

BPS Mahila Polytechnic, Khanpur Kalan

Lesson Plan(Analog Electronics- 2nd Semester Computer Engg. Department)

Name of Faculty : Dr, Sanjiv Kumar

Semester : 2nd

Subject : Analog Electronics

Lesson Plan : 15 Weeks

Week	Theory		Practical	
	Lecture Day	Topic (including assignment / test)	Practical Day	Topic
1	1st Day	Semiconductors and Diodes: Electrons- free and valence. Conductors, Insulators, and Semiconductors- definition & energy band diagrams. Properties of semiconductors.	1st	Familiarity with working knowledge of the following Instruments. (a) CRO (b) Multimeter (c) Function generator (d) Regulated power supply (e) Active passive components (f) Bread Board
	2nd Day	Meaning of Hole current, electron-hole pairs, recombination, doping, acceptor and donor impurities. Intrinsic and Extrinsic, N and P type semiconductors.		Familiarity with working knowledge of the following Instruments. (a) CRO (b) Multimeter (c) Function generator (d) Regulated power supply (e) Active passive components (f) Bread Board
2	3rd Day	Diode- formation, depletion region, VI Characteristics, ratings, types and applications.	2nd	Study of V-I Characteristics of a Diode.
	4th Day	Zener diode- reverse bias characteristics, voltage regulation, shunt voltage regulator, and applications.		Study of V-I Characteristics of a Diode.
3	5th Day	Varistor and Thermistor working and applications.	3rd	1.Study and draw the characteristics of half wave and full wave rectifiers. 2.Study and draw the characteristics of rectifier filter circuit.
	6th Day	Revision of Unit-1 & Assignment-1		1.Study and draw the characteristics of half wave and full wave rectifiers. 2.Study and draw the characteristics of rectifier filter circuit.
4	7th Day	Sessional Exam-1st(Tentative)	4th	Study of Clipping & Clamping circuit.
	8th Day	Transistors and MOSFETs: Transistors- definition, terminals, types, symbols, formation of NPN and PNP, ratings.		Study of Clipping & Clamping circuit.
5	9th Day	Transistor biasing- definition, importance, list types, stabilisation, thermal runaway, heat sink, and voltage divider method.	5th	1. Study zener diode characteristics. 2.Study zener diode as voltage regulator.
	10th Day	List configurations and applications. Alpha and Beta- definitions, relation. CE input and output characteristics- cut off, saturation, and active regions. Transistor as a switch. List applications.		1. Study zener diode characteristics. 2.Study zener diode as voltage regulator.
6	11th Day	FET- definition, types. MOSFET- definition, types, symbols. N type enhancement mode- construction, working, characteristics, switch.	6th	Study the characteristics of transistor in Common Base configuration.
	12th Day	List applications and ratings. Differentiate BJT and MOSFET.		Study the characteristics of transistor in Common Base configuration.
7	13th Day	Rectifiers, filters and regulators: Regulated power supply- block diagram and applications.	7th	Plot and study the input and output characteristics of BJT in common emitter configuration.
	14th Day	Rectifiers- definition, half wave, centre tapped and bridge full wave rectifier, efficiency, ripple factor, PIV, ratings.		Plot and study the input and output characteristics of BJT in common emitter configuration.
8	15th Day	Filters- definition, necessity, C and PI filters, Regulator-definition, working of 7805, operating voltages- 7809, 7812, 7905, 7912.	8th	Graphical determination of small signal hybrid parameter of BJT.
	16th Day	Revision of Unit-2 & 3 & Assignment-2		Graphical determination of small signal hybrid parameter of BJT.

