

Name of Faculty:- Dr. Naynort Ahluwari / Dr. SK Malik
 Discipline:- Applied Science
 Semester:- 2nd
 Subject:- Physics

Lesson Plan duration:- 29 January 2017 to 30 April 2017

Week	Theory		Practical	
	Lecture Day	Topic (including assignments/ test)	Practical Day	Experiment
1	1	Atomic magnetic momentum and orbital diamagnetism	1	Find the low resistance by carry-Forster's bridge
	2	classical theory of ferromagnetism/paramagnetism		
	3	molecular field and domain hypothesis		
	4	Problems		
2	5	photoconductivity in insulating crystal, variation in	2	Find the resistance of a galvanometer by Thomson's constant deflection method using a post office box
	6	Effects of traps and application of photo conductivity		
	7	Photo voltaic cells, solar cell and its characteristics		
	8	Problem if any or test		
3	9	Feature of hole system and concepts of quantum dot	3	Find the value of high resistance by substitution method
	10	Quantum dots and its application		
	11	Elements of classical free electron theory and its limitation		
	12	drude theory, quantum theory of free electron		
4	13	Fermi level, density of state Fermi dirac distribution	4	Find the characteristics of a solar cell and to find IRL factor
	14	Thermionic emission and Richardson		
	15	problems		
	16	test		
5	17	space lattice and cell T vector	5	Find the value of e/m for electron by helical method
	18	Miller indices, simple crystal structure		
	19	Bragg law, powder method defects		
	20	ion, and free, defects bonding in solids		
6	Satsorial Exams			
7	21	difficulty of classical physics and intro. Of Quant. Mech.	6	Find the ionisation potential of argon/mercury using a Rutherford tube
	22	Planck's constant and black body radiation		
	23	phase velocity and group velocity		
	24	sch. Wave equation and expectation value		
8	25	her. Theorem, particle in one dim. Ha	7	to study the variation of magnetic field with distance and to find the radius Stewart and GEE's apparatus
	26	Quan. Statistics and F.D. and elementary idea of Dirac		
	27	Problem		
	28	Test		
9	29	Origin of energy band E-F model	8	Find the value of Planck's constant method using a photoelectric cell
	30	E-K diagram		
	31	Brill. zones, concepts of effective mass and holes		
	32	Classification of solids		
10	33	Free energy and its variation with temp., rate effects and problem	9	To study the V-I Characteristics of a diode
	34	problem		
	35	test		
	36	revision		
11	37	revision with problems	10	To find the band gap of intrinsic semiconductor using 4 probe method
	38	revision with problems		
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12	41		11	
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	44			
13	Pre-University Exams			

Kashmi

Name of Faculty:- Sanju / Dr. Manju Hooda

Discipline:- Applied Science

Semester:- 2nd

Subject:- Chemistry

Lesson Plan duration:- 29 January 2017 to 30 April 2017

week	Theory		Practical	
	Lecture Day	Topic (Including assignment/ test)	Practical Day	Experiment
1	1	Catalysis and type of Catalysis	1	To determine flash point fire point of an oil by Pensky Marten's flash point apparatus
	2	Autocatalyzed catalysis and characteristics of catalysis		
	3	Mechanism (theory) of catalysis		
	4	Enzymes catalysis and Characteristics of Enzymes catalysis		
2	5	Theory/mech. Of Enzymes catalysis	2	Determination of viscosity of lubricant by Red Wood viscosity
	6	Source of water, Hardness of water. Types of Hardness		
	7	Determination of Hardness Soap solution method, EDTA Method		
	8	Alkalinity of water, boiler feed water		
3	9	ion exchange, scale and sludge formation and boiler corrosion	3	To prepare Phenol formaldehyde and urea formaldehyde resin.
	10	Corrosion embrittlement, domestic use of water, loggulation sedimentation filtration and disinfection		
	11	Water softing treatment method, ion exchange process, mixed bed demineralisation, Desalination		
	12	Class Test -1st		
4	13	Corrosion and its prevention	4	Determination of alkalinity of water sample.
	14	Mech. Of Dry and wet corrosion		
	15	Factor affecting corrosion		
	16	Preventive measure of corrosion		
5	17	soil corrosion, microbiological corrosion	5	To find out saponification No of oil
	18	general introduction of lubricants		
	19	Mech. Of lubrication, classification of lubrication		
	20	Additive of lubricant properties of lubricants		

