Year : 2020-21

Designation : Assistant Professor
 Semester / Year : VII / IV

S.No.	Proposed		Details of Topic Covered	TA	Ref.	Actual		Remarks
	Date	Period				Date	Period	
UNIT - I INTRODUCTION TO MATERIALS TESTING								
1	12/7/20	1	overview of materials	1	3	12/7/20	1	
2	13/7/20	3	classification of material testing	1	3	13/7/20	3	
3	14/7/20	3	purpose of testing	1	3	14/7/20	3	
4	15/7/20	5	selection of materials	1	3	15/7/20	5	
5	18/7/20	2	development of testing	1	3	18/7/20	2	
6	18/7/20	8	testing organization and its work	1	3	18/7/20	8	
7	19/7/20	1	testing standards	1	3	19/7/20	1	
8	20/7/20	3	Result analysis	1	3	20/7/20	3	
9	21/7/20	3	Advantages of testing	1	3	21/7/20	3	
UNIT - II MECHANICAL TESTING								
10	25/7/20	2	Introduction to mechanical test	1	3	25/7/20	2	
11	25/7/20	8	Hardness test	1	3	25/7/20	8	
12	27/7/20	3	Tensile test	1	3	27/7/20	1	
13	28/7/20	3	Impact test (Izod, Charpy)	1	3	28/7/20	3	
14	29/7/20	5	Bond test	3	3	29/7/20	5	
15	1/8/20	8	Shear test	3	3	1/8/20	8	
16	3/8/20	3	Creep test	3	3	3/8/20	3	
17	4/8/20	3	Fatigue test	3	3	4/8/20	3	
18	8/8/20	2	overview of mechanical testing	3	3	8/8/20	2	
19	8/8/20	8	visual inspection	1	1	8/8/20	8	
20	10/8/20	3	Liquid Penetrant test	1	1	10/8/20	3	
21	11/8/20	3	Magnetic particle test	3	1	11/8/20	3	
22	15/8/20	2	Thermography test	3	1	15/8/20	2	
23	15/8/20	8	Radiographic test	3	1	15/8/20	8	
24	17/8/20	3	Eddy Current test	3	1	17/8/20	3	
25	18/8/20	3	Ultrasonic test	3	1	18/8/20	3	
26	19/8/20	6	Acoustic emission	3	1	19/8/20	5	
27	22/8/20	8	overview of NDT	3	1	22/8/20	2, 8	

Dr. M. VIJAYAKUMAR ME., Ph.D.,
 PRINCIPAL

Faculty Name : S. N. RAMESH
 Department : CIVIL OML 151
 Subject / Code : OML 151
 Academic Year : 2020-21

Designation: Assistant Professor
 Semester/ Year IV / VV

S.No	Proposed		Details of Topic Covered	TA	Ref	Actual		Remarks
	Date	Period				Date	Period	
UNIT-IV MATERIAL CHARACTERIZATION TESTING								
28	24/8/20	8	nanoscopic observation	1	1	24/8/20	3	
29	25/8/20	8	microscopic observation	1	1	25/8/20	3	
30	29/8/20	8	optical and electron micro	3	1	29/8/20	8	
31	21/8/20	3	SEM and TEM	3	1	21/8/20	3	
32	11/9/20	3	diffraction techniques	3	1	11/9/20	3	
33	5/9/20	2	spectroscopic techniques	3	1	5/9/20	2	
34	5/9/20	8	electrical techniques	3	1	5/9/20	8	
35	7/9/20	3	magnetic techniques	3	1	7/9/20	3	
36	8/9/20	3	overview of NDT	3	1	8/9/20	3	
UNIT-V OTHER TESTING								
37	12/10/20	8	Thermal testing	1	2	12/10/20	8	
38	14/10/20	3	different scanning algorithm	1	2	14/10/20	3	
39	15/10/20	3	different thermal analysis	1	2	15/10/20	3	
40	16/10/20	5	Thermomechanical	1	2	16/10/20	5	
41	10/10/20	8	chemical testing	3	2	10/10/20	8	
42	21/10/20	3	x-ray fluorescence	3	2	21/10/20	3	
43	23/10/20	3	Elemental analysis by	3	2	23/10/20	3	
44	26/10/20	8	Optical Emission Spectroscopy	3	2	26/10/20	8	
45	28/10/20	3	plasma-mass Spectrometry	3	2	28/10/20	3	