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Week	Theory		Practical	
	Lecture Day	Topic (including assignment / test)	Practical Day	Topic
9	17th Day	Sessional Exam-2nd(Tentative)	9th	Study and draw the characteristics of FET in common source configuration
	18th Day	Amplifiers and Oscillators: Amplifier- definition, faithful amplification, classification based on configuration, power, and frequency.		Study and draw the characteristics of FET in common source configuration
				Study and draw the characteristics of FET in common source configuration
10	19th Day	Transistor CE amplifier with biasing. Working of class A, B, C, and Push pull amplifier.	10th	Study characteristics of SCR.
	20th Day	dB, frequency		Study characteristics of SCR.
				Study characteristics of SCR.
11	21st Day	Feed back- definition, types, advantages and disadvantages, applications.	11th	Study of characteristics of DIAC.
	22nd Day	Oscillators- definition, classification, LC tank circuit, criteria.		Study of characteristics of DIAC.
				Study of characteristics of DIAC.
12	23rd Day	RC phase shift and crystal oscillator- working, applications. CRT- construction, working and applications.	12th	Plot V-I characteristic of TRIAC.
	24th Day	OP-AMP and Timers: OPAMP– definition, block diagram, operation, characteristics, applications, μA 741 pin diagram.		Plot V-I characteristic of TRIAC.
				Plot V-I characteristic of TRIAC.
13	25th Day	Definitions of virtual ground, CMRR and Slew rate.	13th	Study and draw the characteristics of FET in common drain configuration.
	26th Day	OPAMP applications– inverting, integrator, differentiator, summer, voltage follower, and comparator.		Study and draw the characteristics of FET in common drain configuration.
				Study and draw the characteristics of FET in common drain configuration.
14	27th Day	Filters- definition, Working- low pass, high pass passive and active filters, applications.	14th	Study the Series and Shunt Voltage Regulator.
	28th Day	Timers–block diagram, pin diagram of 555, duty cycle, time constant, applications. Multi-vibrators- Astable and monostable using 555.		Study the Series and Shunt Voltage Regulator.
				Study the Series and Shunt Voltage Regulator.
15	29th Day	Revision of Unit-4 & 5 & Assignment-3	15th	Study of frequency response of active filters HP, LP & BP.
	30th Day	Sessional Exam-3rd (Tentative)		Study of frequency response of active filters HP, LP & BP.

BPS Mahila Polytchnic, Khanpur Kalan

Lesson Plan

Name of the Faculty Ms. Shefali
 Discipline ELECTRONICS AND COMMUNICATION
 Semester 2nd
 Subject ENGINEERING GRAPHICS
 Lesson Plan Duration 15 WEEKS
 Work Load per week 6 PRACTICAL

Week	Practical Day	Topic
1st	1st(3 HRS)	Introduction to use and care of drawing instruments, drawing materials, layout and sizes of drawing sheets and drawing boards.
	2nd(3HRS)	Symbols and conventions
2ND	3rd(3 HRS)	Geometrical construction-geometrical figures such as triangles, rectangles, circles, ellipses and curves
	4th(3HRS)	hexagons, pentagons bisecting a line and arc , division of line and circle with the help of drawing instrument
3rd	5th	Technical Lettering of Alphabet and Numerals
	6TH	Technical Lettering of Alphabet and Numerals
4th	7th	Necessity of dimensioning, method and principles of dimensioning
	8th	Dimensioning of overall sizes, circles, threaded holes, chamfered surfaces, angles, tapered surfaces, holes
5th	9th	equally spaced on P.C.D., countersunk holes, counter bored holes, cylindrical parts, narrow spaces and gaps, radii, curves and arches
	10th	Scales –Needs and importance (theoretical instructions), Type of scales, Definition of R.F and length of scale
6th	11th	To draw/construct plain and diagonal scales.
	12th	Theory of orthographic projections (Elaborate theoretical instructions).
7th	13th	Three views of orthographic projections of different objects of given pictorial view of a block in 1st and 3rd angle
	14th	Projection of Points in different quadrant projection of straight line
8th	15th	Projection of Plane

8th	16th	Identification of surfaces.
9th	17th	Sectioning Importance and salient features
	18th	Drawing of full section, half section, partial or broken out sections,
10th	19th	Offset sections, revolved sections and removed sections (theoretical only)
	20th	Orthographic sectional views of different objects
11th	21st	Introduction of projection of right solids
	22nd	Development of Surfaces
12th	23rd	Fundamentals of isometric projections and isometric scale
	24th	Isometric views of different laminas like circle, pentagon and hexagon
13th	25th	Isometric views of different regular solids like cylinder, cone, cube, cuboid, pyramid and prism
	26th	Isometric views from given different orthographic projections(front, side and top view)
14th	27th	Basic introduction and operational instructions of various commands in AutoCAD.
	28th	revision
15th	29th	revision
	30th	revision

