ॐ

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

1.1 Curricular Planning and Implementation (20)

1.1.1The 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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S.No	Description
1	Contents - Course File
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SASURIE INSTITUTIONS

SASURIE
College of Engineering

Department : CIVIL ENGINEERING
Subject Code & Name : CE 6701 - STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING
Class & Batch : IV - 2016 - 2020
Semester : 07

CONTENTS – COURSE FILE

S.NO	PARTICULARS	REMARKS
1	Time Table	Hard Copy ✓
2	Student name list	Hard Copy ✓
3	Student arrear list	Hard Copy ✓
4	Subject Information Record	Hard Copy ✓
5	Syllabus	Hard Copy ✓
6	Lesson Plan	Hard Copy ✓
7	Test Plan for the Subject	Hard Copy ✓
8	Result Analysis	Hard Copy ✓
9	Corrective Action Report	Hard Copy ✓
10	Quality objective monitoring record	Hard Copy ✓
11	Internal test mark sheet(Consolidated)	Hard Copy ✓
12	Internal test question paper with answer key	Hard Copy ✓
13	Model question paper with answer key	Hard Copy ✓
14	Slip test question paper with answer key	Hard Copy ✓
15	Sample Answer paper for all test(Min-3)	Available ✓
16	Content beyond the syllabus	–
17	Tutorial Class – schedule and content	–
18	Assignment – schedule and paper	Available ✓
19	PPT - handout	Soft Copy ✓
20	Video - Animation - Soft copy	Soft Copy ✓
21	Question bank	Soft Copy ✓
22	Sample university question papers(min 5 QP-recent exam)	Soft Copy ✓
23	Personal Log book – Updated	–
24	Lecture Note	Available ✓
25	Special Class if any, Approval letter, Schedule, content covered.	–

	Prepared By	Approved By
Sign:	N V	R P&A
Name:	N. Vellingiri Faculty	R. Prabhakaran HD

Head, Dept. Of Civil

SASURIE
COLLEGE OF ENGINEERING
VIJAYAMANGALAM

DR.M.VIJAYAKUMAR ME., Ph.D.,
PRINCIPAL
SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 056, Tirupur (Dt).

INDIVIDUAL TIME TABLE (2019-2020 ODD)

HOUR / DAY / TIME	8.55 a.m TO 9.00a.m	I 09.00a.m TO 09.55 a.m	II 09.55a.m TO 10.45 a.m	10.45a.m TO 10.55 a.m	III 10.55 a.m TO 11.45 a.m	IV 11.45 a.m TO 12.35 p.m	12.15 p.m TO 1.20 p.m	V 1.20 p.m TO 2.05 p.m	VI 2.05 p.m TO 2.50 p.m	2.50 p.m TO 3.00 p.m	VII 3.00 p.m TO 3.45 p.m	VIII 3.45 p.m TO 4.30 p.m
MONDAY												
TUESDAY									SDET			
WEDNESDAY						SDET						
THURSDAY								SDET				
FRIDAY			SDET									PL / SDET
SATURDAY					VAC / SDET							

S No	Subject Code	Name of the Subject	Branch & Semester	No of hours
1	CE6701	Structural Dynamics and Earthquake Engineering	CIVIL & VII	5
2		PLACEMENT	CIVIL & VII	1
3		Value Added Courses	CIVIL & VII	3
			TOTAL	9

Prepared by	Verified by	Authorized by
Ms M Poojitha	Mr R Prabhakaran	Dr. K. Pandiarajan
TT I/C	HD	Principal

