MAX INSTITUTE OF TEACHER'S TRAINING COLLEGE RAMGARH CANTT, JHARKHAND



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B.Ed - Bachelor of Education

Subject:- EPC 3

Assignment on ICT

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S. No.	Topic	Submission Date	Page No.	Remark
Q 1.	What do you mean by role of information technologies in teaching learning process?		01-05	
Q 2.	What is Microsoft office excel, Describe it's Function and usage.		5-11	
Q 3.	How you print with page settings in excel? Give example.		11-13	
Q 4.	Write a short note about spreadsheet with Example?		13-15	
Q 5.	Explain Some major educational radio projects in India?		15-21	
Q 6.	What do you mean by Audio visual (AV) Technology in education?		21-23	
Q 7.	What are the Uses of Radio and Audio Medias?	,	24-28	110/19



S. No.	Topic	Submission Date	Page No.	Remark
Q 8.	What is ICT?		28 - 29	
Q 9.	What is the use of computer in education explain with Example.		29-31	
Q 10.	What is the difference between MS-word, Ms-Excel and Ms Power Point? Explain with suitable Example.		33-438	
Q 11.	What is the Importance of News paper in education?		39-41	
Q 12.	What are the Use/Benefits of Television and Video in Education?		42-49	

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Q 1) What do you mean by role of information technology teaching learning process?

Ans:- Information technology can be used to promote the opportunities of knowledge dissemination. It can help the teachers and students having up-to-date information and knowledge. Accurate and right information is necessary for effective teaching and learning; and information technology.



 Why Information Technology is important in education:-

Making life easier for one and all:-

The main benefit of Information Technology in Education as it can make life a lot easier for one and all concerned. As a school, you should be able to manage all your administrative

activities and academic functions without any problems whatsoever. The biggest benefit is that it is capable of automating all the processes in a school thus saving a lot of time and effort that the administration and other stakeholders can devote to more fruitful endeavors.

2. Helping with the reports:-

To analyze the growth and productivity of the campus, an institution needs to manage the monthly reports. So that evaluating it they can make the best decision for all the stakeholders. Reports are an integral part of schools but generating it manually in the shorter span of time is very hectic and some prone to a calculation error. But using Information Technology school staff can easily manage such laborious work in few hours and provide a deeper insight into each operation so that school can take instant action.

3. Making better decisions:-

Taking the right decision at right time is the vital part of every institution.

But sometimes due to lack of technology, it becomes harder for institutes to find out that which decision will impact their institute, and which will not.

When the school has a comprehensive information in their kitty then it became easy for them to take faster and better decisions which benefit all the stakeholders of the institution.

All these things can be achieved by implementing right Information Technology in institution. It helps a school maintain the reports, and eventually, institute decision makes can make better decisions and that too within a shorter span of time.

4. Features for All:-

Each school functionality is varying not every institute is similar. They always different from each other in some little way or the other. This also means that the same technology is not always going to work for them. They may not need all that organization has to offer or they may need more.

It all depends on the scale at which they are working.

It comes loaded with features; it probably has all the features that you may need to simplify your institute operation. For example, this system makes it easier for parents and teachers to collaborate and communicate with each other via SMS, email, instant notification. It is also easy to perform tasks such as online payment, assignment submission, a progress report of the student, fee management and many more.

At the same time, it also enables the teachers to maintain the attendance sheet, grade book, and timetable in a short span of time.

5. Helping Authorities:-

Normally, the most thankless job in a school is that of management. Nobody thanks you for a job well done but whenever things go awry you are the first to be crucified or hung out to dry.

This is why the need of the hour is to find a system that works well for the management and helps it perform its various tasks and responsibilities smoothly enough. The advantage of Information Technology is that it is beneficial for the school and college authorities in the sense that they can keep a tab on things such as timetable, scheduling, and attendance with it. Things such as online assignments and examinations can be conducted with a greater degree of smoothness and efficiency.

6. Communication-related assistance:-

One of the basic functions being played by technology in today's world is that it has made communication a lot easier than what it used to be earlier. Communication is an important part of school as well and in this day and age, it has become easier for people in a school to get in touch with each other as and when it may be needed.

Information Technology can help significantly as well as it comes with an internal messaging system that can be integrated with texting, e-mail, and such other external tools of communication. This means that students can get in touch with teachers in case they needed to get clarity for some areas where they had doubts and teachers can also contact students if the need so arose. Similar contacts can also be

established between parents and teachers and vice versa, and parents and management and vice versa.

The best part of all this is that these are just a few angles of communication that we are talking about over here. The applications are limitless.