Lesson Plan

Environmental Studies And Disaster Management

Week	Theory/Practical	
	Lecture Day	Topic Including(assignment/Test)
Ist	1	Unit1:- Introduction Basics of Ecology , Eco system Concept and sustainable development
	2	Sources ,advantages ,disadvantages of renewable and non-renewable energy
IIInd	1	Rain Water Harvesting
	2	Deforestation – its effects and control measures
IIIrd	1	Unit2:- Air and Noise Pollution Air Pollution: Source of Air Pollution
	2	Effect of Air Pollution on Human Health, Economy, Air Pollution control Methods
IVth	1	Noise Pollution: Sources of Noise Pollution, unit of noise ,Effect of Noise Pollution, Acceptable Noise Level, different Methods of minimizing Noise Pollution
	2	Revision of Above topics
Vth	1	Unit3:- Water and Soil Pollution Water Pollution: Impurities in water, Cause of water Pollution
	2	Sources of water Pollution. Effect of water pollution on human health
VIth	1	First Sessional Test(Tentative)
	2	First Sessional Test(Tentative)
VIIth	1	Concept of DO ,BOD, COD
	2	Prevention of water Pollution- water treatment processes
VIIIth	1	Sewage treatment ,Water quality standard
	2	Soil Pollution: Sources of soil Pollution
IXth	1	Effect and control of soil pollution
	2	Type of solid waste- House hold, Industrial, Agricultural, Bio-Medical, Disposal of Solid waste.
Xth	1	Solid waste management E-waste ,E-waste management
	2	Unit4:- Impact of Energy Usage on Environment Global Warming ,Green House Effect , Depletion of Ozone Layer
XIth	1	Second Sessional Tests(Tentative)
	2	Second Sessional Tests(Tentative)
XIIth	1	Acid Rain .Eco Friendly Material, Recycling of Material, Concept of Green Building
	2	Concept of Carbon credit and Carbon Foot Print
XIIIth	1	Unit5:- Disaster Management A Different type of Disaster ,Natural Disasters such as Flood ,Cyclone ,Earth Quake and Landslides etc.
	2	Manmade Disasters such as Fire, Industrial Pollution, Nuclear Disasters, biological Disasters.

XIVth	1	Accidents(Air , Sea Rain and Road) , Structural Failures (Building and Bridges) , War and Terrorism
	2	B Disaster Preparedness Disaster Preparedness plan : Prediction ,Early warnings and safety measures of Disaster Psychological Response and Management (Trauma, Stress, Rumour and Panic)
XVth	1	Third Sessional Test(Tentative)
	2	Third Sessional Test(Tentative)
XVIth	1	Revision of above Syllabus
	2	Revision of above Syllabus

Lesson Plan (2nd Semester)

Mathematics

Week	Theory/Practical	
	Lecture Day	Topic Including(assignment/Test)
Ist	1	Introduction to syllabus and evaluation scheme Unit1:- Differential Calculus 1.1 Definition of function: Concept of limits (Introduction only) and problems related to four standard limits only.
	2	1.1 Definition of function: Concept of limits (Introduction only) and problems related to four standard limits only.
	3	1.1 Definition of function: Concept of limits (Introduction only) and problems related to four standard limits only.
	4	1.2 Differentiation of x^n , $\sin x$, $\cos x$, e^x by first principle.
IInd	1	1.3 Differentiation of sum, product and quotient of functions.
	2	1.3 Differentiation of sum, product and quotient of functions.
	3	1.3 Differentiation of sum, product and quotient of functions.
	4	Unit 2 Differential Calculus and Its Application 2.1 Differentiation of trigonometric functions, inverse trigonometric function, Logarithmic differentiation, successive differentiation (upto 2^{nd} order)
IIIrd	1	2.1 Differentiation of trigonometric functions, inverse trigonometric function, Logarithmic differentiation, successive differentiation (upto 2^{nd} order)
	2	2.1 Differentiation of trigonometric functions, inverse trigonometric function, Logarithmic differentiation, successive differentiation (upto 2^{nd} order)
	3	2.1 Differentiation of trigonometric functions, inverse trigonometric function, Logarithmic differentiation, successive differentiation (upto 2^{nd} order)
	4	2.2 Application of differential calculus in: (a) Rate measure (b) Maxima and minima
IVth	1	2.2 Application of differential calculus in: (a) Rate measure (b) Maxima and minima
	2	2.2 Application of differential calculus in: (a) Rate measure (b) Maxima and minima
	3	Revision
	4	Unit 3 Integral Calculus 3.1 Integration as inverse operation of differentiation with simple examples.
Vth	1	First Sessional Test(Tentative)
	2	First Sessional Test(Tentative)
	3	First Sessional Test(Tentative)
	4	3.1 Integration as inverse operation of differentiation with simple examples.
VIth	1	3.1 Integration as inverse operation of differentiation with simple examples.
	2	3.2 Simple standard integrals and related problems, Integration by Substitution method and integration by parts.
	3	3.2 Simple standard integrals and related problems, Integration by Substitution method and integration by parts.
	4	3.3 Evaluation of definite integrals with given limits. Evaluation of $\int_0^{\pi/2} \sin^n x \cdot dx$, $\int_0^{\pi/2} \cos^n x \cdot dx$, $\int_0^{\pi/2} \sin^m x \cos^n \cdot dx$, Using formula without proof (m and n being positive integers only) using pre-existing mathematical models.
VIIth	1	3.3 Evaluation of definite integrals with given limits. Evaluation of $\int_0^{\pi/2} \sin^n x \cdot dx$, $\int_0^{\pi/2} \cos^n x \cdot dx$, $\int_0^{\pi/2} \sin^m x \cos^n \cdot dx$,