Head, Dept. Of Civil

SASURIE COLLEGE OF ENGINEERING
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SASURIE INSTITUTIONS

SASURIE
College of Engineering

Academic year-2019-2020
Department of Civil engineering
IV CIVIL-NAMELIST

S.No.	Reg.No	Name of the student
1	732416103003	Arun Kumar B
2	732416103004	Bharathi S K
3	732416103005	Bismiya Basheer
4	732416103006	Chandru L
5	732416103007	Chandru K M
6	732416103008	Ellapparaj P
7	732416103009	Harish P
8	732416103010	Kuralarasan S
9	732416103011	Mageshwaran M
10	732416103012	Mahendiran P
11	732416103013	Manimaran.V
12	732416103014	Nanthagopal R
13	732416103015	Praveena T
14	732416103016	Ranjithkumar G
15	732416103017	Rinsha K P
16	732416103018	Sakthi SubramaniK
17	732416103019	Senthilnathan G
18	732416103020	Sivaramachandran N
19	732416103021	Soundarya S
20	732416103022	Subash P
21	732416103023	Vignesh V Nair
22	732416103024	Vijayapandi V
23	732416103025	Vikraman C
24	732417103301	S SATHISKUMAR
25	732416103501	J PRIYANKA
26	732416103502	A ANAND BABU
27	732416103503	A PRAVEEN KUMAR
28	732416103701	K MAYA KARUPU

Sign		
Name	Mr.N.VELLINGIRI	R.PRABHAVATHY
	Advisor	HD/IC

Head, Dept. Of Civil

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SASURIE INSTITUTIONS

SASURIE
College of Engineering

Academic year-2019-2020
Department of Civil engineering
IV CIVIL-NAMELIST

S.No.	Reg.No	Name of the student	Number of Arrear
1	732416103003	Arun Kumar B	14
2	732416103004	Bharathi S K	27
3	732416103005	Bismiya Basheer	3
4	732416103006	Chandru L	3
5	732416103007	Chandru K M	4
6	732416103008	Ellapparaj P	0
7	732416103009	Harish P	0
8	732416103010	Kuralarasan S	0
9	732416103011	Mageshwaran M	0
10	732416103012	Mahendiran P	7
11	732416103013	Manimaran V	27
12	732416103014	Nanthagopal R	0
13	732416103015	Praveena T	0
14	732416103016	Ranjithkumar G	0
15	732416103017	Rinsha K P	8
16	732416103018	Sakthi SubramaniK	9
17	732416103019	Senthilnathan G	3
18	732416103020	Sivaramachandran N	2
19	732416103021	Soundarya S	0
20	732416103022	Subash P	0
21	732416103023	Vignesh V Nair	9
22	732416103024	Vijayapandi V	4
23	732416103025	Vikraman C	0
24	732417103301	S SATHISKUMAR	4
25	732416103501	J PRIYANKA	1
26	732416103502	A ANAND BABU	0
27	732416103503	A PRAVEEN KUMAR	20
28	732416103701	K MAYA KARUPU	6

Sign		
Name	Mr.N.VELUNGIRI	Mr.R.PRABHAKARAN
	Advisor	HD/IC

Head, Dept. Of Civil

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Vijayamangalam, Tirupur

SUBJECT INFORMATION RECORD

Department	: CIVIL ENGINEERING
Subject	: CE6701- STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING
Year	: IV
Semester	: 07
Last year handled by	: S. Srinivasan.
Percentage of Result (last year)	: 87%
Quality Objectives	: Knowledge to analyse structures subjected to dynamic loading and to design the structures for seismic loading as per code provisions
Reference Book	:

(1) Chopra, AK., "Dynamics of Structures - Theory and Applications to Earthquake Engineering", 4th Edition, Pearson Education, 2011.

(2) Agarwal P and Shrikhande. M., "Earthquake Resistant Design of Structures", Prentice Hall of India Pvt. Ltd. 2007

	Prepared By	Approved By
Sign:		
Name:	N. Vellingiri	R. Prabhakaran
	Faculty	HD

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CE6701 STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING

L T P C
3 0 0 3

OBJECTIVES:

- The main objective of the course is to introduce dynamic loading and the dynamic performance of the structures to the students. Different types of dynamic loading also to be discussed. The detailed study on the performance of structures under earthquake loading is also one of the focus of the course.

