

Basic Computer Science

Objectives:

At the end of the course, the students will be able to

- show comprehensive knowledge about computer with its organization & functions
- start/Shutdown and restore.
- do opening, closing and sizing the windows.
- show skills in ms word, ms-excel, etc.
- create chart , graph, table etc.
- prepare reports of various investigations
- create & project PowerPoint slide
- install different software & programs
- do internet browsing & other applications of internet
- use different tools, shapes and drawing toolbar
- show competence in DHIS (District Health Information System)

List of Competencies:

Ability to -

1. show comprehensive knowledge about computer with its organization & functions
2. show skills in ms word, ms-excel, etc.
3. create chart , graph, table etc.
4. create & project PowerPoint slide
5. install different software & programs
6. do internet browsing & other applications of internet
7. use different tools, shapes and drawing toolbar
8. show competence in DHIS (District Health Information System)

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Contents	Learning Objectives	Training /Learning experiences		Expected hours	Assessment
		Teaching Method	Aids		
<p>Detailed Contents :</p> <ul style="list-style-type: none"> ▪ Information Technology - its concept and scope ▪ Computers for information storage, information seeking, information processing and information transmission ▪ Elements of computer system - computer hardware and software: data - numeric data, alpha numeric data; contents of program, processing. ▪ Computer organization, block diagram of a computer, CPU, memory. ▪ Input devices; keyboard, mouse etc; output devices; VDU and printer, scanner, plotter. ▪ Electrical requirements, inter-connections between units, connectors and cables. ▪ Secondary storage; magnetic disks-tracks and sectors, optical disk (CD and DVD Memory), primary and secondary memory: RAM, ROM, PROM etc. ▪ Capacity; device controllers, serial port ▪ Exercises on file opening and closing; memory management; device management and input-output (I/O) management with respect of windows. ▪ Installation concept and precautions to be observed while installing the system and software. ▪ Introduction about operating systems such as MS-DOS and Windows. ▪ Special features, various commands of MS word and MS- Excel, PowerPoint. ▪ About the internet-server types, connectivity (TCOP/IP, shell); applications of internet like: e-mail and browsing. ▪ Various Browsers like WWW (World Wide Web); hyperlinks; HTTP (Hyper Text Transfer Protocol); FTP (File Transfer Protocol). ▪ Basic of Networking -LAN, WAN, Topologies. 	<p>On completion of the course the students will be able to–</p> <ul style="list-style-type: none"> ▪ acquaint with the modern computer technology. ▪ develop skills in ms word, ms-excel, power point, internet. ▪ prepare reports of various investigations ▪ collect latest information through internet. 	Lectures	Computer, Multi media, Computer lab. Internet, White-Board Marker.	Total L-30 hrs.	Written Viva Practical

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Contents	Learning Objectives	Training /Learning experiences		Expected hours /days	Assessment
		Teaching Methods	Aids		
<p>Detailed Contents :</p> <ul style="list-style-type: none"> ▪ Identify various components of a computer and list their functions. ▪ Identification of various parts of a computer and peripherals. ▪ Practice installing a computer system by giving connection and loading the system software and application software. ▪ Installation of DOS and simple exercises on TYPE, REN, DEL, CD, MD, COPY, TREE, BACKUP commands. ▪ Exercises on entering text and data (Typing Practice). ▪ Installation of Windows 98 or 2000 etc. ▪ Features of windows as an operating system. ▪ Start, Shutdown and restore. ▪ Creating and operating on the icons. ▪ Opening, closing and sizing the windows. ▪ Using elementary job commands like - creating, saving, modifying, finding and deleting a file. ▪ Creating and operating on a folder. ▪ Changing setting like, date, time color (back ground and foreground) ▪ Using short cuts, using on-line help. <p>MS-WORD</p> <ul style="list-style-type: none"> ▪ File Management ▪ Opening, creating and saving a document, locating files, copying contents in some different file (s), protecting files, giving password protection for a file. ▪ Page set up : Setting margins, tab setting, ruler, indenting ▪ Editing a document : Entering text, cut, copy, paste using tool-bars ▪ Formatting a document: Using different fonts, changing font size and colour, changing the appearance through bold/italic/underlines, highlighting a text, changing case, using subscript and superscript using different underline methods, aligning of text in document, inserting bullets and numbering. 	<p>On completion of the course the students will be able to–</p> <p>Identify various parts and components of a computer and peripherals & list their functions.</p> <p>Install Windows, DOS and exercise on simple exercises on TYPE, REN, DEL, CD, MD, COPY, TREE, BACKUP commands</p> <p>Start/Shutdown and restore.</p> <p>Do opening, closing and sizing the windows. do elementary job commands like - creating, saving, modifying, finding and deleting a file. Creating and operating on a folder etc</p>	<p>Practical demonstrations</p>	<p>Computer, Multi media, Computer lab. Internet, White Board Marker.</p>	<p>P-20 hrs</p>	<p>Written- 50 Practical- 50</p>