		Using formula without proof (m and n being positive integers only) using pre-existing mathematical models.
	2	Unit4:- Application of Integration, Numerical Integration and Differential Equations 4.1 Application of integration for evaluation of area under a curve and axes (Simple problems).
	3	4.1 Application of integration for evaluation of area under a curve and axes (Simple problems).
	4	4.2 Numerical of integration by Trapezoidal rule and Simpson's 1/3 rd Rule using pre-existing mathematical models.
VIIIth	1	4.2 Numerical of integration by Trapezoidal rule and Simpson's 1/3 rd Rule using pre
	2	Differential, Equations 4.3 Definition, order, degree, Type of differential Equation, Linearity, Formulation of ordinary differential equation (up to 1 st order), solution of ODE (Ist order) by variable separation method.
	3	4.3 Definition, order, degree, Type of differential Equation, Linearity, Formulation of ordinary differential equation (up to 1 st order), solution of ODE (Ist order) by variable separation method.
	4	Revision
IXth	1	Second Sessional Test(Tentative)
	2	Second Sessional Test(Tentative)
	3	Second Sessional Test(Tentative),.
	4	4.3 Definition, order, degree, Type of differential Equation, Linearity, Formulation of ordinary differential equation (up to 1 st order), solution of ODE (Ist order) by variable separation method.
Xth	1	Unit 5 Statistics and Software:- Statistics 5.1 Measures of Central Tendency: Mean, Median, Mode
	2	5.1 Measures of Central Tendency: Mean, Median, Mode
	3	5.2 Measures of Dispersion: Mean deviation, Standard deviation
	4	5.2 Measures of Dispersion: Mean deviation,Standard Deviation
XIth	1	5.2 Measures of Dispersion: Mean deviation,Standard Deviation
	2	Software 5.3 Sci lab Software- Theoretical Introduction.
	3	5.3 Sci lab Software- Theoretical Introduction.
	4	5.4 Basic difference between MATLAB and Sci Lab Software,
XIIth	1	5.4 Basic difference between MATLAB and Sci Lab Software,
	2	5.5 Calculations with MATLAB or Sci Lab – (a) Representation of matrix (2*2 order), (b) Additional , Subtraction of matrices (2*2 order) in MATLAB or Sci Lab
	3	5.5 Calculations with MATLAB or Sci Lab – (a) Representation of matrix (2*2 order), (b) Additional , Subtraction of matrices (2*2 order) in MATLAB or Sci Lab
	4	Revision
XIIIth	1	Third Sessional Test (Tentative).
	2	Third Sessional Test (Tentative).
	3	Third Sessional Test (Tentative).
	4	Revision
XIVth	1	Revision
	2	Revision
	3	Revision
	4	Revision
XVth	1	Revision
	2	Revision
	3	Revision
	4	Revision

Lesson Plan

Physics (2nd Semester)