UNIT I THEORY OF VIBRATIONS 9

Difference between static loading and dynamic loading – Degree of freedom – Idealisation of structure as single degree of freedom system - Formulation of Equations of motion of SDOF system - D'Alemberts principles – effect of damping – free and forced vibration of damped and undamped structures – Response to harmonic and periodic forces.

UNIT II MULTIPLE DEGREE OF FREEDOM SYSTEM 9

Two degree of freedom system – modes of vibrations – formulation of equations of motion of multi degree of freedom (MDOF) system - Eigen values and Eigen vectors – Response to free and forced vibrations - damped and undamped MDOF system – Modal superposition methods.

UNIT III ELEMENTS OF SEISMOLOGY 9

Elements of Engineering Seismology - Causes of Earthquake – Plate Tectonic theory – Elastic rebound Theory – Characteristic of earthquake – Estimation of earthquake parameters - Magnitude and intensity of earthquakes – Spectral Acceleration.

UNIT IV RESPONSE OF STRUCTURES TO EARTHQUAKE 9

Effect of earthquake on different type of structures – Behaviour of Reinforced Cement Concrete, Steel and Prestressed Concrete Structure under earthquake loading – Pinching effect – Bouchinger Effects – Evaluation of earthquake forces as per IS:1893 – 2002 - Response Spectra – Lessons learnt from past earthquakes.

UNIT V DESIGN METHODOLOGY 9

Causes of damage – Planning considerations / Architectural concepts as per IS:4326 – 1993 – Guidelines for Earthquake resistant design – Earthquake resistant design for masonry and Reinforced Cement Concrete buildings – Later load analysis – Design and detailing as per IS:13920 – 1993.

TOTAL: 45 PERIODS

OUTCOMES:

- At the end of the course, student will have the knowledge to analyse structures subjected to dynamic loading and to design the structures for seismic loading as per code provisions.

TEXTBOOKS:

1. Chopra, A.K., "Dynamics of Structures – Theory and Applications to Earthquake Engineering", 4th Edition, Pearson Education, 2011.
2. Agarwal. P and Shrikhande. M., "Earthquake Resistant Design of Structures", Prentice Hall of India Pvt. Ltd. 2007

REFERENCES:

1. Biggs, J.M., "Introduction to Structural Dynamics", McGraw Hill Book Co., New York, 1964
2. Dowrick, D.J., "Earthquake Resistant Design", John Wiley & Sons, London, 2009
3. Paz, M. and Leigh.W. "Structural Dynamics – Theory & Computation", 4th Edition, CBS Publishers & Distributors, Shahdara, Delhi, 2006.

R. P

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SASURIE COLLEGE OF ENGINEERING VIJAYAMANGALAM

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SASURIE INSTITUTIONS

LESSON PLAN

Department	CIVIL		
Faculty Name		Date	
Subject Code & Title		Semester	VII
Class	IV Year		