7. Value for money:-

The biggest boon of the introduction of Information Technology in education has been in the way it has created products such as Federa that can provide value for money.

The quality of this educational software tool can be judged by the fact that it is used by more than 40,000 schools and colleges in at least 200 countries of the world. It is available in 20 languages including some very prominent ones such as Spanish, French, English, Dutch, German, Portuguese, Russian, Italian, and Turk to name a few.

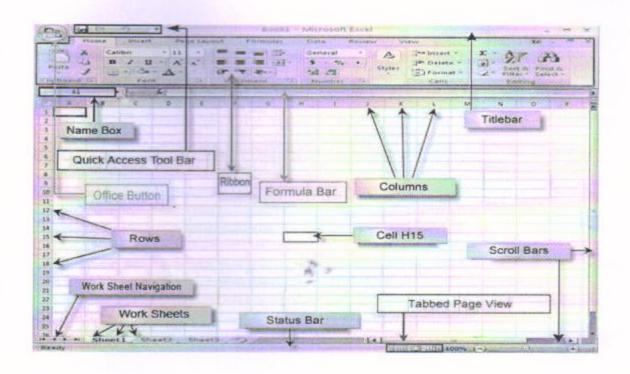
It comes with a wide range of modules that are available on the basis of the plan that you are buying.

Q2) What is Microsoft Office Excel ? Describe it's functions and usage.

Ans:- Microsoft Excel enables users to format, organize and calculate data in a spreadsheet. By organizing data using software like Excel, data analysts and other users can make information easier to view as data is added or changed.

Excel contains a large number of boxes called cells that are ordered in rows and columns.

Excel has its own terminology for its components, which new users may not immediately find understandable. Some of these terms and components include the following:-



- <u>Cell.</u> A user enters data into a cell, which is the intersection of a column and row.
- <u>Cell reference</u>. This is the set of coordinates where a cell is located. Rows are horizontal and numbered whereas columns are vertical and assigned a letter.
- Active cell. This is the currently selected cell, outlined by a green box.
- Workbook. This is an Excel file that contains one or more worksheets.

- Worksheet. These are the different documents nested within a Workbook.
- Worksheet tab. These are the tabs at the bottom left of the spreadsheet.
- Column and row headings. These are the numbered and lettered cells located just outside of the columns and rows. Selecting a header highlights the entire row or column.
- Formula. Formulas are mathematical equations, cell references or functions that can be placed inside a cell to produce a value. Formulas must start with an equal "=" sign.
- Formula bar. This is the long input bar that is used to enter values or formulas in cells. It is located at the top of the worksheet, next to the "fx" label.
- Address bar. This bar located to the left of the formula bar shows the number and letter coordinates of an active cell.
- <u>Filter</u>. These are rules a user can employ to select what rows in a worksheet to display. This option is located on the top right of the home bar under "Sort & Filter." An auto filter option can be selected to show rows that match specific values.
- AutoFill. This feature enables users to copy data to more than one cell automatically. With two or more cells

in a series, a user can select both cells and drag the bottom right corner down to autofill the rest of the cells.

- AutoSum. This feature enables users to add multiple values. Users can select the cells they want to add and press the Alt and Equal keys. There is also a button to enable this feature on the top right of the home page, above "Fill" and to the left of "Sort & Filter."
- <u>PivotTable.</u> This data summarization tool sorts and calculates data automatically. This is located under the insert tab on the far left.
- <u>PivotChart.</u> This chart acts as a visual aid to the PivotTable, providing graph representations of the data. It is located under the middle of the insert page, next to maps.
- Source data. This is the information that is used to create a PivotTable.

❖ Uses of MS Excel

MS Excel or Microsoft Excel is an essential software program of Microsoft Office Suite developed by Microsoft. It is one of the most powerful spreadsheet software that uses rows and columns to organize the data.

Excel seems like an essential number-crunching software primarily used for managing household expenses or generating some basic reports. However, excel is more than just a simple reporting program. Excel is powerful software

and can help perform a wide range of jobs for personal or business purposes. Therefore, there are plenty of uses of MS excel, and the list goes on.

In this article, we are discussing some of the major uses of Microsoft Excel that will help us understand the potential of this powerful software and how different people or organizations are using it for their needs. They are as follows:-

- 1. Data Entry and Storage
- 2. Performing Calculations
- 3. Data Analysis and Interpretation
- 4. Reporting and Visualizations
- Accounting and Budgeting

1. Data Entry and Storage:-

When there is a need for data entry and data storage, excel is an excellent software for basic needs. Excel is a great option to store lots of data. However, the size of the excel file is limited based on the device's computing capacity and memory availability. Generally, excel worksheets can have 1,048,576 rows and 16,384 columns in a table form. Once the data is organized in an excel file, we can use it for various purposes. Using multiple tools and formulae, we can implement numerous operations on the data.