Week	Theory		Practical	
	Lecture Day	Topic(Including Assignments)	Practical Day	Topic
1st	1	Unit1:- Wave Motion and its Applications 1.1 Waves: Definition ,types(mechanical and electromagnetic wave) 1.2 Wave Motion- transverse and longitudinal with examples, terms used in wave motion like displacement,amplitude,time period,frequency,wave length,wave velocity,relationship among wave velocity,frequency and wave length	1	1) Familiarization with apparatus (resistor, rheostat, key ammeter, voltmeter, telescope, microscope etc. (Group-1)
	2	1.3 Simple Harmonic Motion(SHM): Definitions , Examples 1.4 Cantilever : Definitions , Formula of Time Period(Without Derivation)	2	1) Familiarization with apparatus (resistor, rheostat, key ammeter, voltmeter, telescope, microscope etc. (Group-2)
2nd	1	1.5 Free, forced and resonant vibrations with examples. 1.6 Sound waves: Types (infrasonic, audible, ultrasonic) on the basis of frequency, noise, coefficient of absorption of sound, echo	1	2) To find the time period of a simple pendulum. (Group-1)
	2	Unit2:- Optics:- 2.1 Reflection and refraction of light with laws, refractive index 2.2 Lens: Introduction, lens formulae (no derivation), power of lens and simple numerical problems	2	2) To find the time period of a simple pendulum. (Group-2)
3rd	1	2.3 Total internal reflection and its applications, critical angle and conditions for total internal reflection	1	3) To study variation of time period of simple pendulum with change in length of pendulum.(Group-1)
	2	2.4 Superposition of waves (concept only), definition of interference, diffraction and polarization of waves	2	3) To study variation of time period of simple pendulum with change in length of pendulum. (Group-2)

4th	1	2.5 Introduction of Microscope, Telescope and their applications	1	4) To determine and verify the time period of Cantilever (Group-1)
	2	Revision of above topics	2	4) To determine and verify the time period of Cantilever.(Group-2)
5th	1	First Sessional Test(Tentative)	1	Revision and Viva-voce (Group-1)
	2	First Sessional Test(Tentative)	2	Revision and Viva-voce (Group-2)
6th	1	UNIT3:- Electrostatics and Electricity 3.1 Electric charge, unit of charge, conservation of charge	1	5) To verify Ohm's laws by plotting a graph between voltage and current (Group-1)
	2	3.2 Coulomb's law of electrostatics Assignment 1	2	5) To verify Ohm's laws by plotting a graph between voltage and current (Group-2)
7th	1	3.3 Electric field, electric lines of force (definition and properties), electric field intensity due to a point charge 3.4 Definition of electric flux, Gauss law (statement and formula)	1	6) To study colour coding scheme of resistance. (Group-1)
	2	3.5 Capacitor and capacitance (with formula and unit) 3.6 Electric current and its SI Unit, direct and alternating current	2	6) To study colour coding scheme of resistance. (Group-2)
8th	1	3.7 Resistance, conductance (definition and unit) 3.8 Series and parallel combination of resistances	1	7) To verify laws of resistances in series combination (Group-1)
	2	3.9 Ohm's law (Statement and formula) Assignment 2	2	7) To verify laws of resistances in series combination (Group-2)
9th	1	Second Sessional Test(Tentative)	1	Revision and Viva-voce (Group-1)
	2	Second Sessional Test(Tentative)	2	Revision and Viva-voce (Group-2)
10th	1	Unit 4 Classification of Materials and their Properties 4.1 Definition of energy level, energy bands 4.2 Types of materials (conductor, semiconductors (introduction only)	1	8) To verify laws of resistance in parallel combination .(Group-1)