Reference books (Ref):

1. Baldev Raj, T. Jayakumar, M. Thavasimuthu "Practical Non Destructive testing", Narosa publishing house 2009
2. Cullity, B.D. Elements of X-ray diffraction, 3rd edition, addison-wesley company inc, Newyork 2000

Teaching Aids (TA):

1. Black Board with Chalk
2. Overhead Projector
3. LCD Projector
4. Others (Field visits, Charts, Cutset Models)

	Prepared by	Verified by	Authorized by
Sign	S. N. Ramesh	N. V. Velligiri	T. S. Sivakumaran
Name	S. N. Ramesh	N. V. Velligiri	Dr. T. S. Sivakumaran
	Faculty	HOD	PRINCIPAL



TEST PLAN FOR SUBJECT

Subject : Testing of Materials

Faculty: S. A. Ramesh

Semester : VII

Year: IV

Department : Civil Engineering

S. No.	Description	Planned Date/Month	Actual Conducted Date / Month	Remarks
1.	Unit test - I	4. 8. 20	4. 8. 20	
2.	Unit test - II	2. 8. 20	2. 8. 20	
3.	Unit test - III	26. 9. 20	26. 8. 20	
4.	Unit test - IV	6. 10. 20	6. 10. 20	
5.	Unit test - V	13. 10. 20	13. 10. 20	
6.	Model test - I	28. 10. 20	28. 10. 20	
7.	model exam - II	7. 11. 20	7. 11. 20	

	Prepared By	Approved By
Sign:		
Name:	S.A. Ramesh	R. Prabhakaran
	Faculty	HOD

Dr.M.VIJAYAKUMAR ME., Ph.D.,
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Vijayamangalam - 633 056, Tirupur (Dt).



RESULT ANALYSIS OF TEST

Subject : Testing of Materials. Date : 6.8.20
Class : IV Department: Civil
Semester : III
Exam details & date : Unit Test
Faculty : S.A. Ramesh
Number of students : 11
No. of students attended : 11
No. of students absent : —
No. of students passed : 11
No. of students failed : —
Percentage of failures : 0%

RESULT DATA:

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	—	—	11	—	—

	Prepared By	Approved By
Sign:	<u>S.A. Ramesh</u>	<u>R. Prabhakaran</u>
Name:	<u>S.A. Ramesh</u>	<u>R. Prabhakaran</u>
	Faculty	HOD <u>[Signature]</u>

Dr.M.VIJAYAKUMAR M.E., Ph.D.
PRINCIPAL



RESULT ANALYSIS OF TEST

Subject : Testing of Materials. Date : 1.9.20
Class : IV Department: Civil
Semester : VII
Exam details & date : Unit Test - II 29.8.23
Faculty : S.A. Ramesh.
Number of students : 11
No. of students attended : 11
No. of students absent : —
No. of students passed : 11
No. of students failed : —
Percentage of failures : 0%

RESULT DATA:

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	—	—	11	—	—

	Prepared By	Approved By
Sign:		
Name:	S.A. Ramesh	R. Prabhakaran
	Faculty	HOD

RESULT ANALYSIS OF TEST

Subject : Testing of Materials. Date : 28.9.20

Class : IV Department: Civil

Semester : VII

Exam details & date : Unit Test - III 29.9.20

Faculty : S.A. Ramesh.