2. Performing Calculations-

MS Excel has plenty of in-built functions or formulae that can be used to work with the data. There are more than 450 functions in excel that are categorized accordingly. Some most common functions in an excel function library include financial, logical, text, date & time, math, and trigonometry. We can use the necessary functions or formulae on any row, column, and cell within the spreadsheet.

3. Data Analysis and Interpretation:-

Data analysis is an essential part of MS excel. Analyzing the data helps in making decisions for improvements. When the data has been updated in spreadsheets, we can use formulae and pivot tables to effectively analyze the data and interpret the numbers. Using these features, we can consolidate the data and easily focus on essential segments from large data sets.

4. Reporting and Visualizations:-

Charts, graphs, or other visualizations can make any simple report more attractive and meaningful. It is always a better way to use different charts to display the results in a summarized form, and that too with more attraction. A simple chart can sometimes cover and express the desired results than the massive table with relatively long data ranges.

5. Accounting and Budgeting:-

Account and budget managers most often use MS excel to maintain customer records. It is an easy way to organize the data and keep the data up to date with simple editing tools of excel software. It is one of the main tasks of account managers to keep records because it helps them create a

strong relationship with their clients. This eventually enables accounting or budgeting managers to earn customers' loyalty, which further generates repeat sales. Furthermore, they can easily find the details from excel and also share with others easily when necessary.

Q3. How you print with page settings in excel? Give example.

Ans:- Introduction to Print in Excel:-

Print in Excel is used to print out the data therein spreadsheet but to the width that is allowed for selected and available pages in printer setting. We can print the current sheet, active sheet, entire workbook, any selected table, or any customized range of worksheets. When we are about to print, we should have all the necessary columns under the print preview section. We can even give the border using print gridlines without actually bordering the data in the worksheet.

How to Set Printing Properties in Excel?

To set printing properties in excel is very easy. Let us understand this by looking at the following examples.

Step 1: Go to Excel Sheet, which a user wants to print. Open the File menu bar and click on print.

Step 2: Now Print setting will open, then under the Setting section, select 'Print Entire workbook'.

Step 3: Now click on the number of copies needed by the user.

Step 4: To print the workbook, click on the print button.

Summary: As the user has given instruction in print command, it will print that no of pages with an entire workbook.

Print Settings:-

 Multiple Copies: If a user wants to print more than one copy, he just needs to count how many copies he wants to print in the Copies section.

Select Printer: There are multiple options to save the workbook; as per the users need; he can select options in the added printer, save as PDF, OneNote, XPS document writer, send FAX or add any new printer.

- Print selection: This option will print only the current selection in the print command.
- Print Active sheets: This option will print only the active sheet in the workbook.
- Print Entire Workbook: This option will print all the workbook pages.
- <u>Collated</u>: If a user's workbook contains multiple pages, then there is an option to switch between Collated and Uncollated for a print command.

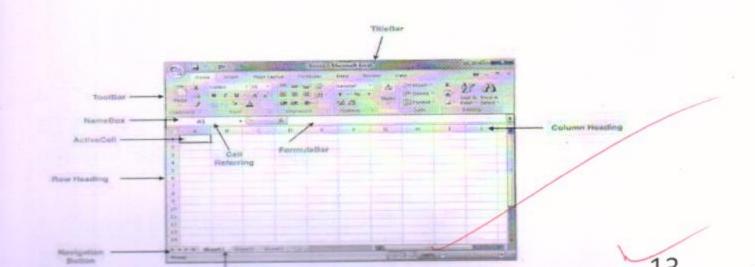
For example, if the user wants to print 10 copies from a workbook, Collated prints the entire first copy and then the entire second copy.

Or if the user is selecting Uncollated prints 10 copies of page 1, 10 copies of page 2, etc.

Orientation: A user can switch between Portrait
 Orientation (best when more rows but fewer columns on
 a page) and Landscape Orientation (best when more
 columns but fewer rows on a page).

Q4. Write a short note about spreadsheet with Example?

Ans:- A spreadsheet or worksheet is a file made of rows and columns that help sort, organize, and arrange data efficiently, and calculate numerical data. What makes a spreadsheet software program unique is its ability to calculate values using mathematical formulas and the data in cells. An example of how a spreadsheet may be utilized is creating an overview of your bank's balance.



Examples and uses of a spreadsheet:-

Although spreadsheets are often used with anything containing numbers, the uses of a spreadsheet are almost Below are some other popular endless. spreadsheets.