S.No	Proposed Date	Proposed Period	Details of Topic Covered	TA	Ref	Actual Date	Actual Period	HD
			UNIT I THEORY OF VIBRATIONS					
1	27.7.2019	6	Difference between static and dynamic loading; Degrees of freedom	1	1	27.7.19	6	
2	3.7.2019	4	Degrees of freedom system	1	1	31.7.19	4	
3	4.7.2019	5	Formulation of equation of motion & SDOF system	1	1	1.8.19	5	R.P.Sm1
4	4.7.2019	8	D'Alembert's principle	1	1	1.8.19	3	
5	5.7.2019	2	Effect of damping; Free vibration of undamped SDOF system	1	1	5.8.19	2	
6	9.7.2019	6	Forced vibration of undamped SDOF system	1	1	9.8.19	6	
7	10.7.2019	4	Free vibration of damped SDOF system Problems on evaluation of damper	1	1	10.8.19	4	
8	11.7.2019	5	Forced vibration of undamped SDOF system Problems on Forced vibration of damped SDOF system	1	1	11.8.19	5	R.P.Sm1
9	11.7.2019	8	Response to Harmonic and Periodic forces	1	1	11.8.19	8	
			UNIT II MULTIPLE DEGREE OF FREEDOM SYSTEM					
10	12.7.2019	7	Free vibration of Undamped System		1	12.7.19	2	
11	16.7.2019	6	Modes of vibration	1	1	13.7.19	2	
12	17.7.2019	4	formulation of equations of motion of multi degree of freedom (MDOF) system	1	1	16.7.19	6	
13	18.7.2019	5	Eigen values and Eigen vectors	1	1	18.7.19	8	
14	18.7.2019	8	Problems on Eigen values and Eigen vectors	1	1	23.7.19	6	R.P.Sm2
15	23.7.2019	6	Response to Free vibration of undamped & damped MDOF system	1	1	24.7.19	4	
16	24.7.2019	5	Response to Forced vibration of undamped & damped MDOF system	1	1	25.7.19	5	
17	30.7.2019	6	Modal superposition method	1	1	25.7.19	8	
18	31.7.2019	4	Problems on MDOF system	1	1	26.7.19	2	
			UNIT III ELEMENTS OF SEISMOLOGY					
19	1.8.2019	5	Elements of engineering seismology	2	1	29.7.19	1	
20	1.8.2019	8	Causes of Earthquake	2	1	30.7.19	6	
21	7.8.2019	2	Plate Tectonic theory Faults	2	1	31.7.19	3	
22	6.8.2019	6	Elastic rebound Theory	2	1	1.8.19	5	R.P.Sm2
23	7.8.2019	4	Characteristic of earthquake	2	1	1.8.19	8	
24	8.8.2019	5	Estimation of earthquake parameters	2	1	2.8.19	2	
25	8.8.2019	8	Magnitude of earthquakes	2	1	6.8.19	6	
26	9.8.2019	2	Intensity of earthquakes	2	1	8.8.19	5	
27	13.8.2019	6	Spectral acceleration	2	1	8.8.19	8	
			UNIT IV RESPONSE OF STRUCTURES TO EARTHQUAKE					
28	20.8.2019	6	Effect of earthquake on different types of structures	2	1	12.8.19	1	
29	21.8.2019	4	Behaviour of RCC and steel under earthquake loading	2	1	13.8.19	6	

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SASURIE

LESSON PLAN

Year & Sem	:	Date	:
Faculty Name	:	Semester	:
Subject Code & Name	:		
Unit	:		

S.No	Proposed Date	Proposed Period	Details of Topic Covered	TA	Ref	Actual Date	Actual Period	Init
30	[illegible]	1	Behaviour of Prestressed concrete under earthquake loading	2	1	19.8.19	1	R. PRINCIPAL
31	[illegible]	2	Pinching effect	2	1	20.8.19	2	
32	[illegible]	1	Resonance effects	2	1	21.8.19	1	
33	[illegible]	2	Evaluation of earthquake forces as per IS 1893 2002	2	1	22.8.19	2	
34	[illegible]	1	Response spectra Design period	2	1	23.8.19	1	R. PRINCIPAL
35	[illegible]	1	Lessons learnt from past earthquakes	2	1	26.8.19	1	
36	[illegible]	2	Recent Indian earthquakes	2	1	28.8.19	2	
			UNIT V DESIGN METHODOLOGY					
37	6/9/2019	2	Causes of damage	2	1	29.8.19	2	R. PRINCIPAL
38	11/9/2019	1	Planning considerations as per IS 4326-1993	2	1	30.8.19	1	
39	12/9/2019	1	Architectural considerations as per IS 4326-1993	2	1	31.8.19	1	
40	13/9/2019	1	Guidelines for earthquake resistant design	2	1	4.9.19	1	
41	13/9/2019	1	Earthquake resistant design for masonry buildings	2	1	4.9.19	1	
42	18/9/2019	1	Earthquake resistant design for Reinforced concrete buildings	2	1	5.9.19	1	
43	19/9/2019	1	Lateral load analysis	2	1	6.9.19	1	R. PRINCIPAL
44	19/9/2019	1	Design and detailing as per IS 13920-1993	2	1	3.9.19	1	
45	20/9/2019	2	Problems on lateral load analysis	2	1	6.9.19	2	

