JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

I Year – I SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	BS1101	Mathematics – I	3	0	0	3
2	BS1102	Mathematics – II	3	0	0	3
3	BS1108	Engineering Physics	3	0	0	3
4	ES1104	Engineering Mechanics	3	1	0	4
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1109	Engineering Physics Lab	0	0	3	1.5
8	PR1101	Engineering Exploration Project	0	0	2	1
Total Credits			**16**	**0**	**12**	**19.5**

I Year – II SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	HS1201	English	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1210	Engineering Chemistry	3	0	0	3
4	ES1201	Programming for problem Solving Using C	3	0	0	3
5	ES1207	Computer Aided Engineering Drawing	1	0	3	2.5
6	ES1202	Programming for problem Solving Using C Lab	0	0	3	1.5
7	BS1211	Engineering Chemistry Lab	0	0	3	1.5
8	HS1203	Communications Skills Lab	0	0	3	1.5
9	ES1219	Workshop Practice Lab	0	0	3	1.5
10	MC1201	Environmental Science	3	0	0	0
Total Credits			**15**	**0**	**11**	**20.5**

TENTATIVE LESSON PLAN: R19BS1101

Course Title: MATHEMATICS - 1		
Section : CE	Date : 26-08-2019	Page No : 01 of 02
Revision No : 00	Prepared By : S.SUMAN	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: SEQUENCES, SERIES AND MEAN VALUE THEOREMS **CO1:utilize mean value theorems to real life problems** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
1	SEQUENCES AND SERIES: Convergence and Divergence	From: 26-08-2019 To: 14-09-2019	Lecture interspersed with discussions
2	Ratio test		
3	Comparison test		
4	Integral test		
5	Cauchy 's root test		
6	Alternating series		
7	Leibnitz 's rule		
8	Mean Value Theorems: Rolle 's Theorem		
9	Lagrange 's mean value theorem		
10	Cauchy 's mean value theorem		
11	Taylor 's and Maclaurin 's theorems with remainders		
UNIT-II DIFFERENTIAL EQUATIONS OF FIRST ORDER AND FIRST DEEGREE **CO2: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
12	Introduction: Differential Equations of First order first degree	From: 16-09-2019 To: 05-10-2019	Lecture interspersed with discussions
13	Exact Equations – Conditions of Exactness		
14	Equations reducible to Exact		
15	Non Exact Differential Equations		
16	Linear Differential Equations of first order		
17	Bernouli Equation		
18	Equations reducible to linear		
19	Orthogonal Trajectories - Cartesian		
20	Orthogonal Trajectories - Polar		
21	Newton's law of cooling		
22	Natural growth or decay		
23	Electrical Circuits		
UNIT-III : LINEAR DIFFERENTIAL EQUATIONS OF HIGHER ORDER			

CO3: Solve the differential equations related to various engineering fields **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
24	Linear DE of constant coefficients	From: 07-10-2019 To: 19-10-2019 & From: 28-10-2019 To: 09-11-2019	Lecture interspersed with discussions
25	Solutions of $f(D) = Q(x), Q(x) = e^{ax}$		
26	$Q(x) = \sin ax \ or \ \cos ax$		
27	$Q(x) = x^n$		
28	$Q(x) = e^{ax}V(x)$		
29	$Q(x) = xV(x)$		
30	$Q(x) = x^n \sin ax \ or \ \cos ax$		
31	Method of variation of parameters		
32	Applications: LCR Circuit		
UNIT-IV PARTIAL DIFFERENTIATION **CO4: Familirize with functions of several variables which is useful in optimization** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
33	Homogeneous function; Euler's Theorem	From: 11-11-2019 To: 30-11-2019	Lecture interspersed with discussions
34	Total Derivative; Chain rule		
35	Taylor's mean value theorems		
36	Maclaurin's series		
37	Jacobians, formulae		
38	Functional dependence		
39	Maxima minima of two variables		
40	Langranges method		
UNIT-V: MULTIPLE INTEGRALS **CO5: Apply double integration techniques in evaluating areas bounded by region** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
41	Introduction	From: 02-12-2019. To: 21-12-2019	Lecture interspersed with discussions
42	Double integrals		
43	Triple integrals		
44	Change of order of integration		
45	Change of variable		
46	Applications: Finding areas		
47	Finding volumes		

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TENTATIVE LESSON PLAN: R19BS1102

Course Title: MATHEMATICS - II			
Section : CE	**Date : 26/08/2019**		**Page No :** 01 of 03
Revision No : 00	**Prepared By : K.BASAVARAJU**		**Approved By : HOD**
Tools: Black board			
No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**
UNIT – I: LINEAR SYSTEM OF EQUATIONS **CO1: To instruct the concept of Matrices in solving algebraic equations** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
1	Introduction to matrices	From: 26-08-2019 To 17-09-2019	Lecture interspersed with discussions
2	Rank of matrix- definition, properties		
3	Problems on rank by Echelon form		
4	Rank by normal form		
5	PAQ form problems		
6	Homogeneous system AX=0		
7	Non Homogeneous system AX=B		
8	Problems on rank method		
9	Gauss Elimination method		
10	Applications on finding current in a circuit		
11	Eigenvalues-definition		
12	Properties of Eigen values		
13	Properties of Eigen values		
14	Problems on finding Eigen values,vectors		
15	Problems on finding Eigen values,vectors		
UNIT – II:CAYLEY HAMILTON THEOREM , QUADRATIC FORMS **CO2: To determine the eigen values and eigen vectors of a matrix and verification of Caley Hamilton theorem** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
16	Caley Hamilton theorem, verification, problems	From: 18-09-2019 To 12-10-2019	Lecture interspersed with discussions
17	Diagonalization – problems		
18	Quadratic forms – definition, examples		
19	Matrix form of a quadratic form		
20	Canonical form of a quadratic form		
21	Methods of reducing a QF in to canonical form		
22	Orthogonal reduction method		
23	Congruent operations method		
24	Lagrange's method		
25	Problems on finding nature of a QF		
UNIT – III: ITERATIVE METHODS **CO3: Evaluating lengths of plane curves, volumes and surface areas of solids of revolution.** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
26	Introduction		
27	Method-1: Bisection Method		
28	Problems		

29	Method-II: Regular False Method	From: 14-10-2019 To 02-11-2019	Lecture interspersed with discussions
30	problems		
31	Method-III: Iteration Method		
32	problems		
33	Method-IV: Newton Raphson Method		
34	problems		
35	Gauess-Jordan method		
36	Gauess-Seidal iteration method		
UNIT – IV: INTERPOLATION **CO4: Evaluating improper integrals by Gamma function , definite integral by Beta function** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
37	Introduction	From: 04-11-2019. To 28-11-2019	Lecture interspersed with discussions
38	Forward and backward differences		
39	Newton's forward interpolation formula - problems		
40	Newton's backward forward interpolation formula -problems		
41	problems		
42	Gauss Forward interpolation formula -problems		
43	Gauss backward interpolation formula -problems		
44	Lagrange's Interpolation formula		
45	problems		
46	operators		
UNIT – V: NUMERICAL INTEGRATION AND SOLUTION OF ODE **CO5: To find gradient, divergent and curl by using differential operator** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
47	Trapezoidal rule	From 29-11-2019 To 21-12-2019	Lecture interspersed with discussions
48	Simpson's 1/3rd rule		
49	Simpson's 3/8rd rule		
50	Taylor's series		
51	problems		
52	Picard's method of successive approximation		
53	Euler's method		
54	Euler's modified method		
55	Runge- kutta method		
56	problems		

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TENTATIVE LESSON PLAN: BS1108/R19

Course Title: Engineering Physics			
Section : CE	Date : 26.08.2019	Page No : 1 of 2	
Revision No :00	Prepared By : M. Vidya Elizabeth	Approved By : HOD	
Tools:			

No. of Periods	TOPIC	DATE	Mode of Delivery
UNIT	**II : ACOUSTICS & ULTRASONICS** **CO2: Explain how sound is propagated in buildings, analyze acoustic properties of typically used materials in buildings and recognize sound level disruptors and their use in architectural acoustics. Use of ultrasonics in flaw detection using NDT technique.**	**From : 26-08-2019**	
1	ACOUSTICS: Introduction, Reverberation		
2	Reverberation time		
3	Sabine's formula		
4	Formula (Derivation using growth and decay method)		
5	Absorption coefficient and its determination		
6	Determination factorsaffecting acoustics of buildings and their remedies.		
7	Problems		
8	**ULTRASONICS**: Introduction		Lecture interspersed with discussions
9	Production of ultrasonics by Magnetostriction	**To 14-09-2019**	
10	Non-Destructive Testing		
11	Production of ultra-sonics by piezoelectric methods		
12	Detection of ultrasonic		
13	Acoustic grating - Non-Destructive Testing		
14	Pulse echo system through transmission mode		
15	Pulse echo system through reflection modes		
16	Applications		
UNIT	**I : MECHANICS:** **CO1: Identify forces and moments in mechanical systems using scalar and vector techniques and extend Newton's second law for inertial and non-inertial frame of reference**	From: 16-09-2019	
17	Basic laws of vectors and scalars		
18	Rotational frames		
19	Conservative and Non Conservative Forces		
20	F=-grad V, Newton's law of inertial		
21	Linear accelerating non inertial frames of references		
22	Rotating frame of reference with constant angular velocity	To 5-10-2019	Lecture interspersed with discussions
23	P Harmonic Oscillator;		
24	Damped Harmonic Motion		
25	Forced Oscillations		
26	Resonance		
27	Problems		
UNIT	**III : ELASTICITY** **CO3: Understand the elasticity and plasticity**	From: 14-10-2019	

	concepts, Study different types of moduli and their relation and analyze the concepts of shearing force and moment of inertia.		
28	Stress&Strain		
29	Hooks law	To 11-11-2019	Lecture interspersed with discussions
30	Stress-Strain Curve		
31	Generalised Hooks law with thermal strains for isotropic materials		
32	Generalised Hooks law without thermal strains for isotropic materials		
33	Different types of moduli and their relations		
34	Bending of beams		
35	Bending moment of a beam		
36	Depression of cantilever.		
37	Problems		
UNIT	**IV: LASERS & SENSORS** **CO4: Understand the basic concepts of LASER light Sources and study different types of laser systems. Identify different types of sensors and their working principles.**		
38	**LASER**: Characteristics	From: 13-11-2019	
39	Spontaneous and Stimulated Emission of Radiation		
40	Population inversion		
41	Einstein coefficients		
42	Relation between them and their significance		
43	Pumping Mechanisms		
44	Ruby Laser & its applications		
45	He-Ne Laser & its Applications	To 28-11-2019	
46	**SENSORS**: Different types of sensors and applications		
47	Strain and Pressure sensors		
48	Piezoelectric, Magneto strictive sensors		
49	Temperature sensor		
50	Bimetallic strip, Pyroelectric detectors		
51	Problems		
UNIT	**V: MAGNETISM & DIELECTRICS** **CO5: Explain the applications of dielectric and magnetic materials & Apply the concept of magnetism to magnetic devices.**		
52	**MAGNETISM**: Introduction	From: 30-11-2019	
53	Magnetic dipole momentum, Magnetization-		
54	Magnetic susceptibility and permeability		
55	Origin of permanent magnetic moment		
56	Bohr Magneton -Classification of magnetic materials (Dia, Para and Ferro)		
57	Soft and hard magnetic materials	To 21-12-2019	
58	Applications of Ferromagnetic material		
59	Problems		
60	**DIELECTRICS:** Introduction,		
61	Dielectric polarization		
62	Susceptibility and Dielectricconstant		
63	Types of polarizations: Electronic and Ionic		

64	Orientational polarizations		
65	Lorentz internal field		
66	Claussius_Mossoti equation-		
67	Loss, Breakdown and strength of dielectric materials		
68	Frequency dependence of polarization - Applications of dielectrics		
69	Problems		

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CIVIL

TENTATIVE LESSON PLAN

Course Title: ENGINEERING DRAWING		Course Code: ES1103
Section : I	Date : 26/08/2019	Page No : 01 of 02
Revision No : 00	Prepared By : G. Durga Prasad	Approved By : HOD

Tools: Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I INTRODUCTION TO DRAWING **CO1: Able to draw the polygons, curves.** **TB: "Engineering Drawing", by N.D. Butt &V.M. Panchal, Chariot Publishing House, Anand. 49th Edition – 2006.**			
1	Introduction	30/08/2019	Lecture interspersed with discussions
2	Lettering and Dimensioning	05/09/2019	
3	Geometrical constructions	06/09/2019	
4	Parabola, Ellipse and Hyperbola	12/09/2019	
5	Polygons	13/09/2019	
6	Cycloids	19/09/2019	
7	Involutes	20/09/2019	
8	Vernier scales	26/09/2019	
9	Plain scales, diagonal scale	27/09/2019	
UNIT-II INTRODUCTION TO ORTHOGRAPHIC PROJECTIONS **CO2: Able to draw the scales, projections of points and lines parallel to one plane and to other plan.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
10	Projections of points in various quadrants	10/10/2019	Lecture interspersed with discussions
11	Projections of lines, lines parallel either of the reference planes	11/10/2019	
12	Determination of true lengths,	17/10/2019	
13	Angle of inclination and traces.	18/10/2019	
UNIT-III PROJECTIONS OF PLANES **CO3: Able to draw the projections of lines inclined to both the planes and its traces.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
14	Projection of plane (parallel to one plane and perpendicular to other plane)	31/10/2019	Lecture interspersed with discussions
15	Projection of plane (parallel to one plane and inclined to other plane)	01/11/2019	
16	Projection of plane (inclined to both plane)	07/11/2019	
17	Projection of plane (inclined to both plane)	08/11/2019	
UNIT-IV PROJECTIONS OF SOLIDS **CO4: Able to identify the different plans and draw the projections of the plane inclined to both the planes.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
18	Projections of Solids	14/11/2019	Lecture

19	Prisms, Pyramids	15/11/2019	interspersed with discussions
20	Cones with the axis inclined to both the planes	21/11/2019	
21	Cylinders with the axis inclined to both the planes	22/11/2019	
UNIT-V Conversion of isometric views to orthographic views **CO5: Able to identify the basic solids and draw the projections of the solids inclined to one of the planes.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
22	Isometric views to orthographic views	28/11/2019	Lecture interspersed with discussions
23	Orthographic views to isometric views.	29/11/2019	
24	Computer Aided Design	06/12/2019	
25	Drawing practice using Auto CAD	12/12/2019	
26	Creating 2D&3D drawings	13/12/2019	

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Signature of HOD
Date: 27/8/19

TENTATIVELESSON PLAN

Course Title: ENGINEERING MECHANICS		Course code: R19ES1104	
Section : Sec I	Date : 26/08/2019	Page No : 01 to 03	
Revision No : 00	Prepared By: R. KIRAN KUMAR	Approved By : HOD	
Tools: BLACK BOARD			
No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**
UNIT-IINTRODUCTION TO ENGG. MECHANICS, SYSTEMS OF FORCES **CO1:Become familiar with a basic concepts of force and friction , direction and its application.** **TB: "ENGINEERING MECHANICS", S.S BHAVIKATTI, 1stEdition, New age publications, 2012.**			
1	UNIT – 1 Introduction	26/08/2019	Lecture interspersed with discussions
2	Basic terminologies Laws of mechanics Laws of mechanics Laws of mechanics	28/08/2019	
3	Systems of Forces	30/08/2019	
4	Resultant of Forces, Parallelogram law	30/08/2019	
5	Parallelogram law problems	31/08/2019	
6	Resolution method- concurrent forces, Problems	4/09/2019	
7	Problems	5/09/2019	
8	Problems	6/09/2019	
9	Problems	6/09/2019	
10	Moment of force, couple	7/09/2019	
11	Moment of force, couple, Varignon's theorem	9/09/2019	
12	Resolution of force to a force and couple	12/09/2019	
13	Parallel forces and problems	13/09/2019	
14	Problems	13/09/2019	
15	Resultant of concurrent system in space	16/09/2019	
16	Resultant of concurrent system in space-problems	16/09/2019	
17	Friction introduction, coefficient of friction, coulomb's laws of dry friction, cone of friction, angle of friction	18/09/2019	
18	Problems	19/09/2019	
19	Problems, wedge friction problem	20/09/2019	
20	Wedge friction problem	20/09/2019	
21	Ladder problem	21/09/2019	
22	Ladder problem	21/09/2019	
23	Ladder problem	23/09/2019	

UNIT-II EQUILIBRIUM OF SYSTEMS OF FORCES **CO2: Gain knowledge about free body diagrams. Solution to problems using graphical methods and law of triangle of forces.** **TB:"ENGINEERING MECHANICS", S.S BHAVIKATTI, 1st Edition, New age publications, 2012.**			
24	Equilibrium of system of forces	25/09/2019	Lecture interspersed with discussions
25	Equilibrium of system of forces problems	26/09/2019	
26	Problems	27/09/2019	
27	Problems- In space	27/09/2019	
28	Problems – Beams	28/09/2019	
29	Problems – Beams	30/09/2019	
30	Graphical method of analysis	10/10/2019	
UNIT-III CENTROID , CENTRE OF GRAVITY **CO3:Become familiar with the concepts of centre of gravity.** **TB:"ENGINEERING MECHANICS", S.S BHAVIKATTI, 1st Edition, New age publications, 2012.**			
31	UNIT – 3 Centroids of simple figures	11/10/2019	Lecture interspersed with discussions
32	Problems	11/10/2019	
33	Problems	14/10/2019	
34	Problems	16/10/2019	
35	Centroids of Composite Figures	17/10/2019	
36	Problems	30/10/2019	
37	Problems	1/11/2019	
38	Problems	1/11/2019	
39	Problems	6/11/2019	
40	Pappus theorem – theorem 1 Pappus theorem – theorem 2	7/11/2019	
41	Centre of gravity of simple body, right circular cone	11/11/2019	
UNIT-IV AREA MOMENTS OF INERTIA,MASS MOMENT OF INERTIA **CO4:Gain knowledge about moment of inertia and polar moment of inertia including transfer methods and their applications.** **TB:"ENGINEERING MECHANICS", S.S BHAVIKATTI, 1st Edition, New age publications, 2012.**			
42	UNIT – 4 Area Moment of Inertia Definition, Polar Moment of Inertia, Transfer Theorems	11/11/2019	Lecture interspersed with discussions
43	Moments of Inertia of Composite Figures-problems	13/11/2019	
44	Moments of Inertia of Composite Figures-problems	14/11/2019	
45	MI- problems	16/11/2019	
46	MI- problems	18/11/2019	
47	Mass moment of inertia of basic bodies – rod, rectangular plate	20/11/2019	
48	Mass moment of inertia of basic bodies – circular plate, solid cone	21/11/2019	
49	Mass moment of inertia of basic bodies – solid sphere	22/11/2019	

UNIT-V KINEMATICS, KINETICS, WORK – ENERGY METHOD, IMPULSE **CO5:Become familiar with motion in straight line and in curvilinear paths, its velocity and acceleration computation and methods of representing plane motion, work, energy and particle motion** **TB:"ENGINEERING MECHANICS", S.S BHAVIKATTI, 1st Edition, New age publications, 2012.**			
50	UNIT – 5 Kinematics, Introductions	22/11/2019	
51	Rectilinear and curvilinear motions	23/11/2019	
52	Velocity and acceleration	25/11/2019	
53	Motion of rigid body	27/11/2019	
54	Analysis in plane motion	28/11/2019	
55	problems	29/11/2019	
56	problems	29/11/2019	
57	problems	30/11/2019	
58	problems	2/12/2019	
59	problems	4/12/2019	
60	Kinetics	5/12/2019	Lecture interspersed with discussions
61	D'Alembert's principle	6/12/2019	
62	Kinetics - Analysis of body in translation	6/12/2019	
63	Analysis of body in rotation	7/12/2019	
64	Work, energy and power	9/12/2019	
65	Principle of conservation of energy	11/12/2019	
66	problems	12/12/2019	
67	problems	13/12/2019	
68	Principle of work energy.	13/12/2019	
69	Principle of Impulse-momentum	18/12/2019	
70	problems	19/12/2019	
71	problems	20/12/2019	
72	Revision	20/12/2019	
73	Revision	21/12/2019	

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Date: 29/2/2020

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

I Year – I SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	HS1101	English	3	0	0	3
2	BS1101	Mathematics - I	3	0	0	3
3	BS1106	Applied Chemistry	3	0	0	3
4	ES1101	Programming for Problem Solving Using C	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1107	Applied Chemistry Lab	0	0	3	1.5
8	ES1102	Programming for Problem Solving Using C Lab	0	0	3	1.5
9	MC1101	Environmental Science	3	0	0	0
Total Credits			**16**	**0**	**12**	**19**

I Year – II SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	BS1202	Mathematics – II	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1204	Applied Physics	3	0	0	3
4	ES1212	Fundamentals of Computers	3	0	0	3
5	ES1217	Electrical Circuit Analysis - I	3	0	0	3
6	ES1218	Electrical Engineering Workshop	0	0	3	1.5
7	BS1205	Applied Physics Lab	0	0	3	1.5
8	HS1203	Communication Skills Lab	0	1	2	2
9	PR1201	Engineering Exploration Project	0	0	2	1
Total Credits			**15**	**1**	**10**	**21**

