

## Lesson Plan

Name of the Faculty : Guest Faculty

Discipline : Civil Engg.

Year/Semester : 1<sup>st</sup> Year (Annual System)

Subject : **Applied Mechanics**

Lesson Plan duration : 37 weeks (from 30<sup>th</sup>July, 2018 to 30<sup>th</sup> April, 2019)

Work load per week : Lecture – 02, Practical – 02

Week	Theory		Practical	
	Lecture	Topic (Including assessment/test)	Topic	
1 <sup>st</sup>	1 <sup>st</sup>	<b>Introduction</b> : Concept of engineering mechanics definition of mechanics	1 <sup>st</sup>	Introduction about the Lab and brief discussion over the practical work to be conducted
	2 <sup>nd</sup>	Statics, dynamics.		
2 <sup>nd</sup>	3 <sup>rd</sup>	Different systems of units (FPS, CGS, MKS and SI) and their conversion from one to another.	2 <sup>nd</sup>	Verification of the polygon law of forces using Gravesand's apparatus.
	4 <sup>th</sup>	Simple Numerical Problems, Fundamental Units and Derived Units		
3 <sup>rd</sup>	5 <sup>th</sup>	Concept of rigid body, scalar and vector quantities	3 <sup>rd</sup>	Verification of the polygon law of forces using Gravesand's apparatus.
	6 <sup>th</sup>	<b>Laws of forces</b> : Definition of force, Bow's Notations, types of force		
4 <sup>th</sup>	7 <sup>th</sup>	Point force/concentrated force & Uniformly distributed force, effects of force, characteristics of a force	4 <sup>th</sup>	Checking of Practical File
	8 <sup>th</sup>	Different force systems		
5 <sup>th</sup>	9 <sup>th</sup>	Principle of transmissibility of forces	5 <sup>th</sup>	To verify the forces in different members of jib crane.
	10 <sup>th</sup>	Law of super-position		
6 <sup>th</sup>	11 <sup>th</sup>	Composition and resolution of coplanar concurrent forces, resultant	6 <sup>th</sup>	To verify the forces in

		Force Method of composition of forces		different members of jib crane.
	12 <sup>th</sup>	Laws of forces, triangle law of forces		
7 <sup>th</sup>	13 <sup>th</sup>	Polygon law of forces - graphically, analytically, resolution of forces	7 <sup>th</sup>	Checking of Practical File
	14 <sup>th</sup>	Free body diagram		
8 <sup>th</sup>	15 <sup>th</sup>	Equilibrant force and its Determination	8 <sup>th</sup>	To verify the reaction at the supports of a simply supported beam.
	16 <sup>th</sup>	Lami's theorem		
9 <sup>th</sup>	17 <sup>th</sup>	Simple problems on above topics	9 <sup>th</sup>	To verify the reaction at the supports of a simply supported beam.
	18 <sup>th</sup>	<b>1<sup>st</sup> Internal Assessment Exam</b>		
10 <sup>th</sup>	19 <sup>th</sup>	<b>Assessment</b>	10 <sup>th</sup>	Checking of Practical File
	20 <sup>th</sup>	<b>Moment</b> : Concept of moment		
11 <sup>th</sup>	21 <sup>th</sup>	Moment of a force and units of moment	11 <sup>th</sup>	To find the mechanical advantage, velocity ratio and efficiency in case of an inclined plane.
	22 <sup>th</sup>	Varignon's theorem (definition only)		
12 <sup>th</sup>	23 <sup>th</sup>	Principle of moment and its Applications	12 <sup>th</sup>	To find the mechanical advantage, velocity ratio and efficiency in case of an inclined plane.
	24 <sup>th</sup>	Levers – simple and compound,		
13 <sup>th</sup>	25 <sup>th</sup>	Steel yard, safety valve, reaction at support)	13 <sup>th</sup>	Checking of Practical File
	26 <sup>th</sup>	Parallel forces (like and unlike parallel force) calculating their resultant		
14 <sup>th</sup>	27 <sup>th</sup>	Concept of couple, its properties	14 <sup>th</sup>	<b>1<sup>st</sup> Internal Assessment Exam (Tentative)</b>
	28 <sup>th</sup>	Effects of Couple		
15 <sup>th</sup>	29 <sup>h</sup>	General conditions of equilibrium of	15 <sup>th</sup>	To find the mechanical