	2	4.3 Introduction to magnetism, type of magnetic materials: Diamagnetic, paramagnetic and ferromagnetic materials with examples 4.4 Magnetic field, magnetic lines of force, magnetic flux 4.5 Electromagnetic induction (definition)	2	8) To verify laws of resistance in parallel combination.(Group-2)
11th	1	Unit5 Modern Physics 5.1 Laser: Introduction, principle, absorption, spontaneous emission, stimulated emission population inversion 5.2 Engineering and medical applications of laser	1	9) To find resistance of galvanometer by half deflection method (Group-1)
	2	5.3 Fibre optics: Introduction to optical fibers (definition, principle and parts), light propagation, fiber types (mono-mode, multi-mode), applications in medical, telecommunication and sensors.	2	9) To find resistance of galvanometer by half deflection method (Group-2)
12th	1	5.4 Nanotechnology: Introduction, definition of nanomaterial's with examples, properties at nano scale, applications of nanotechnology (brief)	1	10) To verify laws of reflection of light using mirror (Group-1)
	2	Assignment 3 and Revision of above topics	2	10) To verify laws of reflection of light using mirror (Group-2)
13th	1	Third Sessional Test(Tentative)	1	Revision and Viva-voce (Group-1)
	2	Third Sessional Test(Tentative)	2	Revision and Viva-voce (Group-2)
14th	1	Revision of above topics	1	11) To verify laws of refraction using glass slab.(Group-1)
	2	Revision of above topics	2	11) To verify laws of refraction using glass slab.(Group-2)
15th	1	Revision of above topics	1	12) To find the focal length of a concave lens, using a convex lens.(Group-1)
	2	Revision of above topics	2	12) To find the focal length of a concave lens, using a convex lens.(Group-2)

Lesson Plan

Name of the Faculty: SAVITA SHARMA
Discipline: Computer Engg.
Semester: 2ND
Subject: MULTIMEDIA APPLICATIONS
Duration: 15 Weeks
Lectures-02, Practical - 04)

		Theory			
Week	Lecture Day	Topic(Including assignment/test)		Practical Day	
1 st	1	Introduction to Multimedia Systems		1 st	Introduction to Multimedia softwares
	2	Concept of Multimedia, History of Multimedia		2 nd	Revise
	3	Multi media hardware and software			
2 nd	1	various classes		3 rd	Practical checking and testing
	2	components,			
	3	Quality criteria		4 th	Installation of various multimedia software like Photoshop,
3 rd	1	and specifications of different capturing devices,		5 th	Practical checking and testing
	2	Communication devices, Storage devices			
	3	Display devices, Elements of Multimedia		6 th	Installation of Flash,
4 th	1	and different multimedia file formats		7 th	Practical checking and testing
	2	Applications of multimedia		8 th	Director or any open source software
	3	Benefits and problems.			
5 th	1	Content and Project Planning, Designing and development		9 th	Practical checking and testing
	2	Planning steps and process,			
	3	Concept of data compression, Text encoding,		10 th	Installing and use of various multimedia devices
6 th	1	Audio encoding techniques,		11 th	Practical checking and testing
	2	Types of images,			
	3	Capturing images using camera/scanner,		12 th	Scanner, Digital camera, web camera
7 th	1	coding techniques for Moving Images, Editing		13 th	Mike and speakers
	2	Editing of images audio, text,			
	3	video and graphics,		14 th	Touch screen

8 th	1	navigation and user interface designing,	15 th	Practical checking and testing
	2	Use of various codes like bar code,		
	3	QR code in multimedia applications.	16 th	Plotter and printers
9 th	1	Using Image Processing Tools	17 th	DVD- Audio CD and Video CD
	2	Photo-shop workshop,		
	3	image editing tools,	18 th	Practical checking and testing
10 th	1	specifying and adjusting colors,	19 th	Reading and writing of different format on CD/DVD
	2	using gradient tools,		
	3	selection and move tools,	20 th	Practical checking and testing
11 th	1	transforming path drawing	21 th	Transporting audio and video files
	2	and editing tools,		
	3	using channels,	22 th	Using various features of Flash
12 th	1	layers,	23 th	Using various features of Photo-shop
	2	filters		
	3	and actions	24 th	Practical checking and testing
13 th	1	Multimedia Authoring Tools	25 th	Making multimedia presentations combining, Flash, Photo-shop such as department profile,
	2	Multimedia Authoring Tools	26 th	
	3	Icon based, Time based,		
14 th	1	Story boarding/scripting	27 th	Making multimedia presentations combining, Flash, Photo-shop such as lesson presentation
	2	and object oriented		
	3	working in macromedia flash,	28 th	Project presentations.
15 th	1	exploring interface, Using selection of PEN tools, Working with drawing and painting tools	29 th	Generation and recognition of bar code
	2	applying color viewing and manipulating time line,		
	3	animating, processing, guiding layers, importing and editing sound and video clips in flash	30 th	QR code using pre built Application / mobile applications.