TENTATIVE LESSON PLAN: R19HS1101

Course Title: English HS1101		
Section : EEE	Date : 26-08-2019	Page No : 01 of 03
Revision No : 00	Prepared By: Mr. Yellamanda Vusa	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: A Drawer full of happiness, Deliverance by Premchand **CO1: Facilitate effective listening skills for better comprehension of academic lectures and English spoken by native speakers** **TB: —Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
1	**A Drawer full of happiness**	26-8-19	Lecture interspersed with discussions
2	**Listening : Short Audio Texts**	28-8-19	
3	**Speaking :** Asking and answering questions	30-8-19	
4	**Reading : Skimming and Scanning**	3-9-19	
5	**Reading for Writing :** Paragraph writing	3-9-19	
6	**Vocabulary :** Technical Vocabulary	4-9-19	
7	**Grammar :** Content words and function words	4-9-19	
8	The Deliverance : Munshi Prem Chand	5-9-19	
9	Long Answers	6-9-19	
10	Short Answers	9-9-19	
UNIT-II Nehru's letter to his daughter Indira on her birthday, Bosom Friend by Hira Bansode **CO2: Focus on appropriate reading strategies for comprehension of various academic texts and authentic materials** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
12	**Nehru's letter to his daughter Indira on her birthday**	11-9-19	Lecture interspersed
13	**Listening:** Answering a series of questions	12-9-19	
14	**Speaking:** Discussion in pairs	13-9-19	
15	**Reading**: Identifying sequence of ideas	16-9-19	

16	**Reading for Writing**: Summarizing	18-9-19	with discussions
17	**Vocabulary**: Technical vocabulary	19-9-19	
18	**Grammar**: Use of articles	20-9-19	
19	**Bosom Friend Hira Bansode**	23-9-19	
20	Long Answers	23-9-19	
21	Short Answers	25-9-19	
UNIT-III: Stephen Hawking-Positivity "Benchmark", Shakespeare's Sister by Virginia Woolf **CO3: Help improve speaking skills through participation in activities such as role plays, discussions and structured talks/oral presentations** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
24	**Stephen Hawking-Positivity 'Benchmark**	27-9-19	Lecture interspersed with discussions
25	**Listening:** Listening for global comprehension	30-9-19	
26	**Speaking:** Discussing specific topics in pairs	10-10-19	
27	**Reading**: Reading a text in detail	14-10-19	
28	**Reading for Writing**: Summarizing	15-10-19	
29	**Vocabulary**: Technical vocabulary	16-10-19	
30	**Grammar**: Verbs - tenses; subject-verb agreement	4-11-19	
31	**Shakespeare's Sister by Virginia Woolf**	7-11-19	
32	Long Answers	8-11-19	
UNIT IV Liking a Tree, Unbowed: Wangari Maathai, Telephone Conversation-Wole Soyinka **CO4: Impart effective strategies for good writing and demonstrate the same in summarizing, writing well organized essays, record and report useful information.** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
33	**Like a Tree, Unbowed: Wangari Maathai-biography**	14-11-19	Lecture interspersed with
34	**Listening:** Making predictions while listening	15-11-19	
35	**Speaking:** Role plays for practice of conversational	18-11-19	

	English		discussions
36	**Reading**: Studying the use of graphic elements	20-11-19	
37	**Reading for Writing**: Information transfer	21-11-19	
38	**Vocabulary**: Technical vocabulary	23-11-19	
39	**Grammar**: Quantifying expressions	27-11-19	
40	Telephone Conversation: Wole Soyinka	28-11-19	
UNIT-V: Stay Hungry-Stay foolish, Still I Rise by Maya Angelou **CO5: Provide knowledge of grammatical structures and vocabulary and encourage their appropriate use in speech and writing** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
41	**Stay Hungry-Stay foolish**	4-12-19	Lecture interspersed with discussions
42	**Listening** Identifying key terms	5-12-19	
43	**Speaking:** Formal oral presentations	6-12-19	
44	**Reading**: Reading for comprehension	9-12-19	
45	**Reading for Writing**: Writing academic proposals	12-12-19	
46	**Vocabulary**: Technical vocabulary	13-12-19	
47	**Grammar**: Editing short texts	16-12-19	

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TENTATIVE LESSON PLAN: R19BS1101

Course Title: MATHEMATICS - 1		
Section : EEE	Date : 26-08-2019	Page No : 01 of 02
Revision No : 00	Prepared By : S.KALPANA	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: SEQUENCES, SERIES AND MEAN VALUE THEOREMS **CO1:utilize mean value theorems to real life problems** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
1	SEQUENCES AND SERIES: Convergence and Divergence	From: 26-08-2019 To: 14-09-2019	Lecture interspersed with discussions
2	Ratio test		
3	Comparison test		
4	Integral test		
5	Cauchy 's root test		
6	Alternating series		
7	Leibnitz 's rule		
8	Mean Value Theorems: Rolle 's Theorem		
9	Lagrange 's mean value theorem		
10	Cauchy 's mean value theorem		
11	Taylor 's and Maclaurin 's theorems with remainders		
UNIT-II DIFFERENTIAL EQUATIONS OF FIRST ORDER AND FIRST DEEGREE **CO2: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
12	Introduction: Differential Equations of First order first degree	From: 16-09-2019 To: 05-10-2019	Lecture interspersed with discussions
13	Exact Equations – Conditions of Exactness		
14	Equations reducible to Exact		
15	Non Exact Differential Equations		
16	Linear Differential Equations of first order		
17	Bernouli Equation		
18	Equations reducible to linear		
19	Orthogonal Trajectories - Cartesian		
20	Orthogonal Trajectories - Polar		
21	Newton's law of cooling		
22	Natural growth or decay		
23	Electrical Circuits		

UNIT-III : LINEAR DIFFERENTIAL EQUATIONS OF HIGHER ORDER **CO3: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
24	Linear DE of constant coefficients	From: 07-10-2019 To: 19-10-2019 & From: 28-10-2019 To: 09-11-2019	Lecture interspersed with discussions
25	Solutions of $f(D) = Q(x), Q(x) = e^{ax}$		
26	$Q(x) = \sin ax \ or \ \cos ax$		
27	$Q(x) = x^n$		
28	$Q(x) = e^{ax}V(x)$		
29	$Q(x) = xV(x)$		
30	$Q(x) = x^n \sin ax \ or \ \cos ax$		
31	Method of variation of parameters		
32	Applications: LCR Circuit		
UNIT-IV PARTIAL DIFFERENTIATION **CO4: Familirize with functions of several variables which is useful in optimization** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
33	Homogeneous function; Euler's Theorem	From: 11-11-2019 To: 30-11-2019	Lecture interspersed with discussions
34	Total Derivative; Chain rule		
35	Taylor's mean value theorems		
36	Maclaurin's series		
37	Jacobians, formulae		
38	Functional dependence		
39	Maxima minima of two variables		
40	Langranges method		
UNIT-V: MULTIPLE INTEGRALS **CO5: Apply double integration techniques in evaluating areas bounded by region** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
41	Introduction	From: 02-12-2019. To: 21-12-2019	Lecture interspersed with discussions
42	Double integrals		
43	Triple integrals		
44	Change of order of integration		
45	Change of variable		
46	Applications: Finding areas		
47	Finding volumes		

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Enikepadu, Vijayawada 521108
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(ISO 9001:2015 Certified Institution)
Department of Science and Humanities

TENTATIVE LESSON PLAN: APPLIED CHEMISTRY (BS1106)

Course Title: B.Tech			
Section : EEE	Date : 26-8- 2019	Page No : 1-3	
Revision No :00	Prepared By : K.P.T.VIJAYA BHASKAR	Approved By : HOD	
Tools: Black board and chalk.			

No. of Periods: 75	TOPIC	Date	Mode of Delivery
	Unit -II :ELECTROCHEMICAL CELLS AND CORROSION		
	CO2: Outline the basics for the construction of electrochemicalcells, batteries and fuelcells. Understand the mechanism of corrosion and how it can be prevented.		
	(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)		
1	**Unit -II :ELECTROCHEMICAL CELLS**	26-8-2019	Lecture interspersed with discussions
2	Single electrode potentia.	26-8-2019	
3	Electrochemical series and uses of series	27-8-2019	
4	standard hydrogen electrode, calomel electrode	28-8-2019	
5	concentration cell-	30-8-2019	
6	construction of glass electrode	3-9-2019	
7	Batteries: Dry cell, Ni-Cd cells,	4-9-2019	
8	Ni Metal hydride cells, Li ion battery, zinc air cells	5-9-2019	
9	Fuel cells: H2-O2, CH3OH-O2,	6-9-2019	
10	phosphoric acid, molten carbonate	9-9-2019	
11	**Corrosion:**-Definition-theories of corrosion	9-9-2019	
12	galvanic corrosion, differential aeration corrosion, stress corrosion,	9-9-2019	
13	waterline corrosion-passivity of metals-galvanic series	11-9-2019	
14	Factors influencing rate of corrosion-corrosion control	13-9-2019	
15	Protective coatings: Surface preparation, cathodic	16-9-2019	
16	Anodic coatings, electroplating, electroless plating (nickel).	17-9-2019-	
17	Paints (constituents, functions, special paints).	18-9-2019	
	Unit – I: POLYMER TECHNOLOGY		
	CO1: Importance of usage of plastics in household appliances and composites(FRP) in aerospace and automotive industries.		
	(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)		
1	Polymerisation:- Introduction-methods of polymerization	23-9-2019	
2	physical and mechanical properties.	23-9-2019	

3	Plastics: Compounding-fabrication	24-9-2019	Lecture interspersed with discussions
4	preparation, properties and applications of PVC,	25-9-2019	
5	polycarbonates and Bakelite-mention some examples of plastic.	26-9-2019	
6	Materials used in electronic gadgets, recycling of e-plastic waste	26-9-2019	
7	Elastomers:- Natural rubber-drawbacks-vulcanization	26-9-2019	
8	preparation, properties and applications of synthetic rubbers	27-9-2019	
9	(Buna S, thiokol and polyurethanes	27-9-2019	
10	Composite materials: Fiber reinforced plastics-.	28-9-2019	
11	Conducting polymers-	30-9-2019	
12	Biodegradable polymers biopolymers	30-9-2019	
13	Biomedical polymers	11-10-2019	

UNIT III: MATERIAL CHEMISTRY

CO3: Explain the preparation of semiconductors and nanomaterials, engineering applications of nanomaterials, superconductors and liquidcrystals.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1	**Part I : Non-elemental semiconducting materials**	14-10-2019	Lecture interspersed with discussions
2	Semiconductor devices (p-n junction diode as rectifier, junction transistor	15-10-2019	
3	Insulators & magnetic materials: electrical insulators	16-10-2019	
4	Ferro and ferri magnetism-Hall effect and its applications.	17-10-2019	
5	**Part II: Nano materials**:- Introduction-sol-gel method-	18-10-2019	
6	characterization by BET, SEM and TEM methods	24-10-2019	
7	Applications of graphene-carbon nanotubes and fullerenes:	5-11-2019	
8	Types, preparation and applications Liquid crystals	6-11-2019	
9	Introduction-types-applications. Super conductors:-Type –I, Type II-characteristics and applications.	7-11-2019	

UNIT IV: ADVANCED CONCEPTS/TOPICS IN CHEMISTRY

C04: Outline the basics of computational chemistry and molecular switches.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1	Computational chemistry: Introduction, Ab Initio studies Molecular switches	10-11-2019	

2.	characteristics of molecular motors and machines, Rotaxanes	12-11-2019	Lecture interspersed with discussions
3.	Catenanes as artificial molecular machines, prototypes	18-11-2019	
4.	linear motions in rotaxanes, an acid-base controlled molecular shuttle	18-11-2019	
5.	a molecular elevator,	19-11-2019	
6.	an autonomous light-powered molecular motor	20-11-2019	
7.	Computational chemistry: Introduction, Ab Initio studies Molecular switches	21-11-2019	
8.	characteristics of molecular motors and machines,	22-11-2019	

UNIT V: SPECTROSCOPIC TECHNIQUES & NON CONVENTIONAL ENERGY SOURCES

CO5: Recall the increase in demand for power and hence alternative sources of power are studied due to depleting sources of fossil fuels. Advanced instrumental techniques are introduced.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1.	**Part A: SPECTROSCOPIC TECHNIQUES** Electromagnetic spectrum-UV	29-11-2019	Lecture interspersed with discussions
2.	laws of absorption, instrumentation,	2-12-2019	
3	Theory of electronic spectroscopy, Frank-condon principle	3-12-2019	
4.	chromophores and auxochromes, intensity shifts, applications	4-12-2019	
5.	FT-IR (instrumentation and IR of some organic compounds, applications).	5-12-2019	
6.	Magnetic resonance imaging and CT scan (procedure & applications).	6-12-2019	
7.	**Part B: NON CONVENTIONAL ENERGY SOURCES**	9-12-2019	
8.	Design, working, schematic diagram, advantages and disadvantages of photovoltaic cell,	10-12-2019	
9.	hydropower, geothermal power,	11-12-2019 12-12-2019	
10.	Tidal and wave power	17-12-2019	

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TENTATIVE LESSON PLAN: R19ES1101

Course Title: PROGRAMMING FOR PROBLEM SOLVING USING C (ES1101)		
Section : Sec A	Date : 26/8/2019	Page No : 01 of 03
Revision No : 00	Prepared By : CH SIVA RAJESH	Approved By : HOD

Tools: Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I	**Introduction to C language** **CO1: To learn about the computer systems, computing environments, developing of a computer program and Structure of a C Program.** **TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE**		
1	Computer Systems	27-8-19	Lecture Interspersed With discussions
2	Computing Environments	28-8-19	
3	Computer languages	28-8-19	
4	Creating and running Programs	29-8-19	
5	Computer Numbering System	30-8-19	
6	Storing Integers	31-8-19	
7	Storing Real Numbers	3-9-19	
8	C Programs, Identifiers	4-9-19	
9	Types, Variable	4-9-19	
10	Constants, Input/output	5-9-19	
11	Programming Examples	6-9-19	
12	Scope, Storage Classes and Type Qualifiers	7-9-19	
13	Expressions Precedence and Associativity	11-9-19	
14	Side Effects, Evaluating Expressions	11-9-19	
15	Type Conversion Statements	12-9-19	
16	Simple Programs	13-9-19	
17	Command Line Arguments	17-9-19	
18	**Tutorial**	17-9-19	
UNIT-II	**Operators, Selection and Repetition** **CO2: To gain knowledge of the operators, selection, control statements and repetition in C.** **TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE**		
19	Exact Size Integer Types	18-9-19	Lecture interspersed
20	Logical Bitwise Operators	18-9-19	
21	Shift Operators	19-9-19	
22	Logical Data and Operators	20-9-19	
23	Two Way Selection	21-9-19	
24	Multiway Selection	24-9-19	

25	More Standard Functions	25-9-19	with discussions
26	Concept of Loop	25-9-19	
27	Pretest and Post-test Loops	26-9-19	
28	Initialization and Updating	27-9-19	
29	Event and Counter Controlled Loops	28-9-19	
30	Loops in C	1-10-19	
31	Other Statements Related to Looping	3-10-19	
32	Looping Applications	4-10-19	
33	Programming Example The Calculator Program	5-10-19	
35	**Tutorial**	5-10-19	
No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**

UNIT-III Arrays, String, Enum, Structure, Unions

CO3: To learn about the design concepts of arrays, strings, enumerated structure and union types. To learn about their usage.

TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE

36	Concepts, Using Array in C	15-10-19	Lecture interspersed with discussions
37	Array Application	16-10-19	
38	Two Dimensional Arrays	16-10-19	
39	Multidimensional Arrays	17-10-19	
40	Programming Example – Calculate Averages	18-10-19	
41	String Concepts, C String	19-10-19	
42	String Input / Output Functions	29-10-19	
43	Arrays of Strings	30-10-19	
44	String Manipulation Functions	30-10-19	
45	String/ Data Conversion	31-10-19	
46	A Programming Example – Morse Code	1-11-19	
47	The Type Definition (Type def)	2-11-19	
48	Enumerated Types	5-11-19	
49	Structure	6-11-19	
50	Unions	6-11-19	
51	Programming Application	7-11-19	
52	**Tutorial**	7-11-19	

UNIT-IV Pointers

CO4: To assimilate about pointers, dynamic memory allocation and know the significance of Preprocessor.

TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE

No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**
53	Introduction	8-11-19	
54	Pointers to pointers	12-11-19	
55	Compatibility, L value and R value	13-11-19	
56	Arrays, and Pointers	13-11-19	

57	Pointer Arithmetic and Arrays	14-11-19	Lecture interspersed with discussions
58	Memory Allocation Function	15-11-19	
59	Array of Pointers	16-11-19	
60	Programming Application	19-11-19	
61	Processor Commands	20-11-19	
62	**Tutorial**	20-11-19	
UNIT-V	**Files and Functions**		
CO5: To assimilate about File I/O and significance of functions.			
TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE			
63	Files, Streams	21-11-19	Lecture interspersed with discussions
64	Standard Library Input / Output Functions	22-11-19	
65	Formatting Input / Output Functions	23-11-19	
66	Character Input / Output Functions	26-11-19	
67	Text versus Binary Streams	27-11-19	
68	Functions for Files	27-11-19	
69	Converting File Type	28-11-19	
70	Designing, Structured Programs	29-11-19	
71	Function in C	30-11-19	
72	User Defined Functions	3-12-19	
73	Inter-Function Communication	4-12-19	
74	Standard Functions	4-12-19	
75	Passing Array to Functions	5-12-19	
76	Passing Pointers to Functions	10-12-19	
77	Recursion	12-12-19	
78	Passing an Array to Function	17-12-19	
79	**Tutorial**	19-12-19	

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TENTATIVE LESSON PLAN

Course Title: ENGINEERING DRAWING		Course Code: ES1103
Section : I	Date : 26/08/2019	Page No : 01 of 02
Revision No : 00	Prepared By : G. Durga Prasad	Approved By : HOD

Tools: Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I INTRODUCTION TO DRAWING **CO1: Able to draw the polygons, curves.** **TB: "Engineering Drawing", by N.D. Butt &V.M. Panchal, Chariot Publishing House, Anand. 49th Edition – 2006.**			
1	Introduction	30/08/2019	Lecture interspersed with discussions
2	Lettering and Dimensioning	05/09/2019	
3	Geometrical constructions	06/09/2019	
4	Parabola, Ellipse and Hyperbola	12/09/2019	
5	Polygons	13/09/2019	
6	Cycloids	19/09/2019	
7	Involutes	20/09/2019	
8	Vernier scales	26/09/2019	
9	Plain scales, diagonal scale	27/09/2019	
UNIT-II INTRODUCTION TO ORTHOGRAPHIC PROJECTIONS **CO2: Able to draw the scales, projections of points and lines parallel to one plane and to other plan.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
10	Projections of points in various quadrants	10/10/2019	Lecture interspersed with discussions
11	Projections of lines, lines parallel either of the reference planes	11/10/2019	
12	Determination of true lengths,	17/10/2019	
13	Angle of inclination and traces.	18/10/2019	
UNIT-III PROJECTIONS OF PLANES **CO3: Able to draw the projections of lines inclined to both the planes and its traces.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
14	Projection of plane (parallel to one plane and perpendicular to other plane)	31/10/2019	Lecture interspersed with discussions
15	Projection of plane (parallel to one plane and inclined to other plane)	01/11/2019	
16	Projection of plane (inclined to both plane)	07/11/2019	
17	Projection of plane (inclined to both plane)	08/11/2019	
UNIT-IV PROJECTIONS OF SOLIDS **CO4: Able to identify the different plans and draw the projections of the plane inclined to both the planes.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
18	Projections of Solids	14/11/2019	Lecture

19	Prisms, Pyramids	15/11/2019	interspersed with discussions
20	Cones with the axis inclined to both the planes	21/11/2019	
21	Cylinders with the axis inclined to both the planes	22/11/2019	
UNIT-V Conversion of isometric views to orthographic views **CO5: Able to identify the basic solids and draw the projections of the solids inclined to one of the planes.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
22	Isometric views to orthographic views	28/11/2019	Lecture interspersed with discussions
23	Orthographic views to isometric views.	29/11/2019	
24	Computer Aided Design	06/12/2019	
25	Drawing practice using Auto CAD	12/12/2019	
26	Creating 2D&3D drawings	13/12/2019	

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Date: 26/8/19

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Date: 27/8/19

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TENTATIVE LESSON PLAN: R19BS1101

Course Title: MATHEMATICS - 1		
Section : MECH	**Date : 26-08-2019**	**Page No :** 01 of 02
Revision No : 00	**Prepared By : S.SUMAN**	**Approved By : HOD**