		bodies under coplanar forces		advantage, velocity ratio and efficiency of a screw jack.
	30 <sup>th</sup>	Position of resultant force by moment		
16 <sup>th</sup>	31 <sup>th</sup>	Simple problems on the above topics	16 <sup>th</sup>	To find the mechanical advantage, velocity ratio and efficiency of a screw jack.
	32 <sup>th</sup>	<b>Friction</b> : Definition and concept of friction, types of friction		
17 <sup>th</sup>	33 <sup>th</sup>	Force of friction, Limiting Friction	17 <sup>th</sup>	Checking of Practical File
	34 <sup>th</sup>	Laws of static friction		
18 <sup>th</sup>	35 <sup>th</sup>	Coefficient of friction angle of friction, angle of repose	18 <sup>th</sup>	To find the mechanical advantage, velocity ratio and efficiency of worm and worm wheel
	36 <sup>th</sup>	Equilibrium of a body lying on a horizontal plane		
19 <sup>th</sup>	37 <sup>th</sup>	Equilibrium of a body lying on a rough inclined plane Ladder friction	19 <sup>th</sup>	To find the mechanical advantage, velocity ratio and efficiency of worm and worm wheel
	38 <sup>th</sup>	Advantages and Disadvantages of Friction Methods of increasing/decreasing the force of friction.		
20 <sup>th</sup>	39 <sup>th</sup>	Problems	20 <sup>th</sup>	Checking of Practical File
	40 <sup>th</sup>	<b>2nd Internal Assessment Exam</b>		
21 <sup>st</sup>	41 <sup>st</sup>	<b>Centre of Gravity</b> : Concept	21 <sup>st</sup>	To find mechanical advantage, velocity ratio and efficiency of single purchase crab.
	42 <sup>nd</sup>	Definition of Centroid of plain figures		
22 <sup>nd</sup>	43 <sup>rd</sup>	Centre of gravity of Symmetrical solid bodies	22 <sup>nd</sup>	To find mechanical advantage, velocity ratio and efficiency of single purchase crab.
	44 <sup>th</sup>	Difference between Centroid and C.G		
23 <sup>rd</sup>	45 <sup>th</sup>	Determination of Centroid of plain and composite lamina using moment method only	23 <sup>rd</sup>	Checking of Practical

	46 <sup>th</sup>	Centroid of bodies with removed Portion		File
24 <sup>th</sup>	47 <sup>th</sup>	Determination of center of gravity of solid bodies – Cylinder	24 <sup>th</sup>	To find out center of gravity of regular lamina.
	48 <sup>th</sup>	Determination of center of gravity of solid bodies - Cube,		
25 <sup>th</sup>	49 <sup>th</sup>	Determination of center of gravity of solid bodies Cuboid	25 <sup>th</sup>	To find out center of gravity of regular lamina.
	50 <sup>th</sup>	Determination of center of gravity of solid bodies Sphere		
26 <sup>th</sup>	51 <sup>st</sup>	Determination of center of gravity of composite bodies	26 <sup>th</sup>	Checking of Practical File
	52 <sup>nd</sup>	Determination of center of gravity of solid bodies with portion removed		
27 <sup>th</sup>	53 <sup>rd</sup>	Problems of above topic	27 <sup>th</sup>	<b>2<sup>nd</sup> Internal Assessment Exam (Tentative)</b>
	54 <sup>th</sup>	<b>Simple Machines :</b> Definition of Simple and compound machine (Examples)		
28 <sup>th</sup>	55 <sup>th</sup>	Definition of load, effort, velocity ratio, mechanical advantage	28 <sup>th</sup>	To find out center of gravity of irregular lamina
	56 <sup>th</sup>	Efficiency of a machine and their relationship, law of machines		
29 <sup>th</sup>	57 <sup>th</sup>	Definition of ideal machine, reversible and self locking machine	29 <sup>th</sup>	Checking of Practical File
	58 <sup>th</sup>	Effort lost in friction, Load lost in friction.		
30 <sup>th</sup>	59 <sup>th</sup>	Determination of maximum mechanical advantage and maximum efficiency	30 <sup>th</sup>	To find out center of gravity of irregular lamina
	60 <sup>th</sup>	System of pulleys (first, second, third system of pulleys)		
31 <sup>st</sup>	61 <sup>st</sup>	Determination of velocity ratio, mechanical advantage and efficiency	31 <sup>st</sup>	Checking of Practical File
	62 <sup>nd</sup>	Working principle and application of wheel and axle		
32 <sup>nd</sup>	63 <sup>rd</sup>	Weston's Differential Pulley Block	32 <sup>nd</sup>	To determine coefficient of friction between three pairs of given surface
	64 <sup>th</sup>	Simple screw jack		