Number of students : 11

No. of students attended : 11

No. of students absent : —

No. of students passed : 11

No. of students failed : —

Percentage of failures : 0%

RESULT DATA:

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	—	—	11	—	—

	Prepared By	Approved By
Sign:	<u>S.A. Ramesh</u>	<u>R. Prabhakaran</u>
Name:	<u>S.A. Ramesh</u>	<u>R. Prabhakaran</u>
	Faculty	HOD

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RESULT ANALYSIS OF TEST

Subject : Testing of Materials. Date : 8.10.20
Class : IV Department: Civil
Semester : VII
Exam details & date : Unit Test - IV 6.10.20
Faculty : S.A. Ramesh
Number of students : 11
No. of students attended : 11
No. of students absent : —
No. of students passed : 11
No. of students failed : —
Percentage of failures : 0%

RESULT DATA:

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	—	—	11	—	—

	Prepared By	Approved By
Sign:		
Name:	S.A. Ramesh	R. P. Subramanian
	Faculty	



RESULT ANALYSIS OF TEST

Subject : Testing of Materials Date : 15.10.20

Class : IV Department: Civil

Semester : III

Exam details & date : Unit Test - V 13.10.20

Faculty : S.A. Ramesh

Number of students : 11

No. of students attended : 11

No. of students absent : —

No. of students passed : 11

No. of students failed : —

Percentage of failures : 0%

RESULT DATA:

Marks	0-25	25-50	51-75	75-90	91-100
No. of Students	—	—	11	—	—

	Prepared By	Approved By
Sign:	<u>S.A. Ramesh</u>	<u>R. Prabhakaran</u>
Name:	<u>S.A. Ramesh</u>	<u>R. Prabhakaran</u>
	Faculty	HOD

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QUALITY OBJECTIVE MONITORING RECORD

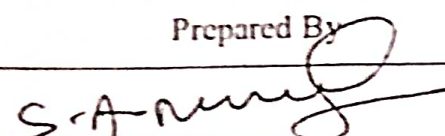
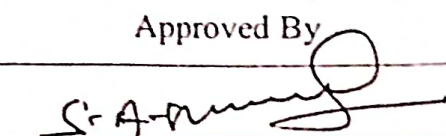
Department : Mechanical Engineering

Year : IV

Semester : VII

Subject : Testing of materials

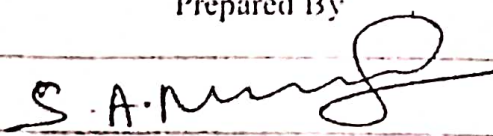
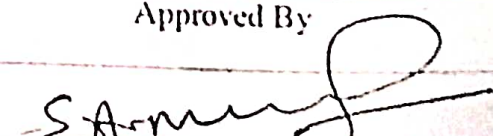
SN	Quality Objective	Unit Test-I		Unit Test-II		Unit Test-III		Unit Test-IV		Unit Test-V	
		Expecting result	Obtained result	Expecting result	Obtained result	Expecting result	Obtained result	Expecting result	Obtained result	Expecting result	Obtained result
1	To get 100% in University Exam	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
				Model Exam - I	Model Exam - II						
		100%	100%	100%	100%						

	Prepared By	Approved By
Sign:		
Name:	S.A. Ramesh	S.A. Ramesh
	Faculty	Dr. M. VIJAYAKUMAR ME., Ph.D., PRINCIPAL

CORRECTIVE ACTION REPORT

Dept. : Civil Engineering Year : IV
Subject : Testing of Materials Semester : VII

S.No	Unit Test	Percentage of marks	Root Cause (Metrics)	Corrective Action	Deadline date	Remarks
1	UT-1	100%	-	-	-	
2	UT-2	100%	-	-	-	
3	UT-3	100%	-	-	-	
4	UT-4	100%	-	-	-	
5	UT-5	100%	-	-	-	
6	Model Exam I	100%	-	-	-	
7	Model Exam II	100%	-	-	-	

	Prepared By	Approved By
Sign:		
Name:	S.A. Ramesh	S.A. Ramesh
	Faculty	HOD

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Vijayamangalam, Trichy.



SASURIE
College of Engineering
Vijayamangalam, Tiruppur

Model Examination			Date/Session	28.10.2020	Marks	100
Course	OME751	Course Title	TESTING OF MATERIALS			
Regulation	2017	Duration	3 Hours	Academic Year	2020-2021	
Year	IV	Semester	VII	Department	CIVIL	
COURSE OUTCOMES						
CO1:	Identify suitable testing technique to inspect industrial component					
CO2:	Ability to use the different technique and know its application and limitations					
CO3:	Analyze complex situations and make informed decisions that consider ethical, legal, and societal implication					
CO4:	Maintain transparency and avoid situations that could compromise their professional judgment.					
CO5:	Global perspective on ethical issues and practices in Engineering.					