Lesson Plan

Name of the Faculty : Pooja Sangwan
 Discipline : Computer Engg.
 Semester : 2ND
 Subject : Advances in Information technology
 Lesson Plan Duration : 15 weeks (from Feb 2024 to June 2024)

Work Load (Lecture / Practical) per week (in hours): Lectures-03, Practical-02

Week	Theory		Practical	
	Lecture day	Topic	Practical week	Topic
1 st	1 st	HTML Fundamentals Introduction to HTML- Characteristics of HTML language, Structure of a HTML page. Describing Tags.	1st	1. Creating an HTML document
	2 nd	Viewing HTML document, commonly used web browsers. HTML4 – List of Tags in HTML4, HTML tags.		
	3 RD	Container elements, empty elements. Using tags, Heading, Paragraph, Changing appearance of text (bold, italics, underline, subscript, superscript)		
2 nd	4 TH	center tag, title tag. Changing font size, text color and background, Changing the background color and background of HTML page	2nd	2. Working with Mark up Tags 3. Working with Heading-Paragraphs
	5 th	Top marging, left margin, & nbsp,<hr> and its attributes		
	6 th	Revision		
3 rd	7 th	Test	3rd	4. Working with Text 5. Working with Lists
	8 th	Using list and images: Unordered lists: type attribute. Ordered lists: start attribute, type attribute, value attribute.		
	9 th	Nested lists. Inserting images, aligning an image, centering image, adding border to a image, alternate text,		
4 th	10 th	Setting height and width, adding space around the image. Working with links: Anchor elements, creating hyperlink to a document.	4th	6. Working with Tables and Frames 7. Working with Hyperlinks
	11 th	Internal linking and external linking.		
	12 th	Assignment		
5 th	13 th	Test	5th	8. Working with Images and Multimedia
	14 th	Creating tables: Creating a table, attributes of table tag		

	15 TH	(BORDER, BORDERCOLOR, BGCOLOR, ALIGN, CELLSPACING, CELLPADING, WIDTH) Attributes of table row <tr> and table data <td>		9. Working with Forms and controls.
6 th	16 TH	tag (BORDERCOLOR, BGCOLOR, ALIGN, VALIGN, HEIGHT). Row span and Col span. Working with Frames.	6 th	10. Create a HTML form with Name, Password and Confirm Password Write a Java script to validate if Password and Confirm Password field values are same. 11. Write a Java script to animate a simple Image using set Timeout.
	17 th	Use and creating frames. Introduction to Forms Steps for developing a Website		
	18 th	Assignment		
7 th	19 th	Test	7 th	12. Write a Java script to illustrate auto refreshing in your own Web page. 13. Develop a simple calculator using Java script.
	20 th	Introduction to Scripting Languages,		
	21 st	JavaScript Implementation-ECMAScript-DOM-BOM		
8 th	22 nd	DOM-BOM-Values-Variables-Literals	8 th	14. Write a Java script to illustrate the use of cookies in your own Web page.
	23 rd	DOM-BOM-Constants-Operators		
	24 th	Expressions-Regular Expressions Conditional Branching Statements-		
9 th	25 th	Expressions-Regular Expressions Conditional Branching Statements-	9 th	15. Write a Java script to prompt two integer numbers from the user and display the sum of them.
	26 th	Conditional Looping Statements-Functions		
	27 th	Conditional Looping Statements-Functions		
10 th	28 th	Creating Simple Java Script page-Adding JavaScript page into HTML	10 th	16. Write a Java script to greet the user with “Good Morning” or “Good Afternoon” or “Good Evening” depending on the current time.
	29 th	Assignment		
	30 th	Test		
11 th	31 th	Mapping your HTML- Text Nodes, Attribute Nodes	11 th	17. Generate a Digital Clock using Java script.
	32 th	Accessing the Nodes		
	33 th	Finding an Element by ID-Finding Elements by Tag Name		
12 th	34 th	Finding Elements by Class Name;	12 th	18. Write a Java script to change the background color of the image in definite time intervals
	35 th	Navigating the DOM Tree-Interacting with Attributes		
	36 th	Changing Styles with Class and Id		
	37 th	Font-Table Layout		Revision

13 th	38th	Text Properties- Padding, Borders and Margins	13th	
	39th	Text Properties- Padding, Borders and Margins		
14 th	40th	Revision	14th	Revision
	41th	Revision		
	42th	Revision		
15	43th	Revision	15th	Revision
	44th	Revision		
	45th	Revision		