33 <sup>rd</sup>	65 <sup>th</sup>	Worm and worm wheel	33 <sup>rd</sup>	Checking of Practical File
	66 <sup>th</sup>	Single and double winch crab.		
34 <sup>th</sup>	67 <sup>th</sup>	Expression for their velocity ratio and field of their application of above m/c	34 <sup>th</sup>	To determine coefficient of friction between three pairs of given surface
	68 <sup>th</sup>	Numerical Problems of MA and Efficiency		
35 <sup>th</sup>	69 <sup>th</sup>	Numerical problems of effort lost	35 <sup>th</sup>	Checking of Practical File
	70 <sup>th</sup>	Numerical problems of load lost.		
36 <sup>th</sup>	71 <sup>st</sup>	Numerical problems of pulley 1 <sup>st</sup> and 2 <sup>nd</sup> systems to calculate V.R, M.A and efficiency	36 <sup>th</sup>	Internal Viva
	72 <sup>nd</sup>	Numerical problems of 3 system pulley systems to calculate V.R, M.A and efficiency		
37 <sup>th</sup>	73 <sup>rd</sup>	Revision	37 <sup>th</sup>	Internal Viva
	74 <sup>th</sup>	Revision		

## Lesson Plan

Name of the Faculty : Guest Faculty

Discipline : Civil Engineering

Year/Semester : 1<sup>st</sup> Year-(Annual System) Subject

**: ENGINEERING GRAPHICS**

Lesson Plan duration : 37 weeks (from 30<sup>th</sup>July, 2018 to 30<sup>th</sup> April, 2019)

Work load per week : Lecture – 00, Practical – 03

Week	Practical	
	Practical Day	Topic
1 <sup>st</sup>	1 <sup>st</sup>	<p><b>Unit:-1 Introduction to Engineering Drawing</b>                      Definition of Engineering Drawing, Introduction to drawing instruments, materials, layout and sizes of drawing sheets and drawing boards, engineering graph book, different grades of pencils to be used.                      Different types of lines in engineering drawing as per BIS specifications                      Practice of vertical, horizontal and inclined lines                      Principles of dimensioning: Types, elements, placing, different methods of dimensioning</p>
2 <sup>nd</sup>	2 <sup>nd</sup>	1.5 Practice of geometrical figures such as –triangles, rectangles, circles, ellipses and parabola, hexagonal, pentagon with the help of drawing instruments.
3 <sup>rd</sup>	3 <sup>rd</sup>	Definition and classification of lettering, single stroke vertical and inclined lettering at 75° (alphabet and numerals) Freehand letter writing and sketches of various kind of objects in graph Sketch book/graph paper.
4 <sup>th</sup>	4 <sup>th</sup>	<p><b>Unit:- 2 Graphics using CAD</b>                      Meaning, requirement of computer graphics, CAD, screen structure and toolbars in AutoCAD, coordinate system, Drawing Limits, Units.                      Practice of LINE command, coordinates-Absolute, incremental, polar. POLYLINE, CIRCLE(3P,2P, TTR), ARC, ELLIPSE</p>
5 <sup>th</sup>	5 <sup>th</sup>	Using above geometrical commands for making figure e.g. triangle, rectangle, hexagon, pentagon, parabola. 2.4 Editing commands-Scale, erase, copy, stretch, lengthen and explode
6 <sup>th</sup>	6 <sup>th</sup>	Use of SNAP, GRID and ORTHO mode for selection of points quickly. Use of these modes while picking points in LINE, CIRCLE, PLINE, ARC, ELLIPSE etc commands.