Q.No.	Question	CO	BTS
PART A (Answer all the Questions 10 x 2 = 20 Marks)			
1	What is the need for standards in testing	CO1	RE
2	What is the difference between Destructive Testing and Non Destructive testing?	CO1	RE
3	Why the tensile samples are dog-bone shaped	CO1	RE
4	What is the significant difference between Rockwell hardness testing and Vicker's hardness testing?	CO1	RE
5	State the principle of liquid penetrates testing.	CO1	EV
6	What is the purpose of lead in testing?	CO2	RE
7	Why electron microscope gives better resolution than optical microscope?	CO2	RE
8	What is the difference between Energy dispersive and wave dispersive spectroscopy?	CO2	RE
9	What does Differential scanning calorimeter do and how does it work?	CO2	RE
10	What are the basic components of Mass Spectrometer?	CO2	RE
PART B (Answer all the Questions 5 x 13 =65 Marks)			
11a	Explain briefly about the classification of materials testing and testing standards	CO1	EV
OR			
11	Discuss briefly the testing organization and its committees	CO1	CR
12a	Draw S-N diagram (schematic) for mild steel and for Aluminum Explain how S-N diagram is plotted	CO1	CR
12b	Write briefly about the constant load creep testing machines	CO1	UN
13 a	Explain Magnetic particle testing and why metals with low coercive force s difficult to test in Magnetic particle inspection technique	CO1	EV
OR			
13 b	Explain the principle, advantages and limitations of Acoustic emission techniques	CO2	EV
14 a	Explain the interaction of electron beam with matter and explain how they are used to analyse the structural and compositional features	CO2	EV

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OR			
14 b	Explain any two magnetic techniques used for characterization of materials	CO2	EV
15 a	Explain the principle and applications of thermo-mechanical and dynamic mechanical analysis	CO2	EV
OR			
15 b	Explain how Optical Emission Spectroscopy works and mention its limitations	CO2	EV
PART C			
(Answer all the Questions 1 x 15 = 15 Marks)			
16 a	How Ductile to Brittle Transition Temperature (DBTT) is determined from toughness versus temperature plot and explain the factors affecting DBTT	CO2	RE
OR			
16 b	(i) When a magnetic field strength of 0.2 Tesla is applied on an electromagnetic lens perpendicular to the electron beam direction with an applied voltage of 20 kV, what would be the radius of 15-11 kg and charge is electron beam (Mass of electron is 9.109×10^{-31} coulombs)	CO2	RE
	(ii) Discuss on the effect of various parameters on the Depth of penetration in Eddy current testing (5)		

S.A. Ramesh
 Course Faculty
 (Name / Sign / Date)
 S. A. Ramesh

S.A. Ramesh
 HoD
 (Name / Sign / Date)
 S. A. Ramesh

Principal
 (Name / Sign / Date)

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Internal Assessment Test Answer Book

Name	Nivetha S			Year/ Semester/Section	10 / V / C
Register Number	732417103006	Date/Session	28.10.2023	Department	CIVIL
Course code	OML 751	Course Title	Testing of material		
Internal Assessment Test	IAT 1 <input type="checkbox"/>	IAT 2 <input type="checkbox"/>	IAT 3 <input type="checkbox"/>	Model	<input checked="" type="checkbox"/>
Name and Signature of the Invigilator with date	G. Jeyaraj 28/10/23				

Instruction to the Student: Put tick mark to the question attended in the column against question.