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: SEQUENCES, SERIES AND MEAN VALUE THEOREMS **CO1:Utilize mean value theorems to real life problems** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
1	SEQUENCES AND SERIES: Convergence and Divergence	From: 26-08-2019 To: 14-09-2019	Lecture interspersed with discussions
2	Ratio test		
3	Comparison test		
4	Integral test		
5	Cauchy 's root test		
6	Alternating series		
7	Leibnitz 's rule		
8	Mean Value Theorems: Rolle 's Theorem		
9	Lagrange 's mean value theorem		
10	Cauchy 's mean value theorem		
11	Taylor 's and Maclaurin 's theorems with remainders		
UNIT-II DIFFERENTIAL EQUATIONS OF FIRST ORDER AND FIRST DEEGREE **CO2: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
12	Introduction: Differential Equations of First order first degree	From: 16-09-2019 To: 05-10-2019	Lecture interspersed with discussions
13	Exact Equations – Conditions of Exactness		
14	Equations reducible to Exact		
15	Non Exact Differential Equations		
16	Linear Differential Equations of first order		
17	Bernouli Equation		
18	Equations reducible to linear		
19	Orthogonal Trajectories - Cartesian		
20	Orthogonal Trajectories - Polar		
21	Newton's law of cooling		
22	Natural growth or decay		
23	Electrical Circuits		

CO3: Solve the differential equations related to various engineering fields **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
24	Linear DE of constant coefficients	From: 07-10-2019 To: 19-10-2019 & From: 28-10-2019 To: 09-11-2019	Lecture interspersed with discussions
25	Solutions of $f(D) = Q(x), Q(x) = e^{ax}$		
26	$Q(x) = \sin ax \ or \ \cos ax$		
27	$Q(x) = x^n$		
28	$Q(x) = e^{ax}V(x)$		
29	$Q(x) = xV(x)$		
30	$Q(x) = x^n \sin ax \ or \ \cos ax$		
31	Method of variation of parameters		
32	Applications: LCR Circuit		
UNIT-IV PARTIAL DIFFERENTIATION **CO4: Familirize with functions of several variables which is useful in optimization** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
33	Homogeneous function; Euler's Theorem	From: 11-11-2019 To: 30-11-2019	Lecture interspersed with discussions
34	Total Derivative; Chain rule		
35	Taylor's mean value theorems		
36	Maclaurin's series		
37	Jacobians, formulae		
38	Functional dependence		
39	Maxima minima of two variables		
40	Langranges method		
UNIT-V: MULTIPLE INTEGRALS **CO5: Apply double integration techniques in evaluating areas bounded by region** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
41	Introduction	From: 02-12-2019. To: 21-12-2019	Lecture interspersed with discussions
42	Double integrals		
43	Triple integrals		
44	Change of order of integration		
45	Change of variable		
46	Applications: Finding areas		
47	Finding volumes		

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF MECHANICAL ENGINEERING

I Year – I SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	BS1101	Mathematics – I	3	0	0	3
2	BS1102	Mathematics – II	3	0	0	3
3	BS1108	Engineering Physics	3	0	0	3
4	ES1101	Programming for Problem Solving Using C	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1109	Engineering Physics Lab	0	0	3	1.5
8	ES1102	Programming for Problem Solving Using C Lab	0	0	3	1.5
9	MC1104	Constitution of India	2	0	0	0
Total Credits			**15**	**0**	**12**	**19**

I Year – II SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	HS1201	English	3	0	0	3
2	BS1210	Engineering Chemistry	3	0	0	3
3	ES1204	Engineering Mechanics	3	0	0	3
4	ES1206	Basic Electrical & Electronics Engineering	3	0	0	3
5	ES1207	Computer Aided Engineering Drawing	1	0	3	2.5
6	HS1203	Communication Skills Lab	0	0	2	1
7	BS1211	Engineering Chemistry Lab	0	0	2	1.5
8	ES1208	Basic Electrical & Electronics Engineering Lab	0	0	3	1.5
9	ES1219	Workshop Practice Lab	0	0	3	1.5
10	PR1201	Engineering Exploration Project	0	0	2	1
Total Credits			**13**	**0**	**15**	**21**

TENTATIVE LESSON PLAN: R19BS1202

Course Title: MATHEMATICS - II		
Section : MECHANICAL	Date : 26-08-2019	Page No : 01 of 02
Revision No : 00	Prepared By: K.BASAVARAJU	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1:SOLVING SYSTEM OF LINEAR EQUATIONS, EIGEN VALUES AND EIGEN VECTORS **CO1:solve system of linear algebraic equations using Gauss elimination, Gauss Jordan, Gauss Seidel (L3)** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
1	Introduction to matrices	From 26-08-2019 To: 14-09-2019	Lecture interspersed with discussions
2	Rank of matrix- definition, properties		
3	Problems on rank by Echelon form		
4	Rank by normal form		
5	PAQ form problems		
6	Homogeneous system AX=0		
7	Non Homogeneous system AX=B		
8	Problems on rank method		
9	Gauss Elimination method		
10	Eigen values – definition		
11	Properties of Eigen values		
12	Properties of Eigen values		
13	Problems on findingeigen values, vectors		
14	Problems on finding eigen values, vectors		
UNIT – II:, CALEY-HAMILTON THEOREM, QUADRATIC FORMS **CO2:Develop the use of matrix algebra techniques that is needed by engineers for practical applications (L6)** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			

15	Caley Hamilton theorem, verification, problems	From: 16-09-2019 To: 05-10-2019	Lecture interspersed with discussions
16	Finding inverse and power of a matrix by caley Hamilton theorem		
17	Diagonalization – problems		
18	Quadratic forms – definition, examples		
19	Matrix form of a quadratic form		
20	Canonical form of a quadratic form		
21	Methods of reducing a QF in to canonical form		
22	Orthogonal reduction method		
23	Congruent operations method		
24	Lagrange's method		
25	Problems on finding nature of a QF		

UNIT-III: UNIT – III: ITERATIVE METHODS:

CO3:Avaluate approximating the roots of polynomial and transcendental equations by different algorithms (L5)

TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications

26	Introduction	From: 07-10-2019 To: 19-10-2019 & From: 28-10-2019 To: 09-11-2019	Lecture interspersed with discussions
27	Method – 1: Bisection method		
28	Problems		
30	Method – 2: Regulafalsi method		
31	Problems		
33	Method – 3: Iteration method		
34	Problems		
35	Method – 4: Newton Raphson method		
36	Problems		
37	Newton Raphson method simultaneous equations		
38	Gauss Jacobi Method		
39	Gauss Seidal Method		
40	problems		

UNIT – IV: INTERPOLATION

CO4:Apply Newton's forward & backward interpolation and Lagrange's formulae for equal and unequal intervals (L3)

TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications

41	Introduction: Forward and Backward Differences	From: 11-11-2019 To: 30-11-2019	Lecture interspersed with discussions
42	Newton's Forward interpolation formula		
43	Problems		
44	Newton's Backward interpolation formula		
45	Problems		
46	Gauss Forward interpolation formula – Problems		
47	Problems		
48	Gauss Backward interpolation formula – Problems		
49	Problems		
50	Lagranges interpolation formula – Problems		
51	Problems		
52	Operators		
UNIT – V: NUMERICAL INTEGRATION AND SOLUTION OF ORDINARY DIFFERENTIAL EQUATION **CO5:Apply different algorithms for approximating the solutions of ordinary differential equations to its analytical computations (L3)** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
53	Trapezoidal rule	From 02-12-2019. To: 21-12-2019	Lecture interspersed with discussions
54	Simpson's 1/3 rule		
55	Problems		
56	Simpson's 3/8 rule		
57	Taylor's series method		
58	Problems		
59	Picard's method of successive approximation		
60	Euler's method		
61	Euler's modified method		
62	Problems		
63	Rungekutta method		
64	Problems		

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TENTATIVE LESSON PLAN: R19 BS1108

Course Title: Engineering Physics			
Section : ME	Date : 26.08.2019		Page No : 1 of 2
Revision No :00	Prepared By : M. Vidya Elizabeth		Approved By : HOD
Tools:			

No. of Periods	TOPIC	DATE	Mode of Delivery
UNIT	**II : ACOUSTICS & ULTRASONICS** **CO2: Explain how sound is propagated in buildings, analyze acoustic properties of typically used materials in buildings and recognize sound level disruptors and their use in architectural acoustics. Use of ultrasonics in flaw detection using NDT technique.**	**From : 26-08-2019**	
1	ACOUSTICS: Introduction, Reverberation		
2	Reverberation time		
3	Sabine's formula		
4	Formula (Derivation using growth and decay method)		
5	Absorption coefficient and its determination		
6	Determination factorsaffecting acoustics of buildings and their remedies.		
7	Problems		
8	**ULTRASONICS**: Introduction		Lecture interspersed with discussions
9	Production of ultrasonics by Magnetostriction	**To 14-09-2019**	
10	Non-Destructive Testing		
11	Production of ultra-sonics by piezoelectric methods		
12	Detection of ultrasonic		
13	Acoustic grating - Non-Destructive Testing		
14	Pulse echo system through transmission mode		
15	Pulse echo system through reflection modes		
16	Applications		
UNIT	**I : MECHANICS:** **CO1: Identify forces and moments in mechanical systems using scalar and vector techniques and extend Newton's second law for inertial and non-inertial frame of reference**	From: 16-09-2019	
17	Basic laws of vectors and scalars		
18	Rotational frames		
19	Conservative and Non Conservative Forces		
20	F=-grad V, Newton's law of inertial		
21	Linear accelerating non inertial frames of references		
22	Rotating frame of reference with constant angular velocity	To 5-10-2019	Lecture interspersed with discussions
23	P Harmonic Oscillator;		
24	Damped Harmonic Motion		
25	Forced Oscillations		
26	Resonance		
27	Problems		
UNIT	**III : ELASTICITY** **CO3: Understand the elasticity and plasticity**	From: 14-10-2019	

	concepts, Study different types of moduli and their relation and analyze the concepts of shearing force and moment of inertia.		
28	Stress&Strain		
29	Hooks law	To 11-11-2019	
30	Stress-Strain Curve		
31	Generalised Hooks law with thermal strains for isotropic materials		Lecture interspersed with discussions
32	Generalised Hooks law without thermal strains for isotropic materials		
33	Different types of moduli and their relations		
34	Bending of beams		
35	Bending moment of a beam		
36	Depression of cantilever.		
37	Problems		
UNIT	**IV: LASERS & SENSORS** **CO4: Understand the basic concepts of LASER light Sources and study different types of laser systems. Identify different types of sensors and their working principles.**		
38	**LASER**: Characteristics	From: 13-11-2019	
39	Spontaneous and Stimulated Emission of Radiation		
40	Population inversion		
41	Einstein coefficients		
42	Relation between them and their significance		
43	Pumping Mechanisms		
44	Ruby Laser & its applications		
45	He-Ne Laser & its Applications	To 28-11-2019	
46	**SENSORS**: Different types of sensors and applications		
47	Strain and Pressure sensors		
48	Piezoelectric, Magneto strictive sensors		
49	Temperature sensor		
50	Bimetallic strip, Pyroelectric detectors		
51	Problems		
UNIT	**V: MAGNETISM & DIELECTRICS** **CO5: Explain the applications of dielectric and magnetic materials & Apply the concept of magnetism to magnetic devices.**		
52	**MAGNETISM**: Introduction	From: 30-11-2019	
53	Magnetic dipole momentum, Magnetization-		
54	Magnetic susceptibility and permeability		
55	Origin of permanent magnetic moment		
56	Bohr Magneton -Classification of magnetic materials (Dia, Para and Ferro)		
57	Soft and hard magnetic materials	To 21-12-2019	
58	Applications of Ferromagnetic material		
59	Problems		
60	**DIELECTRICS:** Introduction,		
61	Dielectric polarization		
62	Susceptibility and Dielectricconstant		
63	Types of polarizations: Electronic and Ionic (Quantitative		

64	Orientational polarizations		
65	Lorentz internal field		
66	Claussius_Mossoti equation-		
67	Loss, Breakdown and strength of dielectric materials		
68	Frequency dependence of polarization - Applications of dielectrics		
69	Problems		

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TENTATIVE LESSON PLAN: R19ES1101

Course Title: PROGRAMMING FOR PROBLEM SOLVING USING C (ES1101)		
Section : Sec A	Date : 26/8/2019	Page No : 01 of 03
Revision No : 00	Prepared By : CH SIVA RAJESH	Approved By : HOD

Tools: Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I	**Introduction to C language** **CO1: To learn about the computer systems, computing environments, developing of a computer program and Structure of a C Program.** **TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE**		
1	Computer Systems	26-8-19	Lecture Interspersed With discussions
2	Computing Environments	28-8-19	
3	Computer languages	29-8-19	
4	Creating and running Programs	30-8-19	
5	Computer Numbering System	30-8-19	
6	Storing Integers	31-8-19	
7	Storing Real Numbers	2-9-19	
8	C Programs, Identifiers	4-9-19	
9	Types, Variable	5-9-19	
10	Constants, Input/output	6-9-19	
11	Programming Examples	6-9-19	
12	Scope, Storage Classes and Type Qualifiers	7-9-19	
13	Expressions Precedence and Associativity	9-9-19	
14	Side Effects, Evaluating Expressions	12-9-19	
15	Type Conversion Statements	13-9-19	
16	Simple Programs	13-9-19	
17	Command Line Arguments	16-9-19	
18	**Tutorial**	16-9-19	
UNIT-II	**Operators, Selection and Repetition** **CO2: To gain knowledge of the operators, selection, control statements and repetition in C.** **TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE**		
19	Exact Size Integer Types	18-9-19	Lecture interspersed
20	Logical Bitwise Operators	19-9-19	
21	Shift Operators	20-9-19	
22	Logical Data and Operators	20-9-19	
23	Two Way Selection	21-9-19	
24	Multiway Selection	23-9-19	

25	More Standard Functions	25-9-19	with discussions
26	Concept of Loop	26-9-19	
27	Pretest and Post-test Loops	27-9-19	
28	Initialization and Updating	27-9-19	
29	Event and Counter Controlled Loops	28-9-19	
30	Loops in C	30-9-19	
31	Other Statements Related to Looping	3-10-19	
32	Looping Applications	4-10-19	
33	Programming Example The Calculator Program	4-10-19	
35	**Tutorial**	4-10-19	
No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**
UNIT-III Arrays, String, Enum, Structure, Unions			
CO3: To learn about the design concepts of arrays, strings, enumerated structure and union types. To learn about their usage.			
TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE			
36	Concepts, Using Array in C	5-10-19	Lecture interspersed with discussions
37	Array Application	14-10-19	
38	Two Dimensional Arrays	16-10-19	
39	Multidimensional Arrays	17-10-19	
40	Programming Example – Calculate Averages	18-10-19	
41	String Concepts, C String	18-10-19	
42	String Input / Output Functions	19-10-19	
43	Arrays of Strings	28-10-19	
44	String Manipulation Functions	30-10-19	
45	String/ Data Conversion	31-10-19	
46	A Programming Example – Morse Code	1-11-19	
47	The Type Definition (Type def)	1-11-19	
48	Enumerated Types	2-11-19	
49	Structure	4-11-19	
50	Unions	6-11-19	
51	Programming Application	7-11-19	
52	**Tutorial**	7-11-19	
UNIT-IV Pointers			
CO4: To assimilate about pointers, dynamic memory allocation and know the significance of Preprocessor.			
TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE			
No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**
53	Interdiction	8-11-19	
54	Pointers to pointers	8-11-19	
55	Compatibility, L value and R value	11-11-19	
56	Arrays, and Pointers	13-11-19	

57	Pointer Arithmetic and Arrays	14-11-19	Lecture interspersed with discussions
58	Memory Allocation Function	15-11-19	
59	Array of Pointers	15-11-19	
60	Programming Application	16-11-19	
61	Processor Commands	18-11-19	
62	**Tutorial**	18-11-19	
UNIT-V	**Files and Functions**		
CO5: To assimilate about File I/O and significance of functions.			
TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE			
63	Files, Streams	20-11-19	Lecture interspersed with discussions
64	Standard Library Input / Output Functions	21-11-19	
65	Formatting Input / Output Functions	22-11-19	
66	Character Input / Output Functions	22-11-19	
67	Text versus Binary Streams	23-11-19	
68	Functions for Files	25-11-19	
69	Converting File Type	27-11-19	
70	Designing, Structured Programs	28-11-19	
71	Function in C	29-11-19	
72	User Defined Functions	30-11-19	
73	Inter-Function Communication	2-12-19	
74	Standard Functions	4-12-19	
75	Passing Array to Functions	5-12-19	
76	Passing Pointers to Functions	6-12-19	
77	Recursion	11-12-19	
78	Passing an Array to Function	16-12-19	
79	**Tutorial**	18-12-19	

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TENTATIVE LESSON PLAN

Course Title: ENGINEERING DRAWING		Course Code: ES1103
Section : I	Date : 26/08/2019	Page No : 01 of 02
Revision No : 00	Prepared By : G. Durga Prasad	Approved By : HOD

Tools: Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I INTRODUCTION TO DRAWING			
CO1: Able to draw the polygons, curves.			
TB: "Engineering Drawing", by N.D. Butt &V.M. Panchal, Chariot Publishing House, Anand. 49th Edition – 2006.			
1	Introduction	30/08/2019	Lecture interspersed with discussions
2	Lettering and Dimensioning	05/09/2019	
3	Geometrical constructions	06/09/2019	
4	Parabola, Ellipse and Hyperbola	12/09/2019	
5	Polygons	13/09/2019	
6	Cycloids	19/09/2019	
7	Involutes	20/09/2019	
8	Vernier scales	26/09/2019	
9	Plain scales, diagonal scale	27/09/2019	
UNIT-II INTRODUCTION TO ORTHOGRAPHIC PROJECTIONS			
CO2: Able to draw the scales, projections of points and lines parallel to one plane and to other plan.			
TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.			
10	Projections of points in various quadrants	10/10/2019	Lecture interspersed with discussions
11	Projections of lines, lines parallel either of the reference planes	11/10/2019	
12	Determination of true lengths,	17/10/2019	
13	Angle of inclination and traces.	18/10/2019	
UNIT-III PROJECTIONS OF PLANES			
CO3: Able to draw the projections of lines inclined to both the planes and its traces.			
TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.			
14	Projection of plane (parallel to one plane and perpendicular to other plane)	31/10/2019	Lecture interspersed with discussions
15	Projection of plane (parallel to one plane and inclined to other plane)	01/11/2019	
16	Projection of plane (inclined to both plane)	07/11/2019	
17	Projection of plane (inclined to both plane)	08/11/2019	
UNIT-IV PROJECTIONS OF SOLIDS			
CO4: Able to identify the different plans and draw the projections of the plane inclined to both the planes.			
TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.			
18	Projections of Solids	14/11/2019	Lecture

19	Prisms, Pyramids	15/11/2019	interspersed with discussions
20	Cones with the axis inclined to both the planes	21/11/2019	
21	Cylinders with the axis inclined to both the planes	22/11/2019	
UNIT-V Conversion of isometric views to orthographic views **CO5: Able to identify the basic solids and draw the projections of the solids inclined to one of the planes.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
22	Isometric views to orthographic views	28/11/2019	Lecture interspersed with discussions
23	Orthographic views to isometric views.	29/11/2019	
24	Computer Aided Design	06/12/2019	
25	Drawing practice using Auto CAD	12/12/2019	
26	Creating 2D&3D drawings	13/12/2019	

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Date: 27/8/19

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Edition – 2015.
18 14/11 Projections of Solids
Edition – 2015.
18 14/11 Projections of Solids

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

I Year – I SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	HS1101	English	3	0	0	3
2	BS1101	Mathematics - I	3	0	0	3
3	BS1106	Applied Chemistry	3	0	0	3
4	ES1101	Programming for Problem Solving Using C	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1107	Applied Chemistry Lab	0	0	3	1.5
8	ES1102	Programming for Problem Solving Using C Lab	0	0	3	1.5
9	MC1101	Environmental Science	3	0	0	0
Total Credits			**16**	**0**	**12**	**19**

I Year – IISEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	BS1202	Mathematics – II	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1204	Applied Physics	3	0	0	3
4	ES1209	Network Analysis	3	0	0	3
5	ES1211	Basic Electrical Engineering	3	0	0	3
6	ES1215	Electronic workshop	0	0	2	1
7	ES1208	Basic Electrical Engineering Lab	0	0	3	1.5
8	BS1205	Applied Physics Lab	0	0	3	1.5
9	HS1203	Communication Skills Lab	0	0	2	1
10	PR1201	Engineering Exploration Project	0	0	2	1
			15	**0**	**12**	**21**