7 <sup>th</sup>	7 <sup>th</sup>	<b>Unit:-3 Scales</b> 3.1 Scales-their needs and importance (theoretical instructions), types of scales, definition of Representative Fraction(R.F.) and length of scale.
8 <sup>th</sup>	8 <sup>th</sup>	3.2 Construction of Plain and diagonal scale.
9 <sup>th</sup>	9 <sup>th</sup>	<b>1<sup>st</sup> Internal Assessment Exam (Tentative)</b>
10 <sup>th</sup>	10 <sup>th</sup>	<b>Unit:-4 Orthographic Projection</b> Theory of orthographic projections (Elaborate theoretical instructions) Projections of points in different quadrants Projection of line (1st angle and 3rd angle) 4.3.1 Line parallel to both planes
11 <sup>th</sup>	11 <sup>th</sup>	4.3.2 Line perpendicular to any one of the principal plane 4.3.3 Line inclined to any one of the principal plane and parallel to other.
12 <sup>th</sup>	12 <sup>th</sup>	Projection of Solid-Cube, Cuboid, Cone, Prism, pyramid Three views of orthographic projections of different objects (At least one sheet in 3rd angle)
13 <sup>th</sup>	13 <sup>th</sup>	4.6 Making above sheets in AutoCAD of:- point line solids and two objects
14 <sup>th</sup>	14 <sup>th</sup>	<b>Unit:- 5 Sectioning and Identification of surfaces</b> 5. 1 Identifications of surfaces, Importance and salient features of sectioning of objects
15 <sup>th</sup>	15 <sup>th</sup>	5. 2 Description of full section, half section partial or broken out sections, Offset Sections, revolved sections and removed sections
16 <sup>th</sup>	16 <sup>th</sup>	<b>Unit:- 6 Isometric Views</b> 6.1 Fundamental of isometric projections and isometric scale
17 <sup>th</sup>	17 <sup>th</sup>	6.2 Isometric views of different objects
18 <sup>th</sup>	18 <sup>th</sup>	6.3 AutoCAD for the isometric views sheets. Making single computer sheet showing all the three views and an isometric (in single split screen view) of any object showing understanding of use of AutoCAD in making isometric views – at least 1 sheet
19 <sup>th</sup>	19 <sup>th</sup>	<b>Unit:- 7 Common Symbols and conventions used in Engineering</b> 7.1 Civil Engineering sanitary fitting symbols
20 <sup>th</sup>	20 <sup>th</sup>	<b>2<sup>nd</sup> Internal Assessment Exam (Tentative)</b>
<b>Winter Vacations 25.12.2018 to 08.01.2019</b>		
21 <sup>st</sup>	21 <sup>st</sup>	7.2 Electrical fitting symbols for domestic interior installations 7.3 Safety symbols used in engineering works
22 <sup>nd</sup>	22 <sup>nd</sup>	<b>Unit:-8 Development of surfaces (cylinder, cuboid, cone)</b> 8.1 Parallel line, radial line method
23 <sup>rd</sup>	23 <sup>rd</sup>	<b>Unit:-9 Detailed and assembly drawing</b> 9.1 Principle and utility of detailed and assembly drawings
24 <sup>th</sup>	24 <sup>th</sup>	9.2 Wooden joints i.e. corner mortise and tenon joint, Tee Halving joint, Mitre faced corner joint, Tee bridle joint , crossed wooden joint,