Reference books (Ref)

Reference books (Ref)

1 Chopra, A.K., "Dynamics of Structures - Theory and Applications to Earthquake Engineering", 4th Edition, Person Education, 2011

2 Agarwal P and Shrikhande M., "Earthquake Resistant Design of Structures", Prentice Hall of India Pvt. Ltd 2007

Teaching Aids (TA)

1 Black Board with Chalk
2 LCD Projector
3 Others (Hand outs, Charts, Cutset Models)

Std

Prepared by	Verified by	Authorised by
[illegible]	[illegible]	Dr.K.PANDIARAJAN
Faculty	PRINCIPAL	Principal

Head, Dept. Of Civil

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(Accredited by NAAC)

CORRECTIVE ACTION REPORT

DEPT : CIVIL ENGINEERING YEAR : IV

SUBJECT: CE6701- STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING SEMESTER : 07

S.No	Internal Test	Percentage of marks	Root Cause (Metrics)	Corrective Action	Deadline date	Remarks
1	Internal Test I	73	Poor writing in 2 marks	Two mark test conducted	20.8.19	-
2	Internal Test II	73	Poor performance in Part-B	Tutorial class conducted.	After completion of syllabus	-
3	Model Exam	88	-	-	-	-

Prepared by	Verified by
N.V (N.Vellingiri)	R.P.R.I (R.PRABHAKARAN)
Subject Faculty name	HOD

Head, Dept. Of Civil

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SASURIE INSTITUTIONS

SASURIE
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Vijayamangalam, Tirupur

QUALITY OBJECTIVE MONITORING RECORD

Department : Civil Engineering

Year : IV

Semester : 07

Subject : CE 6701- STRUCTURAL DYNAMIC AND EARTHQUAKE ENGINEERING

S.No	Quality Objective	Internal Test-I		Internal Test-II		Internal Test-III	
		Expecting result	Obtained result	Expecting result	Obtained result	Expecting Result	Obtained result
1.	To obtain 85% result in University Exam	85%	73%	85%	73%	85%	88%

	Prepared By	Approved By
Sign:	N.V	R.P.S
Name:	N.Vellingiri	R. Prabhakaran
	Faculty	HD

Head, Dept. Of Civil

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TEST PLAN FOR SUBJECT

Subject : CE6701 Structural Dynamics and Earthquake Engineering

Faculty : N. Vellingiri

Semester : 07

Year : IV

Department : Civil Engineering

S. No.	Description	Planned Date/Month	Actual Conducted Date / Month	Remarks
1.	Internal Test - 1	05.08.2019	5.8.2019	-
2.	Internal Test - 2	11.09.2019	11.09.2019	-
3.	Model Test	14.10.2019	14.10.2019	-

	Prepared By	Approved By
Sign:	N.V	R PRabhakaran
Name:	N. Vellingiri	R. Prabhakaran
	Faculty	HD

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Head, Dept. Of Civil

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RESULT ANALYSIS OF TEST

Subject : CE6701 - Structural Dynamics and Earthquake Engineering
Date : 13.8.2019

Class : IV
Department: Civil Engineering

Semester : 07

Exam details & date : INTERNAL TEST I & 5.8.2019

Faculty : N.vellingiri

Number of students : 28

No. of students attended : 26

No. of students absent : 02

No. of students passed : 19

No. of students failed : 07

Percentage of failures : 26.92%

RESULT DATA:

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	1	4	10	11	0

	Prepared By	Approved By
Sign:	N.V	R P&T
Name:	N.vellingiri	R.Prabhakaran
	Faculty	HD