TENTATIVE LESSON PLAN: R19HS1101

Course Title: English HS1101		
Section : ECE-A	Date : 26-08-2019	Page No : 01 of 03
Revision No : 00	Prepared By: Mr. Yellamanda Vusa	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: A Drawer full of happiness, Deliverance by Premchand **CO1: Facilitate effective listening skills for better comprehension of academic lectures and English spoken by native speakers** **TB: —Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
1	**A Drawer full of happiness**	26-8-19	Lecture interspersed with discussions
2	**Listening : Short Audio Texts**	28-8-19	
3	**Speaking :** Asking and answering questions	30-8-19	
4	**Reading : Skimming and Scanning**	3-9-19	
5	**Reading for Writing :** Paragraph writing	3-9-19	
6	**Vocabulary :** Technical Vocabulary	4-9-19	
7	**Grammar :** Content words and function words	4-9-19	
8	The Deliverance : Munshi Prem Chand	5-9-19	
9	Long Answers	6-9-19	
10	Short Answers	9-9-19	
UNIT-II Nehru's letter to his daughter Indira on her birthday, Bosom Friend by Hira Bansode **CO2: Focus on appropriate reading strategies for comprehension of various academic texts and authentic materials** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
12	**Nehru's letter to his daughter Indira on her birthday**	11-9-19	Lecture interspersed
13	**Listening:** Answering a series of questions	12-9-19	
14	**Speaking:** Discussion in pairs	13-9-19	
15	**Reading**: Identifying sequence of ideas	16-9-19	

16	**Reading for Writing**: Summarizing	18-9-19	with discussions
17	**Vocabulary**: Technical vocabulary	19-9-19	
18	**Grammar**: Use of articles	20-9-19	
19	**Bosom Friend Hira Bansode**	23-9-19	
20	Long Answers	23-9-19	
21	Short Answers	25-9-19	
UNIT-III: Stephen Hawking-Positivity "Benchmark", Shakespeare's Sister by Virginia Woolf **CO3: Help improve speaking skills through participation in activities such as role plays, discussions and structured talks/oral presentations** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
24	**Stephen Hawking-Positivity 'Benchmark**	27-9-19	Lecture interspersed with discussions
25	**Listening:** Listening for global comprehension	30-9-19	
26	**Speaking:** Discussing specific topics in pairs	10-10-19	
27	**Reading**: Reading a text in detail	14-10-19	
28	**Reading for Writing**: Summarizing	15-10-19	
29	**Vocabulary**: Technical vocabulary	16-10-19	
30	**Grammar**: Verbs - tenses; subject-verb agreement	4-11-19	
31	**Shakespeare's Sister by Virginia Woolf**	7-11-19	
32	Long Answers	8-11-19	
UNIT IV Liking a Tree, Unbowed: Wangari Maathai, Telephone Conversation-Wole Soyinka **CO4: Impart effective strategies for good writing and demonstrate the same in summarizing, writing well organized essays, record and report useful information.** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
33	**Like a Tree, Unbowed: Wangari Maathai-biography**	14-11-19	Lecture interspersed with
34	**Listening:** Making predictions while listening	15-11-19	
35	**Speaking:** Role plays for practice of conversational	18-11-19	

	English		discussions
36	**Reading**: Studying the use of graphic elements	20-11-19	
37	**Reading for Writing**: Information transfer	21-11-19	
38	**Vocabulary**: Technical vocabulary	23-11-19	
39	**Grammar**: Quantifying expressions	27-11-19	
40	Telephone Conversation: Wole Soyinka	28-11-19	
UNIT-V: Stay Hungry-Stay foolish, Still I Rise by Maya Angelou			
CO5: Provide knowledge of grammatical structures and vocabulary and encourage their appropriate use in speech and writing			
TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications			
41	**Stay Hungry-Stay foolish**	4-12-19	
42	**Listening** Identifying key terms	5-12-19	Lecture interspersed with discussions
43	**Speaking:** Formal oral presentations	6-12-19	
44	**Reading**: Reading for comprehension	9-12-19	
45	**Reading for Writing**: Writing academic proposals	12-12-19	
46	**Vocabulary**: Technical vocabulary	13-12-19	
47	**Grammar**: Editing short texts	16-12-19	

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TENTATIVE LESSON PLAN: R19HS1101

Course Title: English HS1101		
Section : ECE-B	Date : 26-08-2019	Page No : 01 of 03
Revision No : 00	Prepared By: Mr. Yellamanda Vusa	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: A Drawer full of happiness, Deliverance by Premchand **CO1: Facilitate effective listening skills for better comprehension of academic lectures and English spoken by native speakers** **TB: —Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
1	**A Drawer full of happiness**	26-8-19	Lecture interspersed with discussions
2	**Listening : Short Audio Texts**	28-8-19	
3	**Speaking :** Asking and answering questions	30-8-19	
4	**Reading : Skimming and Scanning**	3-9-19	
5	**Reading for Writing :** Paragraph writing	3-9-19	
6	**Vocabulary :** Technical Vocabulary	4-9-19	
7	**Grammar :** Content words and function words	4-9-19	
8	The Deliverance : Munshi Prem Chand	5-9-19	
9	Long Answers	6-9-19	
10	Short Answers	9-9-19	
UNIT-II Nehru's letter to his daughter Indira on her birthday, Bosom Friend by Hira Bansode **CO2: Focus on appropriate reading strategies for comprehension of various academic texts and authentic materials** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
12	**Nehru's letter to his daughter Indira on her birthday**	11-9-19	Lecture interspersed
13	**Listening:** Answering a series of questions	12-9-19	
14	**Speaking:** Discussion in pairs	13-9-19	
15	**Reading**: Identifying sequence of ideas	16-9-19	

16	**Reading for Writing**: Summarizing	18-9-19	with discussions
17	**Vocabulary**: Technical vocabulary	19-9-19	
18	**Grammar**: Use of articles	20-9-19	
19	**Bosom Friend Hira Bansode**	23-9-19	
20	Long Answers	23-9-19	
21	Short Answers	25-9-19	
UNIT-III: Stephen Hawking-Positivity "Benchmark", Shakespeare's Sister by Virginia Woolf **CO3: Help improve speaking skills through participation in activities such as role plays, discussions and structured talks/oral presentations** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
24	**Stephen Hawking-Positivity 'Benchmark**	27-9-19	Lecture interspersed with discussions
25	**Listening:** Listening for global comprehension	30-9-19	
26	**Speaking:** Discussing specific topics in pairs	10-10-19	
27	**Reading**: Reading a text in detail	14-10-19	
28	**Reading for Writing**: Summarizing	15-10-19	
29	**Vocabulary**: Technical vocabulary	16-10-19	
30	**Grammar**: Verbs - tenses; subject-verb agreement	4-11-19	
31	**Shakespeare's Sister by Virginia Woolf**	7-11-19	
32	Long Answers	8-11-19	
UNIT IV Liking a Tree, Unbowed: Wangari Maathai, Telephone Conversation-Wole Soyinka **CO4: Impart effective strategies for good writing and demonstrate the same in summarizing, writing well organized essays, record and report useful information.** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
33	**Like a Tree, Unbowed: Wangari Maathai-biography**	14-11-19	Lecture interspersed with
34	**Listening:** Making predictions while listening	15-11-19	
35	**Speaking:** Role plays for practice of conversational	18-11-19	

	English		discussions
36	**Reading**: Studying the use of graphic elements	20-11-19	
37	**Reading for Writing**: Information transfer	21-11-19	
38	**Vocabulary**: Technical vocabulary	23-11-19	
39	**Grammar**: Quantifying expressions	27-11-19	
40	Telephone Conversation: Wole Soyinka	28-11-19	
UNIT-V: Stay Hungry-Stay foolish, Still I Rise by Maya Angelou **CO5: Provide knowledge of grammatical structures and vocabulary and encourage their appropriate use in speech and writing** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
41	**Stay Hungry-Stay foolish**	4-12-19	Lecture interspersed with discussions
42	**Listening** Identifying key terms	5-12-19	
43	**Speaking:** Formal oral presentations	6-12-19	
44	**Reading**: Reading for comprehension	9-12-19	
45	**Reading for Writing**: Writing academic proposals	12-12-19	
46	**Vocabulary**: Technical vocabulary	13-12-19	
47	**Grammar**: Editing short texts	16-12-19	

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TENTATIVE LESSON PLAN: R19BS1101

Course Title: MATHEMATICS - 1		
Section : ECE – A	Date : 26-08-2019	Page No : 01 of 02
Revision No : 00	Prepared By : B.V.RAMAKRISHNA RAO	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: SEQUENCES, SERIES AND MEAN VALUE THEOREMS **CO1: utilize mean value theorems to real life problems** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
1	SEQUENCES AND SERIES: Convergence and Divergence	From: 26-08-2019 To: 14-09-2019	Lecture interspersed with discussions
2	Ratio test		
3	Comparison test		
4	Integral test		
5	Cauchy 's root test		
6	Alternating series		
7	Leibnitz 's rule		
8	Mean Value Theorems: Rolle 's Theorem		
9	Lagrange 's mean value theorem		
10	Cauchy 's mean value theorem		
11	Taylor 's and Maclaurin 's theorems with remainders		
UNIT-II DIFFERENTIAL EQUATIONS OF FIRST ORDER AND FIRST DEEGREE **CO2: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
12	Introduction: Differential Equations of First order first degree	From: 16-09-2019 To: 05-10-2019	Lecture interspersed with discussions
13	Exact Equations – Conditions of Exactness		
14	Equations reducible to Exact		
15	Non Exact Differential Equations		
16	Linear Differential Equations of first order		
17	Bernouli Equation		
18	Equations reducible to linear		
19	Orthogonal Trajectories - Cartesian		
20	Orthogonal Trajectories - Polar		
21	Newton's law of cooling		
22	Natural growth or decay		
23	Electrical Circuits		

UNIT-III : LINEAR DIFFERENTIAL EQUATIONS OF HIGHER ORDER **CO3: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
24	Linear DE of constant coefficients	From: 07-10-2019 To: 19-10-2019 & From: 28-10-2019 To: 09-11-2019	Lecture interspersed with discussions
25	Solutions of $f(D) = Q(x), Q(x) = e^{ax}$		
26	$Q(x) = \sin ax \ or \ \cos ax$		
27	$Q(x) = x^n$		
28	$Q(x) = e^{ax}V(x)$		
29	$Q(x) = xV(x)$		
30	$Q(x) = x^n \sin ax \ or \ \cos ax$		
31	Method of variation of parameters		
32	Applications: LCR Circuit		
UNIT-IV PARTIAL DIFFERENTIATION **CO4: Familirize with functions of several variables which is useful in optimization** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
33	Homogeneous function; Euler's Theorem	From: 11-11-2019 To: 30-11-2019	Lecture interspersed with discussions
34	Total Derivative; Chain rule		
35	Taylor's mean value theorems		
36	Maclaurin's series		
37	Jacobians, formulae		
38	Functional dependence		
39	Maxima minima of two variables		
40	Langranges method		
UNIT-V: MULTIPLE INTEGRALS **CO5: Apply double integration techniques in evaluating areas bounded by region** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
41	Introduction	From: 02-12-2019. To: 21-12-2019	Lecture interspersed with discussions
42	Double integrals		
43	Triple integrals		
44	Change of order of integration		
45	Change of variable		
46	Applications: Finding areas		
47	Finding volumes		

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TENTATIVE LESSON PLAN: R19BS1101

Course Title: MATHEMATICS - 1		
Section : ECE – B	Date : 26-08-2019	Page No : 01 of 02
Revision No : 00	Prepared By : S.KALPANA	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: SEQUENCES, SERIES AND MEAN VALUE THEOREMS **CO1:utilize mean value theorems to real life problems** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
1	SEQUENCES AND SERIES: Convergence and Divergence	From: 26-08-2019 To: 14-09-2019	Lecture interspersed with discussions
2	Ratio test		
3	Comparison test		
4	Integral test		
5	Cauchy 's root test		
6	Alternating series		
7	Leibnitz 's rule		
8	Mean Value Theorems: Rolle 's Theorem		
9	Lagrange 's mean value theorem		
10	Cauchy 's mean value theorem		
11	Taylor 's and Maclaurin 's theorems with remainders		
UNIT-II DIFFERENTIAL EQUATIONS OF FIRST ORDER AND FIRST DEEGREE **CO2: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
12	Introduction: Differential Equations of First order first degree	From: 16-09-2019 To: 05-10-2019	Lecture interspersed with discussions
13	Exact Equations – Conditions of Exactness		
14	Equations reducible to Exact		
15	Non Exact Differential Equations		
16	Linear Differential Equations of first order		
17	Bernouli Equation		
18	Equations reducible to linear		
19	Orthogonal Trajectories - Cartesian		
20	Orthogonal Trajectories - Polar		
21	Newton's law of cooling		
22	Natural growth or decay		
23	Electrical Circuits		

UNIT-III : LINEAR DIFFERENTIAL EQUATIONS OF HIGHER ORDER **CO3: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
24	Linear DE of constant coefficients	From: 07-10-2019 To: 19-10-2019 & From: 28-10-2019 To: 09-11-2019	Lecture interspersed with discussions
25	Solutions of $f(D) = Q(x), Q(x) = e^{ax}$		
26	$Q(x) = \sin ax \ or \ \cos ax$		
27	$Q(x) = x^n$		
28	$Q(x) = e^{ax}V(x)$		
29	$Q(x) = xV(x)$		
30	$Q(x) = x^n \sin ax \ or \ \cos ax$		
31	Method of variation of parameters		
32	Applications: LCR Circuit		
UNIT-IV PARTIAL DIFFERENTIATION **CO4: Familirize with functions of several variables which is useful in optimization** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
33	Homogeneous function; Euler's Theorem	From: 11-11-2019 To: 30-11-2019	Lecture interspersed with discussions
34	Total Derivative; Chain rule		
35	Taylor's mean value theorems		
36	Maclaurin's series		
37	Jacobians, formulae		
38	Functional dependence		
39	Maxima minima of two variables		
40	Langranges method		
UNIT-V: MULTIPLE INTEGRALS **CO5: Apply double integration techniques in evaluating areas bounded by region** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
41	Introduction	From: 02-12-2019. To: 21-12-2019	Lecture interspersed with discussions
42	Double integrals		
43	Triple integrals		
44	Change of order of integration		
45	Change of variable		
46	Applications: Finding areas		
47	Finding volumes		

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Department of Science and Humanities

TENTATIVE LESSON PLAN: APPLIED CHEMISTRY (BS1106)

Course Title: B.Tech			
Section : ECE-A	Date : 26-8- 2019		Page No : 1-3
Revision No :00	Prepared By : K.P.T.VIJAYA BHASKAR		Approved By : HOD
Tools: Black board and chalk.			
No. of Periods: 75	TOPIC	Date	Mode of Delivery
Unit -II :ELECTROCHEMICAL CELLS AND CORROSION			
CO2: Outline the basics for the construction of electrochemicalcells, batteries and fuelcells. Understand the mechanism of corrosion and how it can be prevented. (Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)			
1	**Unit -II :ELECTROCHEMICAL CELLS**	26-8-2019	Lecture interspersed with discussions
2	Single electrode potentia.	26-8-2019	
3	Electrochemical series and uses of series	27-8-2019	
4	standard hydrogen electrode, calomel electrode	28-8-2019	
5	concentration cell-	30-8-2019	
6	construction of glass electrode	3-9-2019	
7	Batteries: Dry cell, Ni-Cd cells,	4-9-2019	
8	Ni Metal hydride cells, Li ion battery, zinc air cells	5-9-2019	
9	Fuel cells: H2-O2, CH3OH-O2,	6-9-2019	
10	phosphoric acid, molten carbonate	9-9-2019	
11	**Corrosion:**-Definition-theories of corrosion	9-9-2019	
12	galvanic corrosion, differential aeration corrosion, stress corrosion,	9-9-2019	
13	waterline corrosion-passivity of metals-galvanic series	11-9-2019	
14	Factors influencing rate of corrosion-corrosion control	13-9-2019	
15	Protective coatings: Surface preparation, cathodic	16-9-2019	
16	Anodic coatings, electroplating, electroless plating (nickel).	17-9-2019-	
17	Paints (constituents, functions, special paints).	18-9-2019	
Unit – I: POLYMER TECHNOLOGY			
CO1: Importance of usage of plastics in household appliances and composites(FRP) in aerospace and automotive industries. (Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)			
1	Polymerisation:- Introduction-methods of polymerization	23-9-2019	
2	physical and mechanical properties.	23-9-2019	

3	Plastics: Compounding-fabrication	24-9-2019	Lecture interspersed with discussions
4	preparation, properties and applications of PVC,	25-9-2019	
5	polycarbonates and Bakelite-mention some examples of plastic.	26-9-2019	
6	Materials used in electronic gadgets, recycling of e-plastic waste	26-9-2019	
7	Elastomers:- Natural rubber-drawbacks-vulcanization	26-9-2019	
8	preparation, properties and applications of synthetic rubbers	27-9-2019	
9	(Buna S, thiokol and polyurethanes	27-9-2019	
10	Composite materials: Fiber reinforced plastics-.	28-9-2019	
11	Conducting polymers-	30-9-2019	
12	Biodegradable polymers biopolymers	30-9-2019	
13	Biomedical polymers	11-10-2019	

UNIT III: MATERIAL CHEMISTRY

CO3: Explain the preparation of semiconductors and nanomaterials, engineering applications of nanomaterials, superconductors and liquidcrystals.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1	**Part I : Non-elemental semiconducting materials**	14-10-2019	Lecture interspersed with discussions
2	Semiconductor devices (p-n junction diode as rectifier, junction transistor	15-10-2019	
3	Insulators & magnetic materials: electrical insulators	16-10-2019	
4	Ferro and ferri magnetism-Hall effect and its applications.	17-10-2019	
5	**Part II: Nano materials**:- Introduction-sol-gel method-	18-10-2019	
6	characterization by BET, SEM and TEM methods	24-10-2019	
7	Applications of graphene-carbon nanotubes and fullerenes:	5-11-2019	
8	Types, preparation and applications Liquid crystals	6-11-2019	
9	Introduction-types-applications. Super conductors:-Type –I, Type II-characteristics and applications.	7-11-2019	

UNIT IV: ADVANCED CONCEPTS/TOPICS IN CHEMISTRY

C04: Outline the basics of computational chemistry and molecular switches.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1	Computational chemistry: Introduction, Ab Initio studies Molecular switches	10-11-2019	

2.	characteristics of molecular motors and machines, Rotaxanes	12-11-2019	Lecture interspersed with discussions
3.	Catenanes as artificial molecular machines, prototypes	18-11-2019	
4.	linear motions in rotaxanes, an acid-base controlled molecular shuttle	18-11-2019	
5.	a molecular elevator,	19-11-2019	
6.	an autonomous light-powered molecular motor	20-11-2019	
7.	Computational chemistry: Introduction, Ab Initio studies Molecular switches	21-11-2019	
8.	characteristics of molecular motors and machines,	22-11-2019	

UNIT V: SPECTROSCOPIC TECHNIQUES & NON CONVENTIONAL ENERGY SOURCES

CO5: Recall the increase in demand for power and hence alternative sources of power are studied due to depleting sources of fossil fuels. Advanced instrumental techniques are introduced.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1.	**Part A: SPECTROSCOPIC TECHNIQUES** Electromagnetic spectrum-UV	29-11-2019	Lecture interspersed with discussions
2.	laws of absorption, instrumentation,	2-12-2019	
3	Theory of electronic spectroscopy, Frank-condon principle	3-12-2019	
4.	chromophores and auxochromes, intensity shifts, applications	4-12-2019	
5.	FT-IR (instrumentation and IR of some organic compounds, applications).	5-12-2019	
6.	Magnetic resonance imaging and CT scan (procedure & applications).	6-12-2019	
7.	**Part B: NON CONVENTIONAL ENERGY SOURCES**	9-12-2019	
8.	Design, working, schematic diagram, advantages and disadvantages of photovoltaic cell,	10-12-2019	
9.	hydropower, geothermal power,	11-12-2019 12-12-2019	
10.	Tidal and wave power	17-12-2019	

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(ISO 9001:2015 Certified Institution)
Department of Science and Humanities

TENTATIVE LESSON PLAN: APPLIED CHEMISTRY (BS1106)

Course Title: B.Tech			
Section : ECE-B	Date : 26-8- 2019	Page No : 1-3	
Revision No :00	Prepared By : K.P.T.VIJAYA BHASKAR	Approved By : HOD	
Tools: Black board and chalk.			