		cogged joint, dovetail joint, through Mortise and tenon joint, furniture drawing – freehand and with the help of drawing instruments
25 <sup>th</sup>	25 <sup>th</sup>	9.3 Making Wooden Joint sheets in AutoCAD, rendering & showing assembly animation at least 1 sheet
26 <sup>th</sup>	26 <sup>th</sup>	<b>Unit:- 10 Screw threads and threaded fastener</b> 10.1 Thread Terms and Nomenclature
27 <sup>th</sup>	27 <sup>th</sup>	10.1.1 Type of threads-external and internal threads, right and left hand threads (actual conventional representation), Single and multiple start thread.
28 <sup>th</sup>	28 <sup>th</sup>	10.1.2 Different forms of screw threads –V threads (B.S.W. threads, B.A thread, American National and Metric thread), Square threads (Square, Acme, buttress and Knuckle thread)
29 <sup>th</sup>	29 <sup>th</sup>	10.2. Nuts and Bolts 10.2.1 Different views of hexagonal and square nuts. Square and hexagonal headed bolt.
30 <sup>th</sup>	30 <sup>th</sup>	10. 2. 2 Assembly of Hexagonal ended bolt and Hexagonal nut with washer. 10. 2. 3 Assembly of square headed bolt with hexagonal and with washer.
31 <sup>st</sup>	31 <sup>st</sup>	10. 3. Locking Devices 10. 3. 1 Different types of locking devices-Lock nut, castle nut, split pin nut, locking plate, slotted nut and spring washer.
32 <sup>nd</sup>	32 <sup>nd</sup>	10. 3. 2 Foundations bolts-Rag bolt, Lewis bolt, Curved bolt and eye bolt. 10. 3. 3 Drawing of various types of studs
33 <sup>rd</sup>	33 <sup>rd</sup>	<b>Unit :- 11 Keys and Cotters</b> 11. 1 Various types of keys and cotters-weir practical application, drawings of various keys and cotters showing keys and cotters in position
34 <sup>th</sup>	34 <sup>th</sup>	11. 2 Various types of Joints -Spigot and Socket Joints -Gib and cotter joint -Knuckle joint
35 <sup>th</sup>	35 <sup>th</sup>	<b>Unit:- 12 Couplings</b> Introduction to coupling, their use and types Muff coupling
36 <sup>th</sup>	36 <sup>th</sup>	Flange coupling (protected) Flexible Coupling
37 <sup>th</sup>	37 <sup>th</sup>	<b>REVISION</b>



## Lesson Plan

Name of the faculty: Dharamvir Saini

Discipline: Civil Engg.

Year: Ist

Subject: Internet of Things and Artificial Intelligence

Lesson Plan Duration: 35 Weeks (From 30 July, 2018 to 30 April, 2019)

Workload (Practical) per week (In Hours) Practical-02

Week	Practical Day/Hours	Practical
1st	1st	Introduction to Internet of Things (IoT)
	2nd	Applications (IoT)
2nd	3rd	architecture
	4th	protocols
3rd	5th	Understand the concepts of Internet of Things
	6th	Build small IoT applications
4th	7th	Understand and analyzing sensor
	8th	generated data using analytic techniques in Excel
5th	9th	Wireless sensors and actuators
	10 <sup>th</sup>	Data aggregation systems and analog-to-digital data conversion
6th	11 <sup>th</sup>	data center or cloud
	12 <sup>th</sup>	Characteristics of IoT
7th	13 <sup>th</sup>	Physical Design of IOT
	14 <sup>th</sup>	Logical Design of IoT
8th	15 <sup>th</sup>	Functional blocks of IoT,
	16 <sup>th</sup>	Communication Models.
9th	17 <sup>th</sup>	Basics of C language
	18 <sup>th</sup>	using Arduino IDE
10 <sup>th</sup>	19 <sup>th</sup>	Understating basics of Arduino IDE
	20 <sup>th</sup>	Variables
11 <sup>th</sup>	21 <sup>st</sup>	data type
	22 <sup>th</sup>	loops,
12 <sup>th</sup>	23 <sup>rd</sup>	control statement
	24 <sup>th</sup>	function
13 <sup>th</sup>	25 <sup>th</sup>	Practical using Arduino-interfacing sensors
	26 <sup>th</sup>	Interfacing Light Emitting Diode(LED )
14 <sup>th</sup>	27 <sup>th</sup>	Blinking LED
	28 <sup>th</sup>	Interfacing Button and LED
15 <sup>th</sup>	29 <sup>th</sup>	LED blinking when button is pressed
	30 <sup>th</sup>	Interfacing Light Dependent Resistor (LDR)
16 <sup>th</sup>	31 <sup>st</sup>	LED, displaying automatic night lamp
	32 <sup>st</sup>	Interfacing Temperature Sensor(LM35
17 <sup>th</sup>	33 <sup>rd</sup>	Use of sensor
	34	Revise the previous practicals
18 <sup>th</sup>	35	Details of humidity sensor
	36	or humidity sensor (e.g. DHT11)