Head Dept. Of Civil

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RESULT ANALYSIS OF TEST

Subject : CE6701-Structural Dynamics and Earthquake Engineering

Date : 19.9.2019

Class : IV

Department: Civil Engineering

Semester : 07

Exam details & date : INTERNAL TEST-II &

Faculty : N Vellingiri

Number of students : 28

No. of students attended : 26

No. of students absent : 2

No. of students passed : 19

No. of students failed : 7

Percentage of failures : 26.92%

RESULT DATA:

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	0	4	17	5	0

	Prepared By	Approved By
Sign:	N.V	R P.S
Name:	N.Vellingiri	R. Prabhakaran.
	Faculty	HD

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Cc:

SASURIE

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RESULT ANALYSIS OF TEST

Subject : CE6701-Structural Dynamics and Earthquake Engineering
Date : 17.9.2019
Class : IV
Department : Civil Engineering
Semester : 07
Exam details & date : INTERNAL TEST-II
Faculty : N Vellingiri
Number of students : 28
No of students attended : 26
No of students absent : 2
No of students passed : 19
No of students failed : 7
Percentage of failures : 26.92%

RESULT DATA:

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	0	4	17	5	0

	Prepared By	Approved By
Sign	N.V	
Name	N.Vellingiri	E.Prabhakaran
	Faculty	HD

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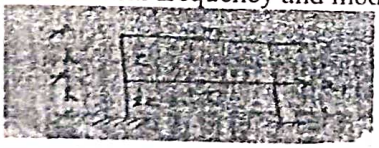
Model Examination			Date/Session	14.10.2019	Marks	100
Course	CE6701	Course Title	Structural Dynamics and Earthquake Engineering			
Regulation	2017	Duration	3 Hours	Academic Year	2019-2020	
Year	IV	Semester	VII	Department	CIVIL	

COURSE OUTCOMES

C701.1	Student will develop knowledge in the simulation and mathematical model development.
C701.2	Students will be trained to identify, formulate and solve complicated problem
C701.3	Students will be able to understand the role of natural calamity in the damage of structures
C701.4	Students will be able to develop the skill to analyse data and to apply the same in the practical problems
C701.5	Students will be able to apply the developed methodologies for the safe and stable design of structures.

Q.No.	Question	CO	BTS
	PART A (Answer all the Questions 10 x 2 = 20 Marks)		
1	Define degree of freedom	C701.1	RE
2	State D'Alemberts principle	C701.1	UN
3	List out the assumptions made in the concept of shear building	C701.1	AN
4	What is fundamental frequency and fundamental mode shape	C701.1	RE
5	What is elastic rebound theory?	C701.1	RE
6	Define fault and list its types	C701.2	RE
7	Define response spectra	C701.2	RE
8	Write short note on pounding effect in building	C701.2	UN
9	Define structural plan density.	C701.2	RE
10	Differentiate Weak storey and soft storey.	C701.2	AN
	PART B (Answer all the Questions 5x 13 = 65 Marks)		
11a	A machine foundation weighs 60kN. The spring constant is 11000kN/m and dash constant (C) -200kN-s/n, Explain (i) Whether the system is over damped, under damped or critically damped (ii) Determine logarithmic decrement (iii) Determine Ratio of two successive amplitudes If the initial displacement is 10men and initial velocity is zero at t=0.1s	C701.1	EV
	OR		
11	Write the various types of damping.	C701.1	UN
12a	Solve the natural frequency and mode shape of the system. 	C701.1	AV
12b	State and prove Orthogonality and Normality principle of mode shapes.	C701.1	UN