No. of Periods: 75	TOPIC	Date	Mode of Delivery
	Unit -II :ELECTROCHEMICAL CELLS AND CORROSION		
	CO2: Outline the basics for the construction of electrochemicalcells, batteries and fuelcells. Understand the mechanism of corrosion and how it can be prevented.		
	(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)		
1	**Unit -II :ELECTROCHEMICAL CELLS**	26-8-2019	Lecture interspersed with discussions
2	Single electrode potentia.	26-8-2019	
3	Electrochemical series and uses of series	27-8-2019	
4	standard hydrogen electrode, calomel electrode	28-8-2019	
5	concentration cell-	30-8-2019	
6	construction of glass electrode	3-9-2019	
7	Batteries: Dry cell, Ni-Cd cells,	4-9-2019	
8	Ni Metal hydride cells, Li ion battery, zinc air cells	5-9-2019	
9	Fuel cells: H2-O2, CH3OH-O2,	6-9-2019	
10	phosphoric acid, molten carbonate	9-9-2019	
11	**Corrosion:**-Definition-theories of corrosion	9-9-2019	
12	galvanic corrosion, differential aeration corrosion, stress corrosion,	9-9-2019	
13	waterline corrosion-passivity of metals-galvanic series	11-9-2019	
14	Factors influencing rate of corrosion-corrosion control	13-9-2019	
15	Protective coatings: Surface preparation, cathodic	16-9-2019	
16	Anodic coatings, electroplating, electroless plating (nickel).	17-9-2019-	
17	Paints (constituents, functions, special paints).	18-9-2019	
	Unit – I: POLYMER TECHNOLOGY		
	CO1: Importance of usage of plastics in household appliances and composites(FRP) in aerospace and automotive industries.		
	(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)		
1	Polymerisation:- Introduction-methods of polymerization	23-9-2019	
2	physical and mechanical properties.	23-9-2019	

3	Plastics: Compounding-fabrication	24-9-2019	Lecture interspersed with discussions
4	preparation, properties and applications of PVC,	25-9-2019	
5	polycarbonates and Bakelite-mention some examples of plastic.	26-9-2019	
6	Materials used in electronic gadgets, recycling of e-plastic waste	26-9-2019	
7	Elastomers:- Natural rubber-drawbacks-vulcanization	26-9-2019	
8	preparation, properties and applications of synthetic rubbers	27-9-2019	
9	(Buna S, thiokol and polyurethanes	27-9-2019	
10	Composite materials: Fiber reinforced plastics-.	28-9-2019	
11	Conducting polymers-	30-9-2019	
12	Biodegradable polymers biopolymers	30-9-2019	
13	Biomedical polymers	11-10-2019	

UNIT III: MATERIAL CHEMISTRY

CO3: Explain the preparation of semiconductors and nanomaterials, engineering applications of nanomaterials, superconductors and liquidcrystals.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1	**Part I : Non-elemental semiconducting materials**	14-10-2019	Lecture interspersed with discussions
2	Semiconductor devices (p-n junction diode as rectifier, junction transistor	15-10-2019	
3	Insulators & magnetic materials: electrical insulators	16-10-2019	
4	Ferro and ferri magnetism-Hall effect and its applications.	17-10-2019	
5	**Part II: Nano materials**:- Introduction-sol-gel method-	18-10-2019	
6	characterization by BET, SEM and TEM methods	24-10-2019	
7	Applications of graphene-carbon nanotubes and fullerenes:	5-11-2019	
8	Types, preparation and applications Liquid crystals	6-11-2019	
9	Introduction-types-applications. Super conductors:-Type –I, Type II-characteristics and applications.	7-11-2019	

UNIT IV: ADVANCED CONCEPTS/TOPICS IN CHEMISTRY

C04: Outline the basics of computational chemistry and molecular switches.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1	Computational chemistry: Introduction, Ab Initio studies Molecular switches	10-11-2019	

3.	Catenanes as artificial molecular machines, prototypes	18-11-2019	Lecture interspersed with discussions
4.	linear motions in rotaxanes, an acid-base controlled molecular shuttle	18-11-2019	
5.	a molecular elevator,	19-11-2019	
6.	an autonomous light-powered molecular motor	20-11-2019	
7.	Computational chemistry: Introduction, Ab Initio studies Molecular switches	21-11-2019	
8.	characteristics of molecular motors and machines,	22-11-2019	

UNIT V: SPECTROSCOPIC TECHNIQUES & NON CONVENTIONAL ENERGY SOURCES.

CO5: Recall the increase in demand for power and hence alternative sources of power are studied due to depleting sources of fossil fuels. Advanced instrumental techniques are introduced.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1..	**Part A: SPECTROSCOPIC TECHNIQUES** Electromagnetic spectrum-UV	29-11-2019	Lecture interspersed with discussions
2.	laws of absorption, instrumentation,	2-12-2019	
3	Theory of electronic spectroscopy, Frank-condon principle	3-12-2019	
4.	chromophores and auxochromes, intensity shifts, applications	4-12-2019	
5.	FT-IR (instrumentation and IR of some organic compounds, applications).	5-12-2019	
6.	Magnetic resonance imaging and CT scan (procedure & applications).	6-12-2019	
7.	**Part B: NON CONVENTIONAL ENERGY SOURCES**	9-12-2019	
8.	Design, working, schematic diagram, advantages and disadvantages of photovoltaic cell,	10-12-2019	
9.	hydropower, geothermal power,	11-12-2019 12-12-2019	
10.	Tidal and wave power	17-12-2019	

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TENTATIVE LESSON PLAN: R19ES1101

Course Title: PROGRAMMING FOR PROBLEM SOLVING USING C (ES1101)		
Section : Sec A	Date : 26/8/2019	Page No : 01 of 03
Revision No : 00	Prepared By : CH SIVA RAJESH	Approved By : HOD

Tools: Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I	**Introduction to C language** **CO1: To learn about the computer systems, computing environments, developing of a computer program and Structure of a C Program.** **TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE**		
1	Computer Systems	26-8-19	Lecture Interspersed With discussions
2	Computing Environments	28-8-19	
3	Computer languages	29-8-19	
4	Creating and running Programs	30-8-19	
5	Computer Numbering System	30-8-19	
6	Storing Integers	31-8-19	
7	Storing Real Numbers	2-9-19	
8	C Programs, Identifiers	4-9-19	
9	Types, Variable	5-9-19	
10	Constants, Input/output	6-9-19	
11	Programming Examples	6-9-19	
12	Scope, Storage Classes and Type Qualifiers	7-9-19	
13	Expressions Precedence and Associativity	9-9-19	
14	Side Effects, Evaluating Expressions	12-9-19	
15	Type Conversion Statements	13-9-19	
16	Simple Programs	13-9-19	
17	Command Line Arguments	16-9-19	
18	**Tutorial**	16-9-19	
UNIT-II	**Operators, Selection and Repetition** **CO2: To gain knowledge of the operators, selection, control statements and repetition in C.** **TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE**		
19	Exact Size Integer Types	18-9-19	Lecture interspersed
20	Logical Bitwise Operators	19-9-19	
21	Shift Operators	20-9-19	
22	Logical Data and Operators	20-9-19	
23	Two Way Selection	21-9-19	
24	Multiway Selection	23-9-19	

25	More Standard Functions	25-9-19	with discussions
26	Concept of Loop	26-9-19	
27	Pretest and Post-test Loops	27-9-19	
28	Initialization and Updating	27-9-19	
29	Event and Counter Controlled Loops	28-9-19	
30	Loops in C	30-9-19	
31	Other Statements Related to Looping	3-10-19	
32	Looping Applications	4-10-19	
33	Programming Example The Calculator Program	4-10-19	
35	**Tutorial**	4-10-19	
No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**
UNIT-III	**Arrays, String, Enum, Structure, Unions**		
CO3: To learn about the design concepts of arrays, strings, enumerated structure and union types. To learn about their usage.			
TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE			
36	Concepts, Using Array in C	5-10-19	Lecture interspersed with discussions
37	Array Application	14-10-19	
38	Two Dimensional Arrays	16-10-19	
39	Multidimensional Arrays	17-10-19	
40	Programming Example – Calculate Averages	18-10-19	
41	String Concepts, C String	18-10-19	
42	String Input / Output Functions	19-10-19	
43	Arrays of Strings	28-10-19	
44	String Manipulation Functions	30-10-19	
45	String/ Data Conversion	31-10-19	
46	A Programming Example – Morse Code	1-11-19	
47	The Type Definition (Type def)	1-11-19	
48	Enumerated Types	2-11-19	
49	Structure	4-11-19	
50	Unions	6-11-19	
51	Programming Application	7-11-19	
52	**Tutorial**	7-11-19	
UNIT-IV	**Pointers**		
CO4: To assimilate about pointers, dynamic memory allocation and know the significance of Preprocessor.			
TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE			
No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**
53	Interdiction	8-11-19	
54	Pointers to pointers	8-11-19	
55	Compatibility, L value and R value	11-11-19	
56	Arrays, and Pointers	13-11-19	

57	Pointer Arithmetic and Arrays	14-11-19	Lecture interspersed with discussions
58	Memory Allocation Function	15-11-19	
59	Array of Pointers	15-11-19	
60	Programming Application	16-11-19	
61	Processor Commands	18-11-19	
62	**Tutorial**	18-11-19	
UNIT-V	**Files and Functions**		
CO5: To assimilate about File I/O and significance of functions.			
TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE			
63	Files, Streams	20-11-19	
64	Standard Library Input / Output Functions	21-11-19	
65	Formatting Input / Output Functions	22-11-19	
66	Character Input / Output Functions	22-11-19	
67	Text versus Binary Streams	23-11-19	
68	Functions for Files	25-11-19	
69	Converting File Type	27-11-19	Lecture interspersed with discussions
70	Designing, Structured Programs	28-11-19	
71	Function in C	29-11-19	
72	User Defined Functions	30-11-19	
73	Inter-Function Communication	2-12-19	
74	Standard Functions	4-12-19	
75	Passing Array to Functions	5-12-19	
76	Passing Pointers to Functions	6-12-19	
77	Recursion	11-12-19	
78	Passing an Array to Function	16-12-19	
79	**Tutorial**	18-12-19	

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TENTATIVE LESSON PLAN: R19ES1101

Course Title: PROGRAMMING FOR PROBLEM SOLVING USING C (ES1101)		
Section : Sec B	Date : 26/8/2019	Page No : 01 of 03
Revision No : 00	Prepared By : CH SIVA RAJESH	Approved By : HOD

Tools: Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I	**Introduction to C language** **CO1: To learn about the computer systems, computing environments, developing of a computer program and Structure of a C Program.** **TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE**		
1	Computer Systems	26-8-19	Lecture Interspersed With discussions
2	Computing Environments	28-8-19	
3	Computer languages	29-8-19	
4	Creating and running Programs	30-8-19	
5	Computer Numbering System	30-8-19	
6	Storing Integers	31-8-19	
7	Storing Real Numbers	2-9-19	
8	C Programs, Identifiers	4-9-19	
9	Types, Variable	5-9-19	
10	Constants, Input/output	6-9-19	
11	Programming Examples	6-9-19	
12	Scope, Storage Classes and Type Qualifiers	7-9-19	
13	Expressions Precedence and Associativity	9-9-19	
14	Side Effects, Evaluating Expressions	12-9-19	
15	Type Conversion Statements	13-9-19	
16	Simple Programs	13-9-19	
17	Command Line Arguments	16-9-19	
18	**Tutorial**	16-9-19	
UNIT-II	**Operators, Selection and Repetition** **CO2: To gain knowledge of the operators, selection, control statements and repetition in C.** **TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE**		
19	Exact Size Integer Types	18-9-19	Lecture interspersed
20	Logical Bitwise Operators	19-9-19	
21	Shift Operators	20-9-19	
22	Logical Data and Operators	20-9-19	
23	Two Way Selection	21-9-19	
24	Multiway Selection	23-9-19	

25	More Standard Functions	25-9-19	with discussions
26	Concept of Loop	26-9-19	
27	Pretest and Post-test Loops	27-9-19	
28	Initialization and Updating	27-9-19	
29	Event and Counter Controlled Loops	28-9-19	
30	Loops in C	30-9-19	
31	Other Statements Related to Looping	3-10-19	
32	Looping Applications	4-10-19	
33	Programming Example The Calculator Program	4-10-19	
35	**Tutorial**	4-10-19	
No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**

UNIT-III Arrays, String, Enum, Structure, Unions

CO3: To learn about the design concepts of arrays, strings, enumerated structure and union types. To learn about their usage.

TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE

36	Concepts, Using Array in C	5-10-19	Lecture interspersed with discussions
37	Array Application	14-10-19	
38	Two Dimensional Arrays	16-10-19	
39	Multidimensional Arrays	17-10-19	
40	Programming Example – Calculate Averages	18-10-19	
41	String Concepts, C String	18-10-19	
42	String Input / Output Functions	19-10-19	
43	Arrays of Strings	28-10-19	
44	String Manipulation Functions	30-10-19	
45	String/ Data Conversion	31-10-19	
46	A Programming Example – Morse Code	1-11-19	
47	The Type Definition (Type def)	1-11-19	
48	Enumerated Types	2-11-19	
49	Structure	4-11-19	
50	Unions	6-11-19	
51	Programming Application	7-11-19	
52	**Tutorial**	7-11-19	

UNIT-IV Pointers

CO4: To assimilate about pointers, dynamic memory allocation and know the significance of Preprocessor.

TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE

No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**
53	Introduction	8-11-19	
54	Pointers to pointers	8-11-19	
55	Compatibility, L value and R value	11-11-19	
56	Arrays, and Pointers	13-11-19	

57	Pointer Arithmetic and Arrays	14-11-19	Lecture interspersed with discussions
58	Memory Allocation Function	15-11-19	
59	Array of Pointers	15-11-19	
60	Programming Application	16-11-19	
61	Processor Commands	18-11-19	
62	**Tutorial**	18-11-19	
UNIT-V	**Files and Functions**		
CO5: To assimilate about File I/O and significance of functions.			
TB1: Programming for Problem Solving, Behrouz A. Forouzan, Richard F.Gilberg, CENGAGE			
63	Files, Streams	20-11-19	Lecture interspersed with discussions
64	Standard Library Input / Output Functions	21-11-19	
65	Formatting Input / Output Functions	22-11-19	
66	Character Input / Output Functions	22-11-19	
67	Text versus Binary Streams	23-11-19	
68	Functions for Files	25-11-19	
69	Converting File Type	27-11-19	
70	Designing, Structured Programs	28-11-19	
71	Function in C	29-11-19	
72	User Defined Functions	30-11-19	
73	Inter-Function Communication	2-12-19	
74	Standard Functions	4-12-19	
75	Passing Array to Functions	5-12-19	
76	Passing Pointers to Functions	6-12-19	
77	Recursion	11-12-19	
78	Passing an Array to Function	16-12-19	
79	**Tutorial**	18-12-19	

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ECE - A

TENTATIVE LESSON PLAN

Course Title: ENGINEERING DRAWING		Course Code: ES1103
Section : I	Date : 26/08/2019	Page No : 01 of 02
Revision No : 00	Prepared By : G. Durga Prasad	Approved By : HOD

Tools: Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I INTRODUCTION TO DRAWING			
CO1: Able to draw the polygons, curves.			
TB: "Engineering Drawing", by N.D. Butt &V.M. Panchal, Chariot Publishing House, Anand. 49th Edition – 2006.			
1	Introduction	27/08/2019	Lecture interspersed with discussions
2	Lettering and Dimensioning	28/08/2019	
3	Geometrical constructions	03/09/2019	
4	Parabola, Ellipse and |Hyperbola	04/09/2019	
5	Polygons	17/09/2019	
6	Cycloids	18/09/2019	
7	Involutes	21/09/2019	
8	Vernier scales	24/09/2019	
9	Plain scales, diagonal scale	25/09/2019	
UNIT-II INTRODUCTION TO ORTHOGRAPHIC PROJECTIONS			
CO2: Able to draw the scales, projections of points and lines parallel to one plane and to other plan.			
TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.			
10	Projections of points in various quadrants	28/09/2019	Lecture interspersed with discussions
11	Projections of lines, lines parallel either of the reference planes	01/10/2019	
12	Determination of true lengths,	15/10/2019	
13	Angle of inclination and traces.	16/10/2019	
UNIT-III PROJECTIONS OF PLANES			
CO3: Able to draw the projections of lines inclined to both the planes and its traces.			
TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.			
14	Projection of plane (parallel to one plane and perpendicular to other plane)	19/10/2019	Lecture interspersed with discussions
15	Projection of plane (parallel to one plane and inclined to other plane)	29/10/2019	
16	Projection of plane (inclined to both plane)	30/10/2019	
17	Projection of plane (inclined to both plane)	06/11/2019	
UNIT-IV PROJECTIONS OF SOLIDS			
CO4: Able to identify the different plans and draw the projections of the plane inclined to both the planes.			
TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.			
18	Projections of Solids	12/11/2019	Lecture

19	Prisms, Pyramids	19/11/2019	interspersed with discussions
20	Cones with the axis inclined to both the planes	20/11/2019	
21	Cylinders with the axis inclined to both the planes	26/11/2019	
UNIT-V Conversion of isometric views to orthographic views **CO5: Able to identify the basic solids and draw the projections of the solids inclined to one of the planes.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
22	Isometric views to orthographic views	27/11/2019	Lecture interspersed with discussions
23	Orthographic views to isometric views.	03/12/2019	
24	Computer Aided Design	04/12/2019	
25	Drawing practice using Auto CAD	10/12/2019	
26	Creating 2D&3D drawings	11/12/2019	

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ECE-B

TENTATIVE LESSON PLAN

Course Title: ENGINEERING DRAWING		Course Code: ES1103
Section : I	Date : 26/08/2019	Page No : 01 of 02
Revision No : 00	Prepared By : G. Durga Prasad	Approved By : HOD

Tools: Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I	**INTRODUCTION TO DRAWING**		
CO1: Able to draw the polygons, curves.			
TB: "Engineering Drawing", by N.D. Butt &V.M. Panchal, Chariot Publishing House, Anand. 49th Edition – 2006.			
1	Introduction	30/08/2019	Lecture interspersed with discussions
2	Lettering and Dimensioning	05/09/2019	
3	Geometrical constructions	06/09/2019	
4	Parabola, Ellipse and |Hyperbola	12/09/2019	
5	Polygons	13/09/2019	
6	Cycloids	19/09/2019	
7	Involutes	20/09/2019	
8	Vernier scales	26/09/2019	
9	Plain scales, diagonal scale	27/09/2019	
UNIT-II	**INTRODUCTION TO ORTHOGRAPHIC PROJECTIONS**		
CO2: Able to draw the scales, projections of points and lines parallel to one plane and to other plan.			
TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.			
10	Projections of points in various quadrants	10/10/2019	Lecture interspersed with discussions
11	Projections of lines, lines parallel either of the reference planes	11/10/2019	
12	Determination of true lengths,	17/10/2019	
13	Angle of inclination and traces.	18/10/2019	
UNIT-III	**PROJECTIONS OF PLANES**		
CO3: Able to draw the projections of lines inclined to both the planes and its traces.			
TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.			
14	Projection of plane (parallel to one plane and perpendicular to other plane)	31/10/2019	Lecture interspersed with discussions
15	Projection of plane (parallel to one plane and inclined to other plane)	01/11/2019	
16	Projection of plane (inclined to both plane)	07/11/2019	
17	Projection of plane (inclined to both plane)	08/11/2019	
UNIT-IV	**PROJECTIONS OF SOLIDS**		
CO4: Able to identify the different plans and draw the projections of the plane inclined to both the planes.			
TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.			
18	Projections of Solids	14/11/2019	Lecture

19	Prisms, Pyramids	15/11/2019	interspersed with discussions
20	Cones with the axis inclined to both the planes	21/11/2019	
21	Cylinders with the axis inclined to both the planes	22/11/2019	
UNIT-V Conversion of isometric views to orthographic views **CO5: Able to identify the basic solids and draw the projections of the solids inclined to one of the planes.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
22	Isometric views to orthographic views	28/11/2019	Lecture interspersed with discussions
23	Orthographic views to isometric views.	29/11/2019	
24	Computer Aided Design	06/12/2019	
25	Drawing practice using Auto CAD	12/12/2019	
26	Creating 2D&3D drawings	13/12/2019	

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COURSE STRUCTURE - R19

I Year – I SEMESTER

S. No	Course Code	Subjects	L	T	P	Credits
1	HS1101	English	3	0	0	3
2	BS1101	Mathematics - I	3	0	0	3
3	BS1106	Applied Chemistry	3	0	0	3
4	ES1112	Fundamentals of Computer Science	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1107	Applied Chemistry Lab	0	0	3	1.5
8	ES1105	IT Workshop	0	0	3	1.5
9	MC1101	Environmental Science	3	0	0	0
Total Credits			**16**	**0**	**12**	**19**

I Year – II SEMESTER

S. No	Course Code	Subjects	L	T	P	Credits
1	BS1202	Mathematics – II	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1204	Applied Physics	3	0	0	3
4	ES1201	Programming for Problem Solving using C	3	0	0	3
5	ES1213	Digital Logic Design	3	0	0	3
6	BS1205	Applied Physics Lab	0	0	3	1.5
7	HS1203	Communication Skills Lab	0	1	2	2
8	ES1202	Programming for Problem Solving using C Lab	0	0	3	1.5
9	PR1201	Engineering Exploration Project	0	0	2	1
10	MC1204	Constitution of India	3	0	0	0
Total Credits			**18**	**1**	**10**	**21**