19 <sup>th</sup>	37	Interfacing Liquid Crystal Display(LCD)
	38	Revise the previous practicals
20 <sup>th</sup>	39	display data generated by sensor on LCD
	40	Interfacing Air Quality Sensor-pollution (e.g. MQ135)
21 <sup>st</sup>	41	display data on LCD ,
	42	Revise the previous practicals
22 <sup>st</sup>	43	switch on LED when data sensed is higher than specified value.
	44	Interfacing Bluetooth module (e.g. HC05
23 <sup>rd</sup>	45	Revise the practicals
	46	receiving data from mobile phone
24 <sup>th</sup>	47	on Arduino and display on LCD
	48	Revise the practicals
25 <sup>th</sup>	49	Interfacing Relay module to demonstrate Bluetooth
	50	based home automation application. (using Bluetooth and relay).
26 <sup>th</sup>	51	Revise the practicals
	52	Introduction to Artificial Intelligence (AI)
27 <sup>th</sup>	53	Machine Learning (ML),
	54	Deep Learning (DL).
28 <sup>th</sup>	55	Role of AI in IoT
	56	its applications
29 <sup>th</sup>	57	Managing
	58	Analyzing data generated by IoT devices
30 <sup>th</sup>	59	The Original Robotic Industry – Manufacturing
	60	Increased intelligence
31 <sup>st</sup>	61	Big Data
	62	Machine Learning Tasks
32 <sup>st</sup>	63	Machine Learning Applications
	64	History and relationship to other fields
33 <sup>st</sup>	65	e.g. classification
	66	Revision of the Practicals
34 <sup>th</sup>	67	linear regression, etc.
	68	Numerical based on above techniques
35 <sup>st</sup>	69	Revision of the practicals
	70	Understanding excel for analyzing data

**Name** : Charanjeet Singh  
**Discipline** : Civil Engg  
**Semester** : 1<sup>st</sup> Year  
**Subject** : Information Technology Lab  
**Lesson plan duration** : 30 Weeks(From July 18 to April 19)  
**Total Load** : 2 practical per Week

WEEK	PRACTICAL	
	PRACTICAL DAY	TOPIC
1 <sup>st</sup>	1	Given a PC, name its various components and peripherals. List their functions
2 <sup>nd</sup>	2	Given a PC, name its various components and peripherals. List their functions
3 <sup>rd</sup>	3	Installing various components of computer system and installing system software and application software
4 <sup>th</sup>	4	Installation of I/O devices, printers and installation of operating system viz. Windows/BOSS/LINUX
5 <sup>th</sup>	5	Installation of I/O devices, printers and installation of operating system viz. Windows/BOSS/LINUX
6 <sup>th</sup>	6	Features of Windows as an operating system Start <ul style="list-style-type: none"> <li>☒ Shut down and restore</li> <li>☒ Creating and operating on the icons</li> <li>☒ Opening, closing and sizing the windows and working with windows interfacing elements (option buttons, checkbox, scroll etc.)</li> <li>☒ Using elementary job commands like – creating, saving, modifying, renaming, finding and deleting a file and folders</li> <li>☒ Changing settings like, date, time, colour (back ground and fore ground etc.)</li> <li>☒ Using short cuts</li> <li>☒ Using on line help</li> </ul>