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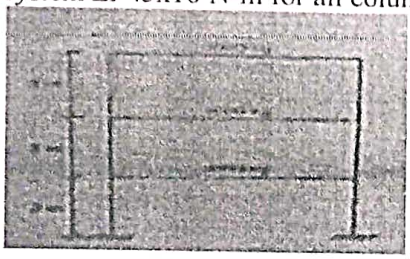
13 a	i) Explain the seismic waves with neat sketch. (6) ii) Discuss about the elastic rebound theory. (7)	C701.1	UN CR
	OR		
13 b	Describe about the characteristics of strong ground motion with neat graph	C701.2	EV
14 a	write the step by step procedure for seismic analysis of RC holdings as per IS1893-2002	C701.2	UN
	OR		
14 b	List the lessons learnt from the past earthquake in India and explain a briefly	C701.2	AN
15 a	Explain about the earthquake design philosophy for masonry and RCC Buildings	C701.2	EV
	OR		
15 b	(i) Explain in detail about lateral load analysis (6) (ii) Explain in detail about detailing as per IS 13920- 1993 (7)	C701.2	EV
	PART C **(Answer all the Questions 1 x 15 = 15 Marks)**		
16 a	Determine the natural frequencies and mode slopes of the given MDOF system EI 15x10 N-m for all columns 	C701.2	EV
	OR		
16 b	Differentiate magnitude and intensity. How will you measure magnitude and intensity? Explain the methods briefly	C701.2	AN

N.V 14/10/19

Course Faculty

(Name /Sign / Date)

(N. Vellingiri)

R.P 14/10/19

HoD

(Name /Sign / Date)

(R. Prabhakaran)

Principal

(Name /Sign / Date)

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Internal Assessment Test Answer Book

Name	J. Priyanka			Year/ Semester/Section	IV / VII
Register Number	732416103501	Date/Session	14.10.2019	Department	CIVIL
Course code		Course Title	Structural Dynamics and Earthquake Engineering		
Internal Assessment Test	IAT 1 ☐	IAT 2 ☐	IAT 3 ☐	Model ☑	
Name and Signature of the Invigilator with date		14/10/19			

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 Marks	✓	b Marks	
1	✓	2	11	✓	3			3
2	✓	2	12	✓	12			12
3	✓	2	13	✓	i) 6, ii) 4			10
4	✓	2	14	✓	10			10
5	✓	1	15	✓	7			7
6	✓	2	16	✓	10			10
7	✓	2					Grand Total	52
8	✓	2						
9	✓	0						
10	✓	2						
Total		17	69 Grand Total				Name and Signature of the Examiner with date	

To be filled by the examiner

Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	49	51	–	–	–	–	100
Marks Obtained	34	3	–	–	–	–	69

IQAC Audit - Remarks

Marks Verified

V. Venugopal
Name and Signature of the IQAC member

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DEPAKTMENT OF CIVIL ENGINEERING

Assignment Question Paper

Assignment – 01			Date of Issue:	18.07.2019	Marks	10
Course code	CE6701	Course Title	Structural dynamics and earthquake engineering			
Year	III	Semester/Section	VI	Date of Submission:	30.07.2019	

Q.No	Questions	CO
1	Explain the detail about vibration	C701.1
	A mass of 1kg is suspended by spring having a stiffness 6000n/m the mass is displaced down words from equilibrium position of 0.01m to find (i) equation of motion of System (ii)natural frequency of system (iii) the response of the system as function of time (iv) the total energy of the system	C701.1

18/07/19

Name and Signature of the Faculty Incharge

N. Vellingiri

R. P. 18/07/19

HoD/Civil

R. Prabhakaran

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DEPARTMENT OF CIVIL ENGINEERING

Assignment Answer Sheet

Name of the Student : Sathis Kumar

AU Register Number: 732416103301

Assignment – 01			Date of Issue:	18.07.2019	Marks	10
Course code	CE6701	Course Title	Structural Dynamics and Earthquake Engineering			
Year	IV	Semester/Section	VII	Date of Submission:	30.07.2019	

Q.No	Questions	CO
1	Explain the detail about vibration	C701.1
2	A mass of 1kg is suspended by spring having a stiffness 6000n/m the mass is displaced down words from equilibrium position of 0.01m to find (i) equation of motion of System (ii)natural frequency of system (iii) the response of the system as function of time (iv) the total energy of the system	C701.1

Mark Allocation

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

N.V 31/7/19

Name and Signature of the Faculty Incharge

N.Vellingiri

R.P 31/07/19

HoD/Civil

R. Prabhakaran

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