TENTATIVE LESSON PLAN: R19HS1101

Course Title: English HS1101		
Section : CSE – A	Date : 26-08-2019	Page No : 01 of 03
Revision No : 00	Prepared By: Dr. G. Maithreyi	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: A Drawer full of happiness, Deliverance by Premchand **CO1: Facilitate effective listening skills for better comprehension of academic lectures and English spoken by native speakers** **TB: —Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
1	**A Drawer full of happiness**	26-8-19	Lecture interspersed with discussions
2	**Listening : Short Audio Texts**	28-8-19	
3	**Speaking :** Asking and answering questions	30-8-19	
4	**Reading : Skimming and Scanning**	3-9-19	
5	**Reading for Writing :** Paragraph writing	3-9-19	
6	**Vocabulary :** Technical Vocabulary	4-9-19	
7	**Grammar :** Content words and function words	4-9-19	
8	The Deliverance : Munshi Prem Chand	5-9-19	
9	Long Answers	6-9-19	
10	Short Answers	9-9-19	
UNIT-II Nehru's letter to his daughter Indira on her birthday, Bosom Friend by Hira Bansode **CO2: Focus on appropriate reading strategies for comprehension of various academic texts and authentic materials** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
12	**Nehru's letter to his daughter Indira on her birthday**	11-9-19	Lecture interspersed
13	**Listening:** Answering a series of questions	12-9-19	
14	**Speaking:** Discussion in pairs	13-9-19	
15	**Reading**: Identifying sequence of ideas	16-9-19	

16	**Reading for Writing**: Summarizing	18-9-19	with discussions
17	**Vocabulary**: Technical vocabulary	19-9-19	
18	**Grammar**: Use of articles	20-9-19	
19	Bosom Friend Hira Bansode	23-9-19	
20	Long Answers	23-9-19	
21	Short Answers	25-9-19	
UNIT-III: Stephen Hawking-Positivity "Benchmark", Shakespeare's Sister by Virginia Woolf **CO3: Help improve speaking skills through participation in activities such as role plays, discussions and structured talks/oral presentations** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
24	**Stephen Hawking-Positivity 'Benchmark**	27-9-19	Lecture interspersed with discussions
25	**Listening:** Listening for global comprehension	30-9-19	
26	**Speaking:** Discussing specific topics in pairs	10-10-19	
27	**Reading**: Reading a text in detail	14-10-19	
28	**Reading for Writing**: Summarizing	15-10-19	
29	**Vocabulary**: Technical vocabulary	16-10-19	
30	**Grammar**: Verbs - tenses; subject-verb agreement	4-11-19	
31	**Shakespeare's Sister by Virginia Woolf**	7-11-19	
32	Long Answers	8-11-19	
UNIT IV Liking a Tree, Unbowed: Wangari Maathai, Telephone Conversation-Wole Soyinka **CO4: Impart effective strategies for good writing and demonstrate the same in summarizing, writing well organized essays, record and report useful information.** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
33	**Like a Tree, Unbowed: Wangari Maathai-biography**	14-11-19	Lecture interspersed with
34	**Listening:** Making predictions while listening	15-11-19	
35	**Speaking:** Role plays for practice of conversational	18-11-19	

	English		discussions
36	**Reading**: Studying the use of graphic elements	20-11-19	
37	**Reading for Writing**: Information transfer	21-11-19	
38	**Vocabulary**: Technical vocabulary	23-11-19	
39	**Grammar**: Quantifying expressions	27-11-19	
40	Telephone Conversation: Wole Soyinka	28-11-19	
UNIT-V: Stay Hungry-Stay foolish, Still I Rise by Maya Angelou			
CO5: Provide knowledge of grammatical structures and vocabulary and encourage their appropriate use in speech and writing			
TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications			
41	**Stay Hungry-Stay foolish**	4-12-19	
42	**Listening** Identifying key terms	5-12-19	Lecture interspersed with discussions
43	**Speaking:** Formal oral presentations	6-12-19	
44	**Reading**: Reading for comprehension	9-12-19	
45	**Reading for Writing**: Writing academic proposals	12-12-19	
46	**Vocabulary**: Technical vocabulary	13-12-19	
47	**Grammar**: Editing short texts	16-12-19	

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TENTATIVE LESSON PLAN: R19HS1101

Course Title: English HS1101		
Section : CSE-B	Date : 26-08-2019	Page No : 01 of 03
Revision No : 00	Prepared By: Dr. A.Padmaja	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: A Drawer full of happiness, Deliverance by Premchand **CO1: Facilitate effective listening skills for better comprehension of academic lectures and English spoken by native speakers** **TB: —Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
1	**A Drawer full of happiness**	26-8-19	Lecture interspersed with discussions
2	**Listening : Short Audio Texts**	28-8-19	
3	**Speaking :** Asking and answering questions	30-8-19	
4	**Reading : Skimming and Scanning**	3-9-19	
5	**Reading for Writing :** Paragraph writing	3-9-19	
6	**Vocabulary :** Technical Vocabulary	4-9-19	
7	**Grammar :** Content words and function words	4-9-19	
8	The Deliverance : Munshi Prem Chand	5-9-19	
9	Long Answers	6-9-19	
10	Short Answers	9-9-19	
UNIT-II Nehru's letter to his daughter Indira on her birthday, Bosom Friend by Hira Bansode **CO2: Focus on appropriate reading strategies for comprehension of various academic texts and authentic materials** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
12	**Nehru's letter to his daughter Indira on her birthday**	11-9-19	Lecture interspersed
13	**Listening:** Answering a series of questions	12-9-19	
14	**Speaking:** Discussion in pairs	13-9-19	
15	**Reading**: Identifying sequence of ideas	16-9-19	

16	**Reading for Writing**: Summarizing	18-9-19	with discussions
17	**Vocabulary**: Technical vocabulary	19-9-19	
18	**Grammar**: Use of articles	20-9-19	
19	Bosom Friend Hira Bansode	23-9-19	
20	Long Answers	23-9-19	
21	Short Answers	25-9-19	
UNIT-III: Stephen Hawking-Positivity "Benchmark", Shakespeare's Sister by Virginia Woolf **CO3: Help improve speaking skills through participation in activities such as role plays, discussions and structured talks/oral presentations** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
24	**Stephen Hawking-Positivity 'Benchmark**	27-9-19	Lecture interspersed with discussions
25	**Listening:** Listening for global comprehension	30-9-19	
26	**Speaking:** Discussing specific topics in pairs	10-10-19	
27	**Reading**: Reading a text in detail	14-10-19	
28	**Reading for Writing**: Summarizing	15-10-19	
29	**Vocabulary**: Technical vocabulary	16-10-19	
30	**Grammar**: Verbs - tenses; subject-verb agreement	4-11-19	
31	**Shakespeare's Sister by Virginia Woolf**	7-11-19	
32	Long Answers	8-11-19	
UNIT IV Liking a Tree, Unbowed: Wangari Maathai, Telephone Conversation-Wole Soyinka **CO4: Impart effective strategies for good writing and demonstrate the same in summarizing, writing well organized essays, record and report useful information.** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
33	**Like a Tree, Unbowed: Wangari Maathai-biography**	14-11-19	Lecture interspersed with
34	**Listening:** Making predictions while listening	15-11-19	
35	**Speaking:** Role plays for practice of conversational	18-11-19	

	English		discussions
36	**Reading**: Studying the use of graphic elements	20-11-19	
37	**Reading for Writing**: Information transfer	21-11-19	
38	**Vocabulary**: Technical vocabulary	23-11-19	
39	**Grammar**: Quantifying expressions	27-11-19	
40	Telephone Conversation: Wole Soyinka	28-11-19	
UNIT-V: Stay Hungry-Stay foolish, Still I Rise by Maya Angelou			
CO5: Provide knowledge of grammatical structures and vocabulary and encourage their appropriate use in speech and writing			
TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications			
41	**Stay Hungry-Stay foolish**	4-12-19	Lecture interspersed with discussions
42	**Listening** Identifying key terms	5-12-19	
43	**Speaking:** Formal oral presentations	6-12-19	
44	**Reading**: Reading for comprehension	9-12-19	
45	**Reading for Writing**: Writing academic proposals	12-12-19	
46	**Vocabulary**: Technical vocabulary	13-12-19	
47	**Grammar**: Editing short texts	16-12-19	

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TENTATIVE LESSON PLAN: R19BS1101

Course Title: MATHEMATICS - 1		
Section : CSE – A	Date : 26-08-2019	Page No : 01 of 02
Revision No : 00	Prepared By : S.SUMAN	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: SEQUENCES, SERIES AND MEAN VALUE THEOREMS **CO1: Utilize mean value theorems to real life problems** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
1	SEQUENCES AND SERIES: Convergence and Divergence	From: 26-08-2019 To: 14-09-2019	Lecture interspersed with discussions
2	Ratio test		
3	Comparison test		
4	Integral test		
5	Cauchy 's root test		
6	Alternating series		
7	Leibnitz 's rule		
8	Mean Value Theorems: Rolle 's Theorem		
9	Lagrange 's mean value theorem		
10	Cauchy 's mean value theorem		
11	Taylor 's and Maclaurin 's theorems with remainders		
UNIT-II DIFFERENTIAL EQUATIONS OF FIRST ORDER AND FIRST DEEGREE **CO2: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
12	Introduction: Differential Equations of First order first degree	From: 16-09-2019 To: 05-10-2019	Lecture interspersed with discussions
13	Exact Equations – Conditions of Exactness		
14	Equations reducible to Exact		
15	Non Exact Differential Equations		
16	Linear Differential Equations of first order		
17	Bernouli Equation		
18	Equations reducible to linear		
19	Orthogonal Trajectories - Cartesian		
20	Orthogonal Trajectories - Polar		
21	Newton's law of cooling		
22	Natural growth or decay		
23	Electrical Circuits		

UNIT-III : LINEAR DIFFERENTIAL EQUATIONS OF HIGHER ORDER **CO3: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
24	Linear DE of constant coefficients	From: 07-10-2019 To: 19-10-2019 & From: 28-10-2019 To: 09-11-2019	Lecture interspersed with discussions
25	Solutions of $f(D) = Q(x), Q(x) = e^{ax}$		
26	$Q(x) = \sin ax \ or \ \cos ax$		
27	$Q(x) = x^n$		
28	$Q(x) = e^{ax}V(x)$		
29	$Q(x) = xV(x)$		
30	$Q(x) = x^n \sin ax \ or \ \cos ax$		
31	Method of variation of parameters		
32	Applications: LCR Circuit		
UNIT-IV PARTIAL DIFFERENTIATION **CO4: Familirize with functions of several variables which is useful in optimization** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
33	Homogeneous function; Euler's Theorem	From: 11-11-2019 To: 30-11-2019	Lecture interspersed with discussions
34	Total Derivative; Chain rule		
35	Taylor's mean value theorems		
36	Maclaurin's series		
37	Jacobians, formulae		
38	Functional dependence		
39	Maxima minima of two variables		
40	Langranges method		
UNIT-V: MULTIPLE INTEGRALS **CO5: Apply double integration techniques in evaluating areas bounded by region** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
41	Introduction	From: 02-12-2019. To: 21-12-2019	Lecture interspersed with discussions
42	Double integrals		
43	Triple integrals		
44	Change of order of integration		
45	Change of variable		
46	Applications: Finding areas		
47	Finding volumes		

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TENTATIVE LESSON PLAN: R19BS1101

Course Title: MATHEMATICS - 1		
Section : CSE – B	Date : 26-08-2019	Page No : 01 of 02
Revision No : 00	Prepared By : B.V.RAMAKRISHNA RAO	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: SEQUENCES, SERIES AND MEAN VALUE THEOREMS **CO1:utilize mean value theorems to real life problems** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
1	SEQUENCES AND SERIES: Convergence and Divergence	From: 26-08-2019 To: 14-09-2019	Lecture interspersed with discussions
2	Ratio test		
3	Comparison test		
4	Integral test		
5	Cauchy 's root test		
6	Alternating series		
7	Leibnitz 's rule		
8	Mean Value Theorems: Rolle 's Theorem		
9	Lagrange 's mean value theorem		
10	Cauchy 's mean value theorem		
11	Taylor 's and Maclaurin 's theorems with remainders		
UNIT-II DIFFERENTIAL EQUATIONS OF FIRST ORDER AND FIRST DEEGREE **CO2: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
12	Introduction: Differential Equations of First order first degree	From: 16-09-2019 To: 05-10-2019	Lecture interspersed with discussions
13	Exact Equations – Conditions of Exactness		
14	Equations reducible to Exact		
15	Non Exact Differential Equations		
16	Linear Differential Equations of first order		
17	Bernouli Equation		
18	Equations reducible to linear		
19	Orthogonal Trajectories - Cartesian		
20	Orthogonal Trajectories - Polar		
21	Newton's law of cooling		
22	Natural growth or decay		
23	Electrical Circuits		

UNIT-III : LINEAR DIFFERENTIAL EQUATIONS OF HIGHER ORDER **CO3: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
24	Linear DE of constant coefficients	From: 07-10-2019 To: 19-10-2019 & From: 28-10-2019 To: 09-11-2019	Lecture interspersed with discussions
25	Solutions of $f(D) = Q(x); Q(x) = e^{ax}$		
26	$Q(x) = \sin ax \ or \ \cos ax$		
27	$Q(x) = x^n$		
28	$Q(x) = e^{ax}V(x)$		
29	$Q(x) = xV(x)$		
30	$Q(x) = x^n \sin ax \ or \ \cos ax$		
31	Method of variation of parameters		
32	Applications: LCR Circuit		
UNIT-IV PARTIAL DIFFERENTIATION **CO4: Familirize with functions of several variables which is useful in optimization** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
33	Homogeneous function; Euler's Theorem	From: 11-11-2019 To: 30-11-2019	Lecture interspersed with discussions
34	Total Derivative; Chain rule		
35	Taylor's mean value theorems		
36	Maclaurin's series		
37	Jacobians, formulae		
38	Functional dependence		
39	Maxima minima of two variables		
40	Langranges method		
UNIT-V: MULTIPLE INTEGRALS **CO5: Apply double integration techniques in evaluating areas bounded by region** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
41	Introduction	From: 02-12-2019. To: 21-12-2019	Lecture interspersed with discussions
42	Double integrals		
43	Triple integrals		
44	Change of order of integration		
45	Change of variable		
46	Applications: Finding areas		
47	Finding volumes		

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(ISO 9001:2015 Certified Institution)
Department of Science and Humanities

TENTATIVE LESSON PLAN

APPLIED CHEMISTRY: BS1106

Course Title: B. Tech			
Section : CSE-A	Date : 28-8- 2019	Page No : 1-3	
Revision No :00	Prepared By : B.SOWJANYA	Approved By : HOD	
Tools:			
No. of Periods:73	TOPIC	Date	Mode of Delivery
Unit -II :ELECTROCHEMICAL CELLS AND CORROSION			
CO-2: Outline the basic for the construction of electrochemical cells, batteries and fuel cells. Understand the mechanism of corrosion and how it can be prevented.			
(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)			
1	**Unit -II :ELECTROCHEMICAL CELLS**	28-8-2019	Lecture interspersed with discussions
2	Single electrode potentia.	28-8-2019	
3	Electrochemical series and uses of series	30-8-2019	
4	standard hydrogen electrode, calomel electrode	31-8-2019	
5	concentration cell-	3-9-2019	
6	construction of glass electrode	4-9-2019	
7	Batteries: Dry cell, Ni-Cd cells,	6-9-2019	
8	NiMetal hydride cells, Li ion battery, zinc air cells	7-9-2019	
9	Fuel cells: H2-O2, CH3OH-O2,	9-9-2019	
10	phosphoric acid, molten carbonate	9-9-2019	
11	**Corrosion:**-Definition-theories of corrosion	11-9-2019	
12	galvanic corrosion, differential aeration corrosion, stress corrosion,	13-9-2019	
13	waterline corrosion-passivity of metals-galvanicseries	14-9-2019	
14	Factors influencing rate of corrosion-corrosion control	16-9-2019	
15	Protective coatings: Surface preparation, cathodic	16-9-2019	
16	Anodic coatings, electroplating, electroless plating (nickel).	18-9-2019	
17	Paints (constituents, functions, special paints).	19-9-2019	
Unit – I: POLYMER TECHNOLOGY			
CO-1: Importance of usage of plastics in household appliances and composites (FRP) in aerospace and automotive industries.			
(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)			
1	Polymerisation:- Introduction-methods of polymerization	17-9-2019	

2	physical and mechanical properties.	18-9-2019	Lecture interspersed with discussions
3	Plastics: Compounding-fabrication	20-9-2019	
4	preparation, properties and applications of PVC,	21-92019	
5	polycarbonates and Bakelite-mention some examples of plastic.	23-9-2019	
6	Materials used in electronic gadgets, recycling of e-plastic waste	24-9-2019	
7	Elastomers:- Natural rubber-drawbacks-vulcanization	24-9-2019	
8	preparation, properties and applications of synthetic rubbers	25-9-2019	
9	(Buna S, thiokol and polyurethanes	25-9-2019	
10	Composite materials: Fiber reinforced plastics-	26-9-2019	
11	conductingpolymers-	27-9-2019	
12	Biodegradable polymersbiopolymers	27-9-2019	
13	Biomedical polymers	28-9-2019	

Unit – III: MATERIAL CHEMISTRY

CO3: Explain the preparation of semiconductors and nanomaterials, engineering applications of nanomaterials, superconductors and liquidcrystals.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1	**Part I : Non-elemental semiconducting materials**	14-10-2019	Lecture interspersed with discussions
2	Semiconductor devices (p-n junction diode as rectifier, junction transistor	14-10-2019	
3	Insulators & magnetic materials: electrical insulators	15-10-2019	
4	Ferro and ferri magnetism-Hall effect and its applications.	16-10-2019	
5	**Part II: Nano materials**:- Introduction-sol-gel method-	17-10-2019	
6	characterization by BET, SEM and TEM methods	17-10-2019	
7	Applications of graphene-carbon nanotubes and fullerenes:	18-10-2019	
8	Types, preparation and applications Liquid crystals	19-10-2019	
9	Introduction-types-applications. Super conductors:-Type –I, Type II-characteristics and applications.	2,6,6,8,-11-2019	

UNIT IV: ADVANCED CONCEPTS/TOPICS IN CHEMISTRY

C04: Outline the basics of computational chemistry and molecular switches.**(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)**

1	Computational chemistry: Introduction, Ab Initio studies Molecular switches	2-12-2019	Lecture interspersed with discussions
2.	characteristics of molecular motors and machines, Rotaxanes	2-12-2019	
3.	Catenanes as artificial molecular machines, prototypes	4-12-2019	
4.	linear motions in rotaxanes, an acid-base controlled molecular shuttle	6-12-2019	
5.	a molecular elevator,	7-12-2019	
6.	an autonomous light-powered molecular motor	9,9,10,11,13-12-2019	
7.	Computational chemistry: Introduction, Ab Initio studies Molecular switches	13-12-2019	
8.	characteristics of molecular motors and machines,	13-12-2019	

UNIT V: SPECTROSCOPIC TECHNIQUES & NON CONVENTIONAL ENERGY SOURCES

CO-5: Recall the increase in demand for power and hence alternative sources of power are studied due to depleting sources of fossil fuels. Advanced instrumental techniques are introduced.**Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)**

1.	**Part A: SPECTROSCOPIC TECHNIQUES** Electromagnetic spectrum-UV	8-11-2019	Lecture interspersed with discussions
2.	laws of absorption, instrumentation,	11-11-2019	
3	Theory of electronic spectroscopy, Frank-condon principle	11-11-2019	
4.	chromophores and auxochromes, intensity shifts, applications	13-11-2019	
5.	FT-IR (instrumentation and IR of some organic compounds, applications).	16-11-2019	
6.	Magnetic resonance imaging and CT scan (procedure & applications).	19-11-2019	
7.	**Part B: NON CONVENTIONAL ENERGY SOURCES**	19-11-2019	
8.	Design, working, schematic diagram, advantages and disadvantages of photovoltaic cell,	20-11-2019	
9.	hydropower, geothermal power,	22-12-2019	
10.	Tidal and wave power	23-12-2019	

B. Sowjanya 30/10/2020
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Department of Science and Humanities

TENTATIVE LESSON PLAN: APPLIED CHEMISTRY (BS1106)

Course Title: B.Tech			
Section : CSE-B	Date : 26-8- 2019	Page No : 1-3	
Revision No :00	Prepared By : K.P.T.VIJAYA BHASKAR	Approved By : HOD	
Tools: Black board and chalk.			