7 <sup>th</sup>	7	<p>Features of Windows as an operating system Start</p> <ul style="list-style-type: none"> <li>☑ Shut down and restore</li> <li>☑ Creating and operating on the icons</li> <li>☑ Opening, closing and sizing the windows and working with windows interfacing elements (option buttons, checkbox, scroll etc.)</li> <li>☑ Using elementary job commands like – creating, saving, modifying, renaming, finding and deleting a file and folders</li> <li>☑ Changing settings like, date, time, colour (back ground and fore ground etc.)</li> <li>☑ Using short cuts</li> <li>☑ Using on line help</li> </ul>
8 <sup>th</sup>	8	<p>Word Processing (MS Office/Open Office)</p> <p>a) File Management:</p> <ul style="list-style-type: none"> <li>☑ Opening, creating and saving a document, locating files, copying contents in some different file(s), protecting files, giving password protection for a file</li> </ul> <p>b) Page set up:</p> <ul style="list-style-type: none"> <li>☑ Setting margins, tab setting, ruler, indenting</li> </ul> <p>c) Editing a document:</p> <ul style="list-style-type: none"> <li>☑ Entering text, cut, copy, paste using tool- bars</li> </ul> <p>d) Formatting a document:</p> <ul style="list-style-type: none"> <li>☑ Using different fonts, changing font size and colour, changing the appearance through bold/italic/underlined, highlighting a text, changing case, using subscript and superscript, using different underline methods</li> <li>☑ Aligning of text in a document, justification of document, inserting bullets and numbering</li> <li>☑ Formatting paragraph, inserting page breaks and column breaks, line spacing</li> <li>☑ Use of headers, footers: Inserting footnote, end note, use of comments, autotext</li> <li>☑ Inserting date, time, special symbols, importing graphic images, drawing tools</li> </ul>
9 <sup>th</sup>	9	<p>Word Processing (MS Office/Open Office)</p> <p>a) File Management:</p> <ul style="list-style-type: none"> <li>☑ Opening, creating and saving a document, locating files, copying contents in some different file(s), protecting files, giving password protection for a file</li> </ul> <p>b) Page set up:</p> <ul style="list-style-type: none"> <li>☑ Setting margins, tab setting, ruler, indenting</li> </ul> <p>c) Editing a document:</p> <ul style="list-style-type: none"> <li>☑ Entering text, cut, copy, paste using tool- bars</li> </ul> <p>d) Formatting a document:</p> <ul style="list-style-type: none"> <li>☑ Using different fonts, changing font size and colour, changing the appearance through bold/italic/underlined, highlighting a text, changing case, using subscript and superscript, using different underline methods</li> </ul>

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10 <sup>th</sup>	10	<p>Tables and Borders:</p> <ul style="list-style-type: none"> <li>☑ Creating a table, formatting cells, use of different border styles, shading in tables, merging of cells, partition of cells, inserting and deleting a row in a table</li> <li>☑ Print preview, zoom, page set up, printing options</li> <li>☑ Using find, replace options</li> </ul> <p>f) Using Tools like:</p> <ul style="list-style-type: none"> <li>☑ Spell checker, help, use of macros, mail merge, thesaurus word content and statistics, printing envelopes and labels</li> <li>☑ Using shapes and drawing toolbar,</li> <li>☑ Working with more than one window</li> </ul>
11 <sup>th</sup>	11	<p>Tables and Borders:</p> <ul style="list-style-type: none"> <li>☑ Creating a table, formatting cells, use of different border styles, shading in tables, merging of cells, partition of cells, inserting and deleting a row in a table</li> <li>☑ Print preview, zoom, page set up, printing options</li> <li>☑ Using find, replace options</li> </ul> <p>f) Using Tools like:</p> <ul style="list-style-type: none"> <li>☑ Spell checker, help, use of macros, mail merge, thesaurus word content and statistics, printing envelopes and labels</li> <li>☑ Using shapes and drawing toolbar,</li> <li>☑ Working with more than one window</li> </ul>
12 <sup>th</sup>	12	<p>Spread Sheet Processing (MS Office/Open Office)</p> <p>a) Starting excel, open worksheet, enter, edit, data, formulae to calculate values, format data, save worksheet, switching between different spread sheets</p> <p>b) Menu commands: Create, format charts, organise, manage data, solving problem by analyzing data. Programming with Excel Work Sheet, getting information while working</p> <p>c) Work books: Managing workbooks (create, open, close, save), working in work books, selecting the cells, choosing commands, data entry techniques, formula creation and links, controlling calculations</p> <p>Editing a worksheet, copying, moving cells, pasting, inserting, deletion cells, rows, columns, find and replace text, numbers of cells, formatting worksheet,</p>