Rashmi

6		Sessional Exams		
7	21	Polymer Biodegradable polymer	6	Determination of Ca^{++} and Mg^{++} hardness of water using EDTA solution
	22	Types of Polymer, Addition polymer		
	23	Condensation polymer their preparation and properties and uses.		
	24	Principle and application thermal method analysis		
8	25	Basic concept of spectroscopy, Lambert and Beer's law	7	Determination of dissolved oxygen (DO) in the given water sample
	26	Absorption emission spectroscopy		
	27	Different spectroscopy technique		
	28	Class Test		
9	29	Phase rule and degree of freedom	8	Determination of strength of HCl solution by titrating against NaOH solution conductometrically.
	30	One component system		
	31	Two component system		
10	32	Simple eutectic system with congruent melting point		
	33	system with incongruent melting point		
	34	Cooling curves		
	35	Revision		
11	36	Revision		
	37	Revision		
	38	Revision		
	39	Revision		
12	40	Revision		
	41	Revision		
	42	Revision		
13	43	Revision		
	44	Revision		
13		Pre University Exams		

Rashid

Name of Faculty: Garima Hooda
 Discipline: Applied Science
 Semester: 4th
 Subject: Engineering Economics
 Lesson Plan duration: 29 January 2017 to 30 April 2017

Week	Theory		Practical	
	Lecture Day	Topic (including assignment/ test)	Practical Day	Examination
1	1	Definition of Economics - various definitions)	1	
	2	Production possibility curve		
	3	Nature of Economic problem,		
	4	Economic uses and their nature,		
	5	Relation between Science, Engineering,		
2	6	Concepts and measurement of utility, Law of	2	
	7	Diminishing Marginal Utility, Law of equi marginal		
	8			
3	9	Meaning of Demand, Individual and Market demand	3	
	10	schedule, Law of demand, shape of		
	11	demand curve, Elasticity of demand,		
	12			
4	13	factors affecting elasticity of demand; practical importance & applications of the concept of	4	
	14			
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	16			
5	17	Meaning of production and factors of production, Law of variable proportions, Returns to scale	5	
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6	Sessional Exams			
7	21	Various concepts of Cost - Fixed cost, variable cost, average cost, marginal cost, money cost, real cost opportunity cost. Shape of average cost, marginal cost, total cost.	6	
	22			
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8	26	Meaning of Market, Types of Market - Perfect Competition, Monopoly, Oligopoly, monopolistic competition	7	
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	28			
	29			
9	30	Supply and Law of Supply, Role of Demand & Supply in Price Determination and effect of demand and supply	8	
	31			
	32			
	33			
10	34	Nature and characteristics of Indian economy (brief and elementary introduction) Privatization - meaning, merits and demerits, Globalisation of Indian economy - merits, Elementary Concepts of VAT, WTO, GATT & TRIPS agreement.	9	
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11	38	revision with problems	10	
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13	Eng University Exams			