No. of Periods: 76	TOPIC	Date	Mode of Delivery
	Unit -II :ELECTROCHEMICAL CELLS AND CORROSION		
	CO2: Outline the basics for the construction of electrochemicalcells, batteries and fuelcells. Understand the mechanism of corrosion and how it can be prevented.		
	(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)		
1	Unit -II :ELECTROCHEMICAL CELLS	26-8-2019	Lecture interspersed with discussions
2	Single electrode potentia.	26-8-2019	
3	Electrochemical series and uses of series	27-8-2019	
4	standard hydrogen electrode, calomel electrode	28-8-2019	
5	concentration cell-	30-8-2019	
6	construction of glass electrode	3-9-2019	
7	Batteries: Dry cell, Ni-Cd cells,	4-9-2019	
8	Ni Metal hydride cells, Li ion battery, zinc air cells	5-9-2019	
9	Fuel cells: H2-O2, CH3OH-O2,	6-9-2019	
10	phosphoric acid, molten carbonate	9-9-2019	
11	**Corrosion:**-Definition-theories of corrosion	9-9-2019	
12	galvanic corrosion, differential aeration corrosion, stress corrosion,	9-9-2019	
13	waterline corrosion-passivity of metals-galvanic series	11-9-2019	
14	Factors influencing rate of corrosion-corrosion control	13-9-2019	
15	Protective coatings: Surface preparation, cathodic	16-9-2019	
16	Anodic coatings, electroplating, electroless plating (nickel).	17-9-2019-	
17	Paints (constituents, functions, special paints).	18-9-2019	
	Unit – I: POLYMER TECHNOLOGY		
	CO1: Importance of usage of plastics in household appliances and composites(FRP) in aerospace and automotive industries.		
	(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)		
1	Polymerisation:- Introduction-methods of polymerization	23-9-2019	
2	physical and mechanical properties.	23-9-2019	

3	Plastics: Compounding-fabrication	24-9-2019	Lecture interspersed with discussions
4	preparation, properties and applications of PVC,	25-9-2019	
5	polycarbonates and Bakelite-mention some examples of plastic.	26-9-2019	
6	Materials used in electronic gadgets, recycling of e-plastic waste	26-9-2019	
7	Elastomers:- Natural rubber-drawbacks-vulcanization	26-9-2019	
8	preparation, properties and applications of synthetic rubbers	27-9-2019	
9	(Buna S, thiokol and polyurethanes	27-9-2019	
10	Composite materials: Fiber reinforced plastics-.	28-9-2019	
11	Conducting polymers-	30-9-2019	
12	Biodegradable polymers biopolymers	30-9-2019	
13	Biomedical polymers	11-10-2019	

UNIT III: MATERIAL CHEMISTRY

CO3: Explain the preparation of semiconductors and nanomaterials, engineering applications of nanomaterials, superconductors and liquidcrystals.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1	**Part I : Non-elemental semiconducting materials**	14-10-2019	Lecture interspersed with discussions
2	Semiconductor devices (p-n junction diode as rectifier, junction transistor	15-10-2019	
3	Insulators & magnetic materials: electrical insulators	16-10-2019	
4	Ferro and ferri magnetism-Hall effect and its applications.	17-10-2019	
5	**Part II: Nano materials**:- Introduction-sol-gel method-	18-10-2019	
6	characterization by BET, SEM and TEM methods	24-10-2019	
7	Applications of graphene-carbon nanotubes and fullerenes:	5-11-2019	
8	Types, preparation and applications Liquid crystals	6-11-2019	
9	Introduction-types-applications. Super conductors:-Type –I, Type II-characteristics and applications.	7-11-2019	

UNIT IV: ADVANCED CONCEPTS/TOPICS IN CHEMISTRY

C04: Outline the basics of computational chemistry and molecular switches.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1	Computational chemistry: Introduction, Ab Initio studies Molecular switches	10-11-2019	

2.	characteristics of molecular motors and machines, Rotaxanes	12-11-2019	Lecture interspersed with discussions
3.	Catenanes as artificial molecular machines, prototypes	18-11-2019	
4.	linear motions in rotaxanes, an acid-base controlled molecular shuttle	18-11-2019	
5.	a molecular elevator,	19-11-2019	
6.	an autonomous light-powered molecular motor	20-11-2019	
7.	Computational chemistry: Introduction, Ab Initio studies Molecular switches	21-11-2019	
8.	characteristics of molecular motors and machines,	22-11-2019	

UNIT V: SPECTROSCOPIC TECHNIQUES & NON CONVENTIONAL ENERGY SOURCES

CO5: Recall the increase in demand for power and hence alternative sources of power are studied due to depleting sources of fossil fuels. Advanced instrumental techniques are introduced.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1.	**Part A: SPECTROSCOPIC TECHNIQUES** Electromagnetic spectrum-UV	29-11-2019	Lecture interspersed with discussions
2.	laws of absorption, instrumentation,	2-12-2019	
3	Theory of electronic spectroscopy, Frank-condon principle	3-12-2019	
4.	chromophores and auxochromes, intensity shifts, applications	4-12-2019	
5.	FT-IR (instrumentation and IR of some organic compounds, applications).	5-12-2019	
6.	Magnetic resonance imaging and CT scan (procedure & applications).	6-12-2019	
7.	**Part B: NON CONVENTIONAL ENERGY SOURCES**	9-12-2019	
8.	Design, working, schematic diagram, advantages and disadvantages of photovoltaic cell,	10-12-2019	
9.	hydropower, geothermal power,	11-12-2019 12-12-2019	
10.	Tidal and wave power	17-12-2019	

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TENTATIVE LESSON PLAN:R19ES1103

Course Title: ENGINEERING DRAWING		Course Code: R19ES1103
Section : Sec I	Date : 8/2/2020	Page No : 01 of 02
Revision No : 00	Prepared By : D.HARITHA BRAHMA	Approved By : HOD

Tools: Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
	UNIT-I INTRODUCTION TO DRAWING **CO1: Able to draw the polygons, curves and Able to draw the scales,** **T TB: "Engineering Drawing", by N.D. Butt &V.M. Panchal, Chariot Publishing House, Anand. 49th Edition – 2006.**		
1	Introduction	30/08/19	Lecture interspersed with discussions
2	Lettering and Dimensioning	31/08/19	
3	Geometrical constructions	06/09/19	
4	Polygons	13/09/19	
5	Parabola, Ellipse and Hyperbola	20/09/19	
6	Cycloids	21/09/19	
7	Involutes	26/09/19	
8	Vernier scales	27/09/19	
9	Plain scales, diagonal scale	28/09/19	
	UNIT-II INTRODUCTION TO ORTHOGRAPHIC PROJECTIONS **CO2: parallel to one plane and to other plan and Able to draw the projections of lines inclined to both the planes and its traces.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**		
10	Projections of points in various quadrants	11/10/19	Lecture interspersed with discussions
11	Projections of lines, lines parallel either of the reference planes	15/10/19	
12	Projection of lines inclined to both planes	18/10/19	
13	True length determination	19/10/19	
14	Determination of true angle of inclination	19/10/19	
15	Traces (inclined to both planes)	02/11/19	
	UNIT-III PROJECTIONS OF PLANES **CO3: Able to identify the different plans and draw the projections of the plane inclined to both the planes.** **T TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**		
16	Projection of plane (parallel to one plane and perpendicular to other plane)	08/11/19	Lecture interspersed with discussions
17	Projection of plane (parallel to one plane and inclined to other plane)	15/11/19	
18	Projection of plane (inclined to both plane)	16/11/19	
19	Projection of plane (inclined to both plane)	23/11/19	

UNIT-IV PROJECTIONS OF SOLIDS **CO4: Able to identify the basic solids and draw the projections of the solids inclined to one of the planes** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
20	Projection of solids (Prisms, Cylinder)	29/11/19	Lecture interspersed with discussions
21	Projection of solids (Prisms, Cylinder)	30/11/19	
22	Projection of solids (Pyramids, cone)	06/12/19	
23	Projection of solids (Pyramids, cone)	07/12/19	
UNIT-V ISOMETRIC PROJECTIONS **CO5: Able to represent and convert the isometric view to orthographic view and orthographic view to isometric view** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
24	Conversion of isometric views to orthographic views	10/12/19	Lecture interspersed with discussions
25	Conversion of isometric views to orthographic views	20/12/19	
26	Conversion of isometric views to orthographic views	21/12/19	
27	Conversion of orthographic views to isometric views	21/12/19	

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Date: 29/2/2020

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TENTATIVE LESSON PLAN:R19ES1103

Course Title: ENGINEERING DRAWING		Course Code: R19ES1103
Section : Sec II	Date : 8/2/2020	Page No : 01 of 02
Revision No : 00	Prepared By : D.HARITHA BRAHMA	Approved By : HOD

Tools: Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
	UNIT-I INTRODUCTION TO DRAWING **CO1: Able to draw the polygons, curves and Able to draw the scales** **T TB: "Engineering Drawing", by N.D. Butt &V.M. Panchal, Chariot Publishing House, Anand. 49th Edition – 2006.**		
1	Introduction	28/08/19	Lecture interspersed with discussions
2	Lettering and Dimensioning	07/09/19	
3	Geometrical constructions	09/09/19	
4	Parabola, Ellipse and |Hyperbola	11/09/19	
5	Polygons	16/09/19	
6	Cycloids	18/09/19	
7	Involutes	23/09/19	
8	Vernier scales	25,30/09/19	
9	Plain scales, diagonal scale	14,16/09/19	
	UNIT-II INTRODUCTION TO ORTHOGRAPHIC PROJECTIONS **CO2: parallel to one plane and to other plan and Able to draw the projections of lines inclined to both the planes and its traces.** **TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**		
10	Projections of points in various quadrants	04/11/19	Lecture interspersed with discussions
11	Projections of lines, lines parallel either of the reference planes	06/11/19	
12	Projection of lines inclined to both planes	11/11/19	
13	True length determination	13/11/19	
14	Determination of true angle of inclination	18/11/19	
15	Traces (inclined to both planes)	18/11/19	
	UNIT-III PROJECTIONS OF PLANES **CO3: Able to identify the different plans and draw the projections of the plane inclined to both the planes.** **T TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**		
16	Projection of plane (parallel to one plane and perpendicular to other plane)	20/11/19	Lecture interspersed with discussions
17	Projection of plane (parallel to one plane and inclined to other plane)	20/11/19	
18	Projection of plane (inclined to both plane)	25/11/19	
19	Projection of plane (inclined to both plane)	27/11/19	

UNIT-IV PROJECTIONS OF SOLIDS

CO4: Able to identify the basic solids and draw the projections of the solids inclined to one of the planes

TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.

20	Projection of solids (Prisms, Cylinder)	02/12/19	Lecture interspersed with discussions
21	Projection of solids (Prisms, Cylinder)	04/12/19	
22	Projection of solids (Pyramids, cone)	09/12/19	
23	Projection of solids (Pyramids, cone)	10/12/19	

UNIT-V ISOMETRIC PROJECTIONS

CO5: Able to represent and convert the isometric view to orthographic view and orthographic view to isometric view

TB: "Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.

24	Conversion of isometric views to orthographic views	12/12/19	Lecture interspersed with discussions
25	Conversion of isometric views to orthographic views	12/12/19	
26	Conversion of isometric views to orthographic views	16/12/19	
27	Conversion of orthographic views to isometric views	16/12/19	

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Date: 29/2/2020

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DEPARTMENT OF SCIENCE AND HUMANITIES

Tentative Lesson Plan

Course Title: FUNDAMENTALS OF COMPUTER SCIENCE		
Section: CSE-A	**Date:** 04/11/2020	**Sub Code:** R19ES1112
Revision No: 00	**Prepared By:** M.V.SUMANTH	**Approved By:** HOD

Tools: Black board, PPTs, and Online

S. No.	Topic	Date	Mode of Delivery
UNIT-I INTRODUCTION COMPUTER STUDIES **CO1:** Explain the concepts of computers and classify based on type and generation. **TB1:** An Introduction to Computer studies –Noel Kalicharan-Cambridge.			
1	A Simple Computer System: Central processing unit,	**From: 26/08/19** **To: 12/09/19**	Lecture interspersed with discussions
2	the further need of secondary storage,		
3	Types of memory,		
4	Hardware, Software and people.		
5	Peripheral Devices: Input, Output and storage,		
6	Data Preparation, Factors affecting input,		
7	Input devices, Output devices,		
8	Secondary devices,		
9	Communication between the CPU and Input/ Output devices. (Text Book 1)		
UNIT-II PROBLEM SOLVING AND PROGRAMMING **CO2:** Demonstrate the techniques of writing algorithms pseudo codes & schematic flow of logic in software development process. **TB1:** An Introduction to Computer studies –Noel Kalicharan-Cambridge.			
10	Flowcharts	**From: 13/09/19** **To: 26/09/19**	Lecture interspersed with discussions
11	Looping		
12	some programming features		
13	Pseudo code, the one-zero game		
14	some structured programming concepts		
15	Documents		
16	Tutorial		
17	Programming Languages: Machine Language and assembly language		
18	high -level and low level languages,		
19	Don't – Care Conditions		
20	Products of Sum Simplification		
21	Sum of Products Simplification		
22	Assemblers,		
23	Compilers, and Interpreters		

UNIT-III COMPUTER NETWORKS **CO3:** 1.Teach about the purpose of networks and types of networks and media to connect the computers 2. Teach about Operating Systems and its concepts. **TB2:** Fundamentals of Computers –Reema Thareja-Oxford higher education			
24	**Computer Networks :** Introduction to computer Networks, Network topologies-Bus topology, star topology, Ring topology, Mesh topology, Hybrid topology,	**From: 27/09/19** **To:** **05/11/19**	Lecture interspersed with discussions
25	Types of Networks: Local area Network, Wide Area Networks, Metropolitan Networks, Campus/ Corporate Area Network, Personal Area Network,		
26	Network Devices- Hub, Repeater, Switch, Bridge, Router, Gateway, Network interface Card, Open System Inter connection Model (Text Book 2)		
27	**Operating systems:** Introduction, Evolution of operating systems,		
28	Process Management- Process control block, Process operations, Process scheduling, Command Interpreter,		
29	Popular operating systems- Microsoft DOS, Microsoft Windows, UNIX and Linux. (Text Book 2)		
UNIT-IV DATABASE SYSTEMS, COMPUTER SYSTEMS AND DEVELOPMENT **CO4:** Illustrate about database architecture and its components. **TB1: An Introduction to Computer studies –Noel Kalicharan-Cambridge.** **TB2: Fundamentals of Computers –Reema Thareja-Oxford higher education.**			
32	File-Oriented Approach, Database-oriented Approach	**From: 6/11/19** **To: 26/11/19**	Lecture interspersed with discussions
33	Components of Database system, Advantages & Disadvantages of Database approach, Applications of Database systems,		
34	Database views, Three-schema architecture, Database models-Hierarchical model, Network Model, relational Model, Object-oriented Data Model,		
35	Components of database management systems, Retrieving Data through Queries (Text Book 2)		
36	Investigation, Analysis, Design, system processing and general program design,		
37	Presentation to management and users, Implementation, Documents. (Text Book 1).		
UNIT-V EMERGING COMPUTER TECHNOLOGIES, WIRELESS NETWORKS **CO5:** Illustrate about distributed computing, peer to peer, grid, cloud on demand and utility computing **TB2: Fundamentals of Computers –Reema Thareja-Oxford higher education.**			
38	Distributed Networking, Peer-to-peer Computing, Categorization of Peer-to-peer system Applications of Peer-to-peer networks	**From: 27/11/19** **To:21/12/19**	Lecture interspersed with discussions
39	Grid Computing-components of Grid computing, Applications of Grid computing,,		
40	Cloud Computing-characteristics of cloud computing systems, cloud computing services, cloud computing architecture, cloud computing applications, Cloud computing concerns		

41	Wireless network operations, Types of wireless networks, security in wireless Networks, Limitations of wireless Networks		
42	Bluetooth – Bluetooth Piconets, Avoiding Interference in Bluetooth Devices, Bluetooth Security, Differences between Bluetooth and Wireless Networks. (Text Book 2)		

TB1: An Introduction to Computer studies –Noel Kalicharan-Cambridge.
TB2: Fundamentals of Computers –Reema Thareja-Oxford higher education.

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Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)
DEPARTMENT OF SCIENCE AND HUMANITIES

Tentative Lesson Plan

Course Title: FUNDAMENTALS OF COMPUTER SCIENCE		
Section: CSE-B	**Date:** 04/11/2020	**Sub Code:** R19ES1112
Revision No: 00	**Prepared By:** P.JAYA SRI	**Approved By:** HOD

Tools: Black board, PPTs, and Online

S. No.	Topic	Date	Mode of Delivery
UNIT-I	**INTRODUCTION COMPUTER STUDIES**		
CO1: Explain the concepts of computers and classify based on type and generation.			
1	A Simple Computer System: Central processing unit,	**From: 26/08/19** **To: 12/09/19**	Lecture interspersed with discussions
2	the further need of secondary storage,		
3	Types of memory,		
4	Hardware, Software and people.		
5	Peripheral Devices: Input, Output and storage,		
6	Data Preparation, Factors affecting input,		
7	Input devices, Output devices,		
8	Secondary devices,		
9	Communication between the CPU and Input/ Output devices. (Text Book 1)		
UNIT-II	**PROBLEM SOLVING AND PROGRAMMING**		
CO2: Demonstrate the techniques of writing algorithms pseudo codes & schematic flow of logic in software development process.			
10	Flowcharts	**From: 13/09/19** **To: 26/09/19**	Lecture interspersed with discussions
11	Looping		
12	some programming features		
13	Pseudo code, the one-zero game		
14	some structured programming concepts		
15	Documents		
16	Tutorial		
17	Programming Languages: Machine Language and assembly language		
18	high -level and low level languages,		
19	Don't – Care Conditions		
20	Products of Sum Simplification		
21	Sum of Products Simplification		
22	Assemblers,		
23	Compilers, and Interpreters		
UNIT-III	**COMPUTER NETWORKS**		
CO3: 1.Teach about the purpose of networks and types of networks and media to connect the computers 2. Teach about Operating Systems and its concepts.			
24	**Computer Networks :** Introduction to computer Networks, Network topologies-Bus topology, star topology, Ring topology, Mesh topology, Hybrid topology,		
25	Types of Networks: Local area Network, Wide Area Networks,		

	Metropolitan Networks, Campus/ Corporate Area Network, Personal Area Network,	From: 27/09/19 To: 05/11/19	Lecture interspersed with discussions
26	Network Devices- Hub, Repeater, Switch, Bridge, Router, Gateway, Network interface Card, Open System Inter connection Model (Text Book 2)		
27	**Operating systems:** Introduction, Evolution of operating systems,		
28	Process Management- Process control block, Process operations, Process scheduling, Command Interpreter,		
29	Popular operating systems- Microsoft DOS, Microsoft Windows, UNIX and Linux. (Text Book 2)		
UNIT-IV DATABASE SYSTEMS, COMPUTER SYSTEMS AND DEVELOPMENT **CO4:** Illustrate about database architecture and its components.			
32	File-Oriented Approach, Database-oriented Approach	From: 6/11/19 To: 26/11/19	Lecture interspersed with discussions
33	Components of Database system, Advantages & Disadvantages of Database approach, Applications of Database systems,		
34	Database views, Three-schema architecture, Database models- Hierarchical model, Network Model, relational Model, Object-oriented Data Model,		
35	Components of database management systems, Retrieving Data through Queries (Text Book 2)		
36	Investigation, Analysis, Design, system processing and general program design,		
37	Presentation to management and users, Implementation, Documents. (Text Book 1).		
UNIT-V EMERGING COMPUTER TECHNOLOGIES, WIRELESS NETWORKS **CO5:** Illustrate about distributed computing, peer to peer, grid, cloud on demand and utility computing **TB2: Fundamentals of Computers –Reema Thareja-Oxford higher education.**			
38	Distributed Networking, Peer-to-peer Computing, Categorization of Peer-to-peer system Applications of Peer-to-peer networks	From: 27/11/19 To:21/12/19	Lecture interspersed with discussions
39	Grid Computing-components of Grid computing, Applications of Grid computing,,		
40	Cloud Computing-characteristics of cloud computing systems, cloud computing services, cloud computing architecture, cloud computing applications, Cloud computing concerns		
41	Wireless network operations, Types of wireless networks, security in wireless Networks, Limitations of wireless Networks		
42	Bluetooth – Bluetooth Piconets, Avoiding Interference in Bluetooth Devices, Bluetooth Security, Differences between Bluetooth and Wireless Networks. (Text Book 2)		

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF INFORMATION TECHNOLOGY

COURSE STRUCTURE - R19

I Year – I SEMESTER

S. No	Course Code	Subjects	L	T	P	Credits
1	HS1101	English	3	0	0	3
2	BS1101	Mathematics - I	3	0	0	3
3	BS1106	Applied Chemistry	3	0	0	3
4	ES1112	Fundamentals of Computer Science	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1107	Applied Chemistry Lab	0	0	3	1.5
8	ES1105	IT Workshop	0	0	3	1.5
9	MC1101	Environmental Science	3	0	0	0
Total Credits			**16**	**0**	**12**	**19**

I Year – II SEMESTER

S. No	Course Code	Subjects	L	T	P	Credits
1	BS1202	Mathematics – II	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1204	Applied Physics	3	0	0	3
4	ES1201	Programming for Problem Solving using C	3	0	0	3
5	ES1213	Digital Logic Design	3	0	0	3
6	BS1205	Applied Physics Lab	0	0	3	1.5
7	HS1203	Communication Skills Lab	0	1	2	2
8	ES1202	Programming for Problem Solving using C Lab	0	0	3	1.5
9	PR1201	Engineering Exploration Project	0	0	2	1
10	MC1204	Constitution of India	3	0	0	0
Total Credits			**18**	**1**	**10**	**21**