		conditional formatting
13 <sup>th</sup>	13	<p>a) Starting excel, open worksheet, enter, edit, data, formulae to calculate values, format data, save worksheet, switching between different spread sheets</p> <p>b) Menu commands: Create, format charts, organise, manage data, solving problem by analyzing data. Programming with Excel Work Sheet, getting information while working</p> <p>c) Work books: Managing workbooks (create, open, close, save), working in work books, selecting the cells, choosing commands, data entry techniques, formula creation and links, controlling calculations Editing a worksheet, copying, moving cells, pasting, inserting, deletion cells, rows, columns, find and replace text, numbers of cells, formatting worksheet, conditional formatting</p>
14 <sup>th</sup>	14	<p>Creating a chart: Working with chart types, changing data in chart, formatting a chart, use chart to analyze data Using a list to organize data, sorting and filtering data in list</p> <p>e) Retrieve data with query: Create a pivot table, customizing a pivot table. Statistical analysis of data</p> <p>f) Exchange data with other application: Embedding objects, linking to other applications, import, export document.</p>
15 <sup>th</sup>	15	<p>Creating a chart: Working with chart types, changing data in chart, formatting a chart, use chart to analyze data Using a list to organize data, sorting and filtering data in list</p> <p>e) Retrieve data with query: Create a pivot table, customizing a pivot table. Statistical analysis of data</p> <p>f) Exchange data with other application: Embedding objects, linking to other applications, import, export document.</p>
16 <sup>th</sup>	16	<p>Creating a chart: Working with chart types, changing data in chart, formatting a chart, use chart to analyze data Using a list to organize data, sorting and filtering data in list</p> <p>e) Retrieve data with query: Create a pivot table, customizing a pivot table. Statistical analysis of data</p> <p>f) Exchange data with other application: Embedding objects, linking to other applications, import, export</p>

		document.
17th	17	<p>PowerPoint Presentation (MS Office/Open Office)</p> <p>a) Introduction to PowerPoint</p> <ul style="list-style-type: none"> <li>- How to start PowerPoint</li> <li>- Working environment: concept of toolbars, slide layout &amp; templates.</li> <li>- Opening a new/existing presentation</li> <li>- Different views for viewing slides in a presentation: normal, slide sorter.</li> </ul> <p>b) Addition, deletion and saving of slides</p> <p>c) Insertion of multimedia elements</p> <ul style="list-style-type: none"> <li>- Adding text boxes</li> <li>- Adding/importing pictures</li> <li>- Adding movies and sound</li> <li>- Adding tables and charts etc.</li> <li>- Adding organizational chart</li> <li>- Editing objects</li> <li>- Working with Clip Art</li> </ul>
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19th	19	<p>d) Formatting slides</p> <ul style="list-style-type: none"> <li>- Using slide master</li> <li>- Text formatting</li> <li>- Changing slide layout</li> <li>- Changing slide colour scheme</li> <li>- Changing background</li> <li>- Applying design template</li> </ul>
20th	20	<p>d) Formatting slides</p> <ul style="list-style-type: none"> <li>- Using slide master</li> <li>- Text formatting</li> <li>- Changing slide layout</li> <li>- Changing slide colour scheme</li> <li>- Changing background</li> <li>- Applying design template</li> </ul>
21st	21	<p>How to view the slide show?</p> <ul style="list-style-type: none"> <li>- Viewing the presentation using slide navigator</li> <li>- Slide transition</li> <li>- Animation effects, timing, order etc.</li> </ul> <p>Use of Pack and Go Options.</p>

22nd	22	How to view the slide show? - Viewing the presentation using slide navigator - Slide transition - Animation effects, timing, order etc. Use of Pack and Go Options.
23rd	23	Internet and its Applications
24th	24	Establishing an internet connection. Browsing and down loading of information from internet.
25th	25	Establishing an internet connection. Browsing and down loading of information from internet.
26th	26	Sending and receiving e-mail - Creating a message - Creating an address book - Attaching a file with e-mail message - Receiving a message - Deleting a message
27th	27	Sending and receiving e-mail - Creating a message - Creating an address book - Attaching a file with e-mail message - Receiving a message - Deleting a message
28th	28	Assigning IP Addresses to computers and use of domain names.
29th	29	Functioning of Antivirus a) Installation and updation of an antivirus. b) How to scan and remove the virus.
30th	30	Functioning of Antivirus a) Installation and updation of an antivirus. b) How to scan and remove the virus.