Reshma

Name of Faculty:-		Rashmi / Dr. Prem Singh Ahlawat
Discipline:-		Applied Sciences
Semesters:-		2nd
Subject:	HUM-102P	COMMUNICATION SKILLS IN ENGLISH
Week	Lecture Day	Theory Topic (including assignment/ test)
SECTION - A		
1	1,2	Communicative Grammar : Spotting the errors containing no parts of speech; nouns
	3,4	pronouns, adjective, adverbs
2	5	prepositions, conjunction,
	6	orders, infinitive, participles.
3	7	Form of tenses,
	8	use of articles, concord - grammatical
	9,10	concord, notional concord the principle of proximity between subject and verbs and other exceptional cases. Link - adverbial phrases, Words often confused: One word substituted
4	11,12	
	13	Discussion cum Lecture for Section - A (Doubts if any)
	14	Surprise Quiz Test
SECTION - B		
5	15,16	Oral Communication Introduction to principal components of spoken English: Word stress patterns
	17	Intonation, Word forms in English
	18	Developing listening and speaking skills through various activities, such as (a) single play activities, (b) practising short dialogues (c) Group discussion
	19	(d) Debates (e) Speeches (f) Listening to news
	20	Bulletins (g) Viewing and reviewing T.V. programmes etc. Discussion cum Lecture for Section - A (Doubts if any) AND Surprise Quiz Test
6	Sessional Exams	
SECTION - C and SECTION - D		
7 & 8	21,22,23	Written Communication Developing reading and writing skills through such tasks/activities as Developing outlines, key expressions, situations.
	24,25,26	slogan writing and theme building exercises Reading verbal and non-verbal texts like cartoons, Graphs and tabulated data etc.
	27,28	Book Review - Hereon the students will be required to read/present and submit a review of a book (literary or non-literary) of their own choice
9	29,30	Formal Writing (a) Business Letters, Format of Business letters and Business letter
	31	(b) E-mail writing
	32	(c) Reports, Types of Reports and Format of Formal Reports
10	33	(d) Press Report writing
	34,35	Discussion cum Lecture for Section - A (Doubts if any)
	36	Surprise Quiz Test

Rashmi

11	37	Revision of Section - A
	38	Class Test of Section - A
	39	Revision of Section - B
	40	Class Test of Section - B
12	41	Revision of Section - C
	42	Class Test of Section - C
	43	Revision of Section - D
	44	Class Test of Section - D
13	Pre University Exams	

Kashmir

Name of Faculty:- Sonika
 Discipline:- Guest Faculty
 Semester:- 2
 Subject:- Mathematics
 Lesson Plan duration:- 29 January to 30 April

Week	Theory		Practical	
	Lecture Day	Topic (including assignment/ test)	Practical Day	Experiment
1	1	Differentiation of vector, scalar & point function	1	
	2	Gradient of a scalar field & directional derivative		
	3	Divergence and curl of a vector field		
	4	Physical interpretations & integration of vector		
2	5	Assignment on differentiation of vector	2	
	6	Line, Surface & Volume integral		
	7	Green, Stokes theorem		
	8	Gauss theorem and their application		
3	9	Test of unit 1	3	
	10	Equation reducible to exact differential equation		
	11	Applications of differential equation and Newton law of		
4	12	Heat flow & orthogonal trajectories	4	
	13	Assignment on exact differential equation		
	14	Cauchy and inhomogeneous linear equation		
	15	Application of linear differential equation to simple pendulum		
5	16	Oscillatory electric circuits	5	
	17	Complete solution complementary and particular integral		
	18	Presentation on ordinary differential equation & application		
	19	Laplace transform of elementary function		
20	Test of unit 2			
6	Seasonal Exams			
7	21	Properties of Laplace and existence condition	6	
	22	Transform of derivative and integrals		
	23	Evaluation of integrals		
	24	Laplace transform of unit function, unit impulse & periodic f.		
8	25	Hybrid transform & convolution theorem	7	
	26	Application and simultaneous linear differential equation		
	27	Presentation on Laplace transform		
9	28	Application to integral equation	8	
	29	Problem & extra question practice		
10	30	Test of unit 3	9	
	31	Formation of partial differential equation		
	32	Assignment on unit function		
	33	Lagrange linear partial differential equation		
11	34	Charpit method	10	
	35	Method of separation of variables and its application		
	36	Test of unit 3 & 4		
	37	one dimensional heat equation		
12	38	two dimensional heat flow		
	39	Problems and question practice		
	40	Test of unit 4		
13	41	Presentation on partial differential equation		
	42	some extra question practice		
	43	Test of unit 3 & 4		
	44			
13	The University Exams			