TENTATIVE LESSON PLAN: R19HS1101

Course Title: English HS1101		
Section : IT	Date : 26-08-2019	Page No : 01 of 03
Revision No : 00	Prepared By: D.Anand	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: A Drawer full of happiness, Deliverance by Premchand **CO1: Facilitate effective listening skills for better comprehension of academic lectures and English spoken by native speakers** **TB: —Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
1	**A Drawer full of happiness**	26-8-19	Lecture interspersed with discussions
2	**Listening : Short Audio Texts**	28-8-19	
3	**Speaking :** Asking and answering questions	30-8-19	
4	**Reading : Skimming and Scanning**	3-9-19	
5	**Reading for Writing :** Paragraph writing	3-9-19	
6	**Vocabulary :** Technical Vocabulary	4-9-19	
7	**Grammar :** Content words and function words	4-9-19	
8	The Deliverance : Munshi Prem Chand	5-9-19	
9	Long Answers	6-9-19	
10	Short Answers	9-9-19	
UNIT-II Nehru's letter to his daughter Indira on her birthday, Bosom Friend by Hira Bansode **CO2: Focus on appropriate reading strategies for comprehension of various academic texts and authentic materials** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
12	**Nehru's letter to his daughter Indira on her birthday**	11-9-19	Lecture interspersed
13	**Listening:** Answering a series of questions	12-9-19	
14	**Speaking:** Discussion in pairs	13-9-19	
15	**Reading**: Identifying sequence of ideas	16-9-19	

16	**Reading for Writing**: Summarizing	18-9-19	with discussions
17	**Vocabulary**: Technical vocabulary	19-9-19	
18	**Grammar**: Use of articles	20-9-19	
19	Bosom Friend Hira Bansode	23-9-19	
20	Long Answers	23-9-19	
21	Short Answers	25-9-19	
UNIT-III: Stephen Hawking-Positivity "Benchmark", Shakespeare's Sister by Virginia Woolf **CO3: Help improve speaking skills through participation in activities such as role plays, discussions and structured talks/oral presentations** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
24	**Stephen Hawking-Positivity 'Benchmark**	27-9-19	Lecture interspersed with discussions
25	**Listening:** Listening for global comprehension	30-9-19	
26	**Speaking:** Discussing specific topics in pairs	10-10-19	
27	**Reading**: Reading a text in detail	14-10-19	
28	**Reading for Writing**: Summarizing	15-10-19	
29	**Vocabulary**: Technical vocabulary	16-10-19	
30	**Grammar**: Verbs - tenses; subject-verb agreement	4-11-19	
31	**Shakespeare's Sister by Virginia Woolf**	7-11-19	
32	Long Answers	8-11-19	
UNIT IV Liking a Tree, Unbowed: Wangari Maathai, Telephone Conversation-Wole Soyinka **CO4: Impart effective strategies for good writing and demonstrate the same in summarizing, writing well organized essays, record and report useful information.** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
33	**Like a Tree, Unbowed: Wangari Maathai-biography**	14-11-19	Lecture interspersed with
34	**Listening:** Making predictions while listening	15-11-19	
35	**Speaking:** Role plays for practice of conversational	18-11-19	

	English		discussions
36	**Reading**: Studying the use of graphic elements	20-11-19	
37	**Reading for Writing**: Information transfer	21-11-19	
38	**Vocabulary**: Technical vocabulary	23-11-19	
39	**Grammar**: Quantifying expressions	27-11-19	
40	Telephone Conversation: Wole Soyinka	28-11-19	
UNIT-V: Stay Hungry-Stay foolish, Still I Rise by Maya Angelou **CO5: Provide knowledge of grammatical structures and vocabulary and encourage their appropriate use in speech and writing** **TB: Infotech English, Maruthi Publications, —The Individual Society‖, Pearson Publications**			
41	**Stay Hungry-Stay foolish**	4-12-19	Lecture interspersed with discussions
42	**Listening** Identifying key terms	5-12-19	
43	**Speaking:** Formal oral presentations	6-12-19	
44	**Reading**: Reading for comprehension	9-12-19	
45	**Reading for Writing**: Writing academic proposals	12-12-19	
46	**Vocabulary**: Technical vocabulary	13-12-19	
47	**Grammar**: Editing short texts	16-12-19	

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TENTATIVE LESSON PLAN: R19BS1101

Course Title: MATHEMATICS - 1		
Section : IT	Date : 26-08-2019	Page No : 01 of 02
Revision No : 00	Prepared By : S.KALPANA	Approved By : HOD

Tools: Black board

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-1: SEQUENCES, SERIES AND MEAN VALUE THEOREMS **CO1:utilize mean value theorems to real life problems** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
1	SEQUENCES AND SERIES: Convergence and Divergence	From: 26-08-2019 To: 14-09-2019	Lecture interspersed with discussions
2	Ratio test		
3	Comparison test		
4	Integral test		
5	Cauchy 's root test		
6	Alternating series		
7	Leibnitz 's rule		
8	Mean Value Theorems: Rolle 's Theorem		
9	Lagrange 's mean value theorem		
10	Cauchy 's mean value theorem		
11	Taylor 's and Maclaurin 's theorems with remainders		
UNIT-II DIFFERENTIAL EQUATIONS OF FIRST ORDER AND FIRST DEEGREE **CO2: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
12	Introduction: Differential Equations of First order first degree	From: 16-09-2019 To: 05-10-2019	Lecture interspersed with discussions
13	Exact Equations – Conditions of Exactness		
14	Equations reducible to Exact		
15	Non Exact Differential Equations		
16	Linear Differential Equations of first order		
17	Bernouli Equation		
18	Equations reducible to linear		
19	Orthogonal Trajectories - Cartesian		
20	Orthogonal Trajectories - Polar		
21	Newton's law of cooling		
22	Natural growth or decay		
23	Electrical Circuits		

UNIT-III : LINEAR DIFFERENTIAL EQUATIONS OF HIGHER ORDER **CO3: Solve the differential equations related to various engineering fields** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
24	Linear DE of constant coefficients	From: 07-10-2019 To: 19-10-2019 & From: 28-10-2019 To: 09-11-2019	Lecture interspersed with discussions
25	Solutions of $f(D) = Q(x), Q(x) = e^{ax}$		
26	$Q(x) = \sin ax \ or \ \cos ax$		
27	$Q(x) = x^n$		
28	$Q(x) = e^{ax}V(x)$		
29	$Q(x) = xV(x)$		
30	$Q(x) = x^n \sin ax \ or \ \cos ax$		
31	Method of variation of parameters		
32	Applications: LCR Circuit		
UNIT-IV PARTIAL DIFFERENTIATION **CO4: Familirize with functions of several variables which is useful in optimization** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
33	Homogeneous function; Euler's Theorem	From: 11-11-2019 To: 30-11-2019	Lecture interspersed with discussions
34	Total Derivative; Chain rule		
35	Taylor's mean value theorems		
36	Maclaurin's series		
37	Jacobians, formulae		
38	Functional dependence		
39	Maxima minima of two variables		
40	Langranges method		
UNIT-V: MULTIPLE INTEGRALS **CO5: Apply double integration techniques in evaluating areas bounded by region** **TB:" Engineering Mathematics", Dr. T.K.V.Iyengar; S.Chand publications**			
41	Introduction	From: 02-12-2019. To: 21-12-2019	Lecture interspersed with discussions
42	Double integrals		
43	Triple integrals		
44	Change of order of integration		
45	Change of variable		
46	Applications: Finding areas		
47	Finding volumes		

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Department of Science and Humanities

TENTATIVELESSON PLAN
APPLIED CHEMISTRY: BS1106

Course Title: B.Tech			
Section : IT	Date : 26-8- 2019	Page No :1-3	
Revision No :00	Prepared By: B.SOWJANYA	Approved By : HOD	
Tools:			

No. of Periods-76	TOPIC	Date	Mode of Delivery
	Unit -II :ELECTROCHEMICAL CELLS AND CORROSION		
	CO-2: Outline the basic for the construction of electrochemical cells, batteries and fuel cells. Understand the mechanism of corrosion and how it can be prevented.		
	(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)		
1	**Unit -II :ELECTROCHEMICAL CELLS**	26-8-2019	Lecture interspersed with discussions
2	Single electrode potentia.	26-8-2019	
3	Electrochemical series and uses of series	27-8-2019	
4	standard hydrogen electrode, calomel electrode	28-8-2019	
5	concentration cell-	30-8-2019	
6	construction of glass electrode	3-9-2019	
7	Batteries: Dry cell, Ni-Cd cells,	4-9-2019	
8	NiMetal hydride cells, Li ion battery, zinc air cells	5-9-2019	
9	Fuel cells: H2-O2, CH3OH-O2,	6-9-2019	
10	phosphoric acid, molten carbonate	9-9-2019	
11	**Corrosion:**-Definition-theories of corrosion	9-9-2019	
12	galvanic corrosion, differential aeration corrosion, stress corrosion,	9-9-2019	
13	waterline corrosion-passivity of metals-galvanicseries	11-9-2019	
14	Factors influencing rate of corrosion-corrosion control	13-9-2019	
15	Protective coatings: Surface preparation, cathodic	16-9-2019	
16	Anodic coatings, electroplating, electroless plating (nickel).	17-9-2019-	
17	Paints (constituents, functions, special paints).	18-9-2019	
	Unit – I: POLYMER TECHNOLOGY		
	CO-1: Importance of usage of plastics in household appliances and composites (FRP) in aerospace and automotive industries.		
	(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)		
1	Polymerisation:- Introduction-methods of polymerization	23-9-2019	

2	physical and mechanical properties.	23-9-2019	Lecture interspersed with discussions
3	Plastics: Compounding-fabrication	24-9-2019	
4	preparation, properties and applications of PVC,	25-9-2019	
5	polycarbonates and Bakelite-mention some examples of plastic.	26-9-2019	
6	Materials used in electronic gadgets, recycling of e-plastic waste	26-9-2019	
7	Elastomers:- Natural rubber-drawbacks-vulcanization	26-9-2019	
8	preparation, properties and applications of synthetic rubbers	27-9-2019	
9	(Buna S, thiokol and polyurethanes	27-9-2019	
10	Composite materials: Fiber reinforced plastics-.	28-9-2019	
11	conductingpolymers-	30-9-2019	
12	Biodegradable polymersbiopolymers	30-9-2019	
13	Biomedical polymers	11-10-2019	

Unit – III: MATERIAL CHEMISTRY

CO3: Explain the preparation of semiconductors and nanomaterials, engineering applications of nanomaterials, superconductors and liquidcrystals.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1	**Part I : Non-elemental semiconducting materials**	14-10-2019	Lecture interspersed with discussions
2	Semiconductor devices (p-n junction diode as rectifier, junction transistor	15-10-2019	
3	Insulators & magnetic materials: electrical insulators	16-10-2019	
4	Ferro and ferri magnetism-Hall effect and its applications.	17-10-2019	
5	**Part II: Nano materials**:- Introduction-sol-gel method-	18-10-2019	
6	characterization by BET, SEM and TEM methods	24-10-2019	
7	Applications of graphene-carbon nanotubes and fullerenes:	5-11-2019	
8	Types, preparation and applications Liquid crystals	6-11-2019	
9	Introduction-types-applications. Super conductors:-Type –I, Type II-characteristics and applications.	7-11-2019	

UNIT IV: ADVANCED CONCEPTS/TOPICS IN CHEMISTRY

CO4: Outline the basics of computational chemistry and molecular switches.

Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1	Computational chemistry: Introduction, Ab Initio studies Molecular switches	10-11-2019	Lecture interspersed with discussions
2.	characteristics of molecular motors and machines, Rotaxanes	12-11-2019	
3.	Catenanes as artificial molecular machines, prototypes	18-11-2019	
4.	linear motions in rotaxanes, an acid-base controlled molecular shuttle	18-11-2019	
5.	a molecular elevator,	19-11-2019	
6.	an autonomous light-powered molecular motor	20-11-2019	
7.	Computational chemistry: Introduction, Ab Initio studies Molecular switches	21-11-2019	
8.	characteristics of molecular motors and machines,	22-11-2019	

UNIT V: SPECTROSCOPIC TECHNIQUES & NON CONVENTIONAL ENERGY SOURCES

CO-5: Recall the increase in demand for power and hence alternative sources of power are studied due to depleting sources of fossil fuels. Advanced instrumental techniques are introduced.

(Engineering Chemistry by Jain and Jain; Dhanpat Rai Publicating Co.)

1.	**Part A: SPECTROSCOPIC TECHNIQUES** Electromagnetic spectrum-UV	29-11-2019	Lecture interspersed with discussions
2.	laws of absorption, instrumentation,	2-12-2019	
3	Theory of electronic spectroscopy, Frank-condon principle	3-12-2019	
4.	chromophores and auxochromes, intensity shifts, applications	4-12-2019	
5.	FT-IR (instrumentation and IR of some organic compounds, applications).	5-12-2019	
6.	Magnetic resonance imaging and CT scan (procedure & applications).	6-12-2019	
7.	**Part B: NON CONVENTIONAL ENERGY SOURCES**	9-12-2019	
8.	Design, working, schematic diagram, advantages and disadvantages of photovoltaic cell,	10-12-2019	
9.	hydropower, geothermal power,	11-12-2019 12-12-2019	
10.	Tidal and wave power	17-12-2019	

B. Sowjanya 20/10/2020
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TENTATIVE LESSON PLAN

Course Title: ENGINEERING DRAWING		Course Code:R19ES1103
Section : Sec I	Date : 26/08/2019	Page No : 01 of 02
Revision No : 00	Prepared By: R. KIRAN KUMAR	Approved By : HOD

Tools: Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I INTRODUCTION TO DRAWING **CO1:Able to draw the polygons, curves, scales** **TB:"Engineering Drawing", by N.D. Butt &V.M. Panchal, Chariot Publishing House, Anand. 49th Edition – 2006.**			
1	Introduction	26/08/2019	Lecture interspersed with discussions
2	Lettering and Dimensioning	26/08/2019	
3	Geometrical constructions, Polygons	27/08/2019	
4	Ellipse	3/09/2019 9/09/2019	
5	Parabola and Hyperbola	23/09/2019	
6	Cycloids	30/09/2019	
7	Involutes	30/09/2019	
8	Vernier scales	14/10/2019	
9	Plain scales, diagonal scale	15/10/2019	
UNIT-IIPROJECTIONS OF STRAIGHT LINES **CO2:Able to draw the projections of points and lines parallel to one plane and to other plan and inclined to both the planes and its traces.** **TB:"Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			Lecture interspersed with discussions
10	Projections of points in various quadrants	4/11/2019	
11	Projections of lines, lines parallel either of the reference planes and inclined to both planes	4/11/2019	
13	True length determination and true angle of inclination	8/11/2019	
15	Traces (inclined to both planes)	8/11/2019	
UNIT-IIIPROJECTIONS OF PLANES **CO3:Able to identify the different plans and draw the projections of the plane inclined to both the planes.** **TB:"Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.**			
16	Projection of plane (parallel to one plane and perpendicular to other plane)	12/11/2019	Lecture interspersed with discussions
17	Projection of plane (parallel to one plane and inclined to other plane)	12/11/2019	
18	Projection of plane (inclined to both plane)	18/11/2019	
19	Projection of plane (inclined to both plane)	19/11/2019	
UNIT-IV PROJECTIONS OF SOLIDS **CO4:Able to identify the basic solids and draw the projections of the solids inclined to one of the planes.** **TB:"Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers,**			

2nd Edition – 2015.			
20	Projection of solids (Prisms, Cylinder)	25/11/2019	Lecture interspersed with discussions
21	Projection of solids (Prisms, Cylinder)	26/11/2019	
22	Projection of solids (Pyramids, cone)	29/11/2019	
23	Projection of solids (Pyramids, cone)	2/12/2019	
UNIT-V ISOMETRIC PROJECTIONS			
CO5:Able to represent and convert the isometric view to orthographic view and orthographic view to isometric view.			
TB:"Engineering Drawing", by Agarwal & Agarwal, Tata McGraw Hill Publishers, 2nd Edition – 2015.			
24	Conversion of isometric views to orthographic views	3/12/2019	Lecture interspersed with discussions
25	Conversion of isometric views to orthographic views	9/12/2019	
26	Conversion of isometric views to orthographic views	10/12/2019	
27	Conversion of orthographic views to isometric views	16/12/2019	
28	Conversion of orthographic views to isometric views	17/12/2019	

29/2/20

Signature of Faculty

29/2/2020

Signatureof HODDate:

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TENTATIVE LESSON PLAN: ES1112
FUNDAMENTALS OF COMPUTER SCIENCE

Course Title: FUNDAMENTALS OF COMPUTER SCIENCE (ES1112)		
Section: IT	**Date:** 04/11/2020	**Page No:** 1 to 2
Revision No: 00	**Prepared By:** M.SURESH BABU	**Approved By:** HOD
Tools: Black board, PPTs, and Online		

S. No.	Topic	Date	Mode of Delivery
UNIT-I	**INTRODUCTION COMPUTER STUDIES**		
CO1: Explain the concepts of computers and classify based on type and generation.			
TB1: An Introduction to Computer studies –Noel Kalicharan-Cambridge.			
1	A Simple Computer System: Central processing unit,	**From: 26/08/19**	Lecture interspersed with discussions
2	the further need of secondary storage,		
3	Types of memory,		
4	Hardware, Software and people.		
5	Peripheral Devices: Input, Output and storage,		
6	Data Preparation, Factors affecting input,		
7	Input devices, Output devices,	**To: 12/09/19**	
8	Secondary devices,		
9	Communication between the CPU and Input/ Output devices. (Text Book 1)		
UNIT-II	**PROBLEM SOLVING AND PROGRAMMING**		
CO2: Demonstrate the techniques of writing algorithms pseudo codes & schematic flow of logic in software development process.			
TB1: An Introduction to Computer studies –Noel Kalicharan-Cambridge.			
10	Flowcharts	**From: 13/09/19**	Lecture interspersed with discussions
11	Looping		
12	some programming features		
13	Pseudo code, the one-zero game		
14	some structured programming concepts		
15	Documents		
16	Tutorial		
17	Programming Languages: Machine Language and assembly language		
18	high -level and low level languages,	**To: 26/09/19**	
19	Don't – Care Conditions		
20	Products of Sum Simplification		
21	Sum of Products Simplification		
22	Assemblers,		
23	Compilers, and Interpreters		
UNIT-III	**COMPUTER NETWORKS**		
CO3: 1.Teach about the purpose of networks and types of networks and media to connect the computers 2. Teach about Operating Systems and its concepts.			
TB2: Fundamentals of Computers –Reema Thareja-Oxford higher education			
24	**Computer Networks :** Introduction to computer Networks, Network topologies-Bus topology, star topology, Ring topology, Mesh topology, Hybrid topology,		
25	Types of Networks: Local area Network, Wide Area Networks,		

	Metropolitan Networks, Campus/ Corporate Area Network, Personal Area Network,	From: 27/09/19 To: 05/11/19	Lecture interspersed with discussions
26	Network Devices- Hub, Repeater, Switch, Bridge, Router, Gateway, Network interface Card, Open System Inter connection Model (Text Book 2)		
27	**Operating systems:** Introduction, Evolution of operating systems,		
28	Process Management- Process control block, Process operations, Process scheduling, Command Interpreter,		
29	Popular operating systems- Microsoft DOS, Microsoft Windows, UNIX and Linux. (Text Book 2)		
UNIT-IV DATABASE SYSTEMS, COMPUTER SYSTEMS AND DEVELOPMENT **CO4:** Illustrate about database architecture and its components. **TB1: An Introduction to Computer studies –Noel Kalicharan-Cambridge.** **TB2: Fundamentals of Computers –Reema Thareja-Oxford higher education.**			
32	File-Oriented Approach, Database-oriented Approach	From: 6/11/19 To: 26/11/19	Lecture interspersed with discussions
33	Components of Database system, Advantages & Disadvantages of Database approach, Applications of Database systems,		
34	Database views, Three-schema architecture, Database models-Hierarchical model, Network Model, relational Model, Object-oriented Data Model,		
35	Components of database management systems, Retrieving Data through Queries (Text Book 2)		
36	Investigation, Analysis, Design, system processing and general program design,		
37	Presentation to management and users, Implementation, Documents. (Text Book 1).		
UNIT-V EMERGING COMPUTER TECHNOLOGIES, WIRELESS NETWORKS **CO5:** Illustrate about distributed computing, peer to peer, grid, cloud on demand and utility computing **TB2: Fundamentals of Computers –Reema Thareja-Oxford higher education.**			
38	Distributed Networking, Peer-to-peer Computing, Categorization of Peer-to-peer system Applications of Peer-to-peer networks	From: 27/11/19 To:21/12/19	Lecture interspersed with discussions
39	Grid Computing-components of Grid computing, Applications of Grid computing,,		
40	Cloud Computing-characteristics of cloud computing systems, cloud computing services, cloud computing architecture, cloud computing applications, Cloud computing concerns		
41	Wireless network operations, Types of wireless networks, security in wireless Networks, Limitations of wireless Networks		
42	Bluetooth – Bluetooth Piconets, Avoiding Interference in Bluetooth Devices, Bluetooth Security, Differences between Bluetooth and Wireless Networks. (Text Book 2)		

TB1: An Introduction to Computer studies –Noel Kalicharan-Cambridge.
TB2: Fundamentals of Computers –Reema Thareja-Oxford higher education.

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