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Contents	Learning Objectives	Training /Learning experiences		Expected hours	Assessment
		Teaching Methods	Aids		
<p>Detailed Contents :</p> <ul style="list-style-type: none"> ▪ Formatting paragraph, inserting page breaks and column breaks. ▪ Use of headers footers: Inserting footnote, end note, use of comments. ▪ Inserting date, time, special symbols, importing graphic images, drawing tools. ▪ Tables and Borders : Creating a table, formatting cells, use of different border styles, shading in tables, merging of cells, partition of cells, inserting and deleting row in a table. ▪ Print preview, zoom, page set-up, printing options. ▪ Using Find, Replace options. ▪ Using Tools like: Spell checker, help, use of macros, mail merge, thesaurus word content and statistics, printing envelops and labels. ▪ Using shapes and drawing toolbar. ▪ Working with more than one window in MS Word. ▪ How to change the version of the document from one windows to another. ▪ Conversion between different text editors, software and MS word. ▪ MS -Excel : Starting excel, open worksheet, enter, edit, data, formulas to calculate values, format data, create chart, printing chart, save worksheet, switching from another spread sheet ▪ Menu Commands : Create, format charts, organise, manage data, solving problem by analyzing data, exchange with other applications. Programming with MS Excel, getting information while working. ▪ 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, working with arrays. ▪ Editing a worksheet, copying, moving cells, pasting, inserting, deletion cells, rows, columns, find and replace text, numbers of cells, formatting worksheet. 	<p>On completion of the course the students will be able to–</p> <p>Format paragraph, including use of headers footers, footnote, end note, use of comments etc.</p> <p>create tables & its details</p> <p>Use tools like: Spell checker, help, use of macros, mail merge, thesaurus word content and statistics, printing envelops and labels.</p> <p>Use shapes and drawing toolbar.</p> <p>Work with more than one window in MS Word.</p> <p>Expertise on MS – Excel, Menu Commands & Work Books</p>	<p>Practical demonstrations</p>	<p>Computer, Multi media, Computer lab. Internet, White Board Marker.</p>	<p>P-20 hrs.</p>	<p>Written</p> <p>Practical</p>

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<p>Detailed Contents :</p> <ul style="list-style-type: none"> ▪ 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 ▪ Retrieve data with MS-Query: Create a pivot table, customising a pivot table. Statistical analysis of data. ▪ Customise MS-Excel : How to change view of worksheet, outlining a worksheet, customise workspace, using templates to create default workbooks, protecting work ▪ Exchange data with other application: linking and embedding, embedding objects, linking to other applications, import, export document <p>PowerPoint :</p> <ul style="list-style-type: none"> ▪ Making Slide ▪ Slide Projection <p>Internet and its applications :</p> <ul style="list-style-type: none"> ▪ Log-in to internet ▪ Navigation for information seeking on internet ▪ Browsing and down loading of information from internet ▪ Sending and receiving e-mail ▪ Creating a message ▪ Creating and address book ▪ Attaching a file with e-mail message ▪ Receiving a message ▪ Deleting message 	<p>On completion of the course the students will be able to– Create chart / graph</p> <p>Customise MS-Excel :</p> <p>Create PowerPoint : Slide following the principles of slide preparation & Slide Projection</p> <p>Expertise on Internet and its applications : Log-in to internet , Navigation for information seeking, Browsing and down loading of information, Sending and receiving e-mail, Creating a message Attaching a file with e-mail message, Receiving a message , Deleting message.</p>	<p>Practical demonstrations</p>	<p>Computer, Multi media, Computer lab. Internet, White Board Marker.</p>	<p>P-18 hrs</p> <p>P-12 hrs</p>	<p>Written Practical</p>