Kashvi

Name of Faculty:-	Monika			
Discipline:-	Guest Faculty			
Semester:-	4			
Subject:-	Numerical methods of computational programming lab			
Lesson Plan duration :-	29 January 2018 to 30 April 2018			
Week	Theory		Practical	
	Lecture Day	Topic (including assignment/ test)	Practical Day	Experiment
1	1	Interpolation problem	1	Curve fitting by least square approximation
	2	Lagrange polynomial		
	3	Divided differences formula		
	4	Least square approximation		
2	5	Bisection method	2	To find the roots of non-linear equation using bisection method
	6	Linear interpolation method		
	7	Newton method		
3	8	Muller method	3	To find the roots of non-linear equation using Newton method
	9	Fixed point method		
	10	Elimination method		
	11	Gauss & Gauss Jordan method		
	12	Jacobi method		
4	13	Gauss-Seidel method	4	To solve the system of linear equation using Gauss elimination method
	14	Test of bisection, Newton, Muller, fixed point method		
	15	Relaxation method		
	16	Taylor series method		
5	17	Euler methods	5	To solve the system of linear equation using Gauss-Seidel method
	18	Modified Euler method		
	19	Runge-Kutta method		
	20	Test of elimination, Gauss Jordan, Jacobi, relaxation method		
6		Sectional Exams		
7	21	Writhe method	6	To solve the system of linear equation using Gauss-Jordan method
	22	Adams-Bashforth method		
	23	Power method		
	24	Iteration method		
8	25	Test of power, Taylor series, Euler method	7	To find the largest eigen values of a matrix by power method
	26	Finite differences approximations of partial derivatives		
	27	Finite differences approximations of partial derivatives		
	28	Laplace equation		
9	29	Presentation on power method	8	To find the numerical solution of Laplace equation
	30	Revision Start		
	31	Test of divided differences, least square method		
10	32	Revision of Newton's method	9	To integrate numerically using Simpson's rule
	33	Simpson's rule		
	34	Trapezoidal rule		
	35	Revision		
11	36	Test of Laplace equation, iteration method	10	To integrate numerically using Trapezoidal rule
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12		Pre University Exams		

Name of Faculty:- Garima Hooda
 Discipline:- Applied Science
 Semester:- 4th
 Subject:- Engineering Economics
 Lesson Plan duration:- 29 January 2018 to 30 April 2018.

Week	Theory		Practical	
	Lecture Day	Topic (including assignment/ test)	Practical Day	Experiment
1	1	Definition of Economics - various definitions	1	
	2	Production possibility curve		
	3	Nature of Economic problem,		
	4	Economic laws and their nature.		
2	5	Relation between Science, Engineering,	2	
	6	Concepts and measurement of utility, Law of		
	7	Diminishing Marginal Utility, Law of equi marginal		
3	8		3	
	9	Meaning of Demand, Individual and Market demand		
	10	schedule, Law of demand, shape of		
4	11	demand curve, Elasticity of demand,	4	
	12			
	13	factors effecting elasticity of demand, practical		
	14	importance & applications of the concept of		
5	15		5	
	16	Meaning of production and factors of production;		
	17	Law of variable proportions, Returns to scale		
	18			
6	19			
	20			
		Sessional Exams		
7	21		6	
	22	Various concepts of cost - Fixed cost, variable cost,		
	23	average cost, marginal cost,		
	24	money cost, real cost opportunity cost. Shape of		
8	25		7	
	26	Meaning of Market, Types of Market - Perfect		
	27	Competition, Monopoly, Oligopoly, monopolistic		
	28	competition		
9	29		8	
	30	Supply and Law of Supply, Role of Demand & Supply in		
	31	Price Determination and effect of demand and supply		
	32	Problem		
10	33		9	
	34	Nature and characteristics of Indian economy (brief and		
	35	elementary introduction), Privatization - meaning,		
	36	merits and demerits, Globalization of Indian economy.		
11	37		10	
	38	Elementary Concepts of VAT, WTO,		
	39	GATT & TRIPS agreement.		
	40	revision with problems		
12	41		11	
	42			
	43			
	44			
13		Pre University Exams		

Garima Hooda
 29/1/18