Part A			Part B/ Part C				Total Marks	
Q. No.	✓	Marks	Q. NO.	✓	a	b		
					Marks	Marks		
1	✓	2	11			✓	12	12
2	✓	2	12			✓	11	11
3	✓	2	13			✓	10	10
4	✓	2	14		-		-	-
5	✓	2	15			✓	10	10
6	✓	2	16			✓	8	8
7	✓	2	Grand Total				51	
8	✓	2	71				S. A. RAMGOWD.	
9	✓	2					Name and Signature of the Examiner with date	
10	✓	2						
Total		20	Grand Total					

To be filled by the examiner							
Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	36	64	-	-	-	-	100
Marks Obtained	33	38	-	-	-	-	71
IQAC Audit - Remarks							
Mark Verified							
							V. Venugopal Name and Signature of the IQAC member

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DEPARTMENT OF CIVIL ENGINEERING

Assignment Question Paper

Assignment – 01			Date of Issue:	10.09.2020	Marks	10
Course code	OML751	Course Title	Testing of Materials			
Year	IV	Semester/Section	VII	Date of Submission:	25.09.2020	

Q.No	Questions	CO
1	Describe the selection of materials	C01
2	Explain the classification of materials	C01

S.A. Ramesh
10/09/20
Name and Signature of the Faculty Incharge

S.A. Ramesh

N. Vellingiri
10/09/20
HoD/Civil

N. Vellingiri

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DEPARTMENT OF CIVIL ENGINEERING

Assignment Answer Sheet

Name of the Student : S. Nivetha

AU Register Number: 732417103006

Assignment - 01			Date of Issue:	10.09.2023	Marks	10
Course code	OML751	Course Title	Testing of Materials			
Year	IV	Semester/Section	VII	Date of Submission:	25.09.2023	

Q.No	Questions	CO
1	Describe the selection of materials	CO1
2	Explain the classification of materials	CO1

Mark Allocation

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

S.A. Ramesh
10/09/23

Name and Signature of the Faculty Incharge

S.A. Ramesh

N. Vellingiri
10/09/23

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N. Vellingiri

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DEPARTMENT OF CIVIL ENGINEERING

Tutorial Question Paper

Tutorial – 01		Date of Issue:	28.07.2018	Marks	10
Course code	CE8392	Course Title	APPLIED HYDRAULICS ENGINEERING		

Q.No	Questions	CO
1	A rectangular channel of 2 m deep and 8 m wide is running full of water. The slope of the bed of the channel is 1 in 950. Take Chezy's constant as 50. Calculate the discharge through the channel.	C402.1
2	Determine the most economical section of rectangular section carrying water at the rate of 0.6 cumecs. The bed slope of the channel is 1 in 2000. Assume Chezy's constant $C=50$.	C402.1
3	In a given channel y_o and y_c are two fixed depths, if Q , n and S_o are fixed. Also, there are three possible relations between y_o and y_c . Further, there are two cases where y_o does not exist. Based on these, how the channels are classified?	C402.1

V. Marajkumar 28/7/18

Name and Signature of the Faculty Incharge

V. Marajkumar

R. Prabhakaran
HoD/Civil

R. Prabhakaran

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DEPARTMENT OF CIVIL ENGINEERING

Tutorial Answer Sheet

Name of the Student : **BASKARAN K**

AU Register Number: **732417103001**

Tutorial - 01			Date of Issue: 28.07.2018	Marks	10
Course code	CE8392	Course Title	APPLIED HYDRAULICS ENGINEERING		
Year	IV	Semester/Section	VII / A & B	Date of Submission:	18.09.2017

Q.No	Questions	CO
1	A rectangular channel of 2 m deep and 8 m wide is running full of water. The slope of the bed of the channel is 1 in 950. Take Chezy's constant as 50. Calculate the discharge through the channel.	C402.1
2	Determine the most economical section of rectangular section carrying water at the rate of 0.6 cumecs. The bed slope of the channel is 1 in 2000. Assume Chezy's constant $C=50$.	C402.1
3	In a given channel y_o and y_c are two fixed depths, if Q , n and S_o are fixed. Also, there are three possible relations between y_o and y_c . Further, there are two cases where y_o does not exist. Based on these, how the channels are classified?	C402.5

Mark Allocation

Rubrics	Marks Allocated	Marks obtained
Problem solving approach	6	6
Correctness of Answer	2	2
Timely submission	2	2
Total marks	10	10

V. Monoj Kumar
Name and Signature of the Faculty Incharge

V. Monoj Kumar

R. Prabakaran
HoD/Civil

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