Finance:-

Spreadsheets are ideal for financial data, such as your checking account information, budgets, taxes, transactions, billing, invoices, receipts, forecasts, and any payment system.

· Forms:-

Form templates can be created to handle inventory, evaluations, performance reviews, quizzes, time sheets, patient information, and surveys.

School and grades:-

Teachers can use spreadsheets to track students, calculate grades, and identify relevant data, such as high and low scores, missing tests, and students who are struggling.

Lists:-

Managing a list in a spreadsheet is a great example of data that does not contain numbers, but still can be used in a spreadsheet. Great examples of spreadsheet lists include telephone, to-do, and grocery lists.

Sports:-

Spreadsheets can keep track of your favorite player stats or stats on the whole team. With the collected data, you can also find averages, high scores, and statistical data. Spreadsheets can even be used to create tournament brackets.

Q 5 Explain Some major educational radio projects in India?

Ans: Major Educational Radio Projects in India:-

The main projects that describe the growth of educational radio are:



1. School Broadcast Project:-

access. It serves as ideal medium addressing the local educational developmental and socio cultural needs.

9. Radio-Vision (Multimedia through Digital Radio):-

Pioneered by the BBC, the technique of radio-vision allows the subject matter to be presented through two channels, the audio and the visual. The visuals are presented in the form of still filmstrips, charts, slides, models, etc, while the explanation is given through recorded narration. Educational institutions use this as a substitute for educational television. Radio-vision has its own advantages: It is economical It can cater to different categories of learners It is easy to produce such programmes at the institutional level or at the learning centers It provides visual support to the concept that is taught.

10. Radio-text:-

Radio has been used along with textual data transfer via computer networks simultaneously to create a 'radio-text' environment. The teaching end is normally a FM radio station having data broadcast facility through a computer network. The main points of the radio broadcast are sent through textual mode to the receiving end via a computer network. The learning end has radio listening facility as well as a computer screen to receive the textual data. Since both audio and text are broadcast simultaneously, the learner at the receiving end gets high quality and low cost teaching. An experiment on the use of radio-text at Yashwant Rao Chavan Maharashtra Open University, Nasik, India resulted in the

satisfaction of more than 80 percent the learners. It also used for peer group discussion at the receiving end after the broadcast, which indicates radio-text could be used for varieties of objectives (Chaudhary, 1996).

Q 6. What do you mean by Audio visual (AV) Technology in education?

Ans:- According to the Webster dictionary, audio-visual aids is defined as "training or educational materials directed at both the senses of hearing and the sense of sight, films, recordings, photographs, etc. used in classroom instructions, library collections or the likes".



Q 7. What are the Uses of Radio and Audio Medias?

Ans:- Uses of Radio:-

In radio communication, used in radio and television broadcasting, cell phones, two-way radios, wireless networking, and satellite communication, among numerous other uses, radio waves are used to carry information across space from a transmitter to a receiver, by modulating the radio signal in the transmitter.



1. One Way to Use Radio Technology:

Like we stated earlier, podcasting is one of the most popular ways that people are choosing to use radio technology

today. Anyone can learn how to use radio technology for podcasting.

Podcasting utilizes digital audio technology. To listen to podcasts you just have to download the podcast on-demand or subscribe via a Really Simple Syndication (RSS) feed. When subscribing to a podcast via an RSS feed, it will automatically download the podcast to your computer.

2. Internet Radio

While podcasting is all the rage right now, people can still use radio technology to listen to internet radio. Internet radio came about in the 1990s. Internet radio differs from podcasting in that listeners of internet radio still have to tune into a specific broadcast to hear the programming, while podcasting allows you to listen to different radio programs at your leisure.

Internet radio differs from traditional radio broadcasting in that it has no geographical limits. This is because you can access internet radio through any device that can access the internet. Traditional radio broadcasting, on the other hand, only allows you to listen to its programs through traditional radio.

3. Traditional Radio

Traditional radio transmits music and conversation through radio waves in the air. As long as you have a 9-volt battery, coin, and an antenna, you can technically create traditional radio.

4. Walkie Talkies

A walkie talkie is the best long range two way radio. This is because walkie talkies are two devices that utilize radio waves to talk to one another from far distances. Two walkie talkies are able to communicate with one another by communicating wirelessly through the same frequency band.

Every walkie talkie is battery powered and contains a transmitter/receiver, an antenna that sends and receives radio waves, a loudspeaker/microphone, and a button that you push when you want to talk into the walkie talkie and be heard. The loudspeaker/microphone within every walkie talkie essentially works as an intercom system. As someone speaks into a walkie talkie, that person's words are converted into radio waves that are broadcast on a pre-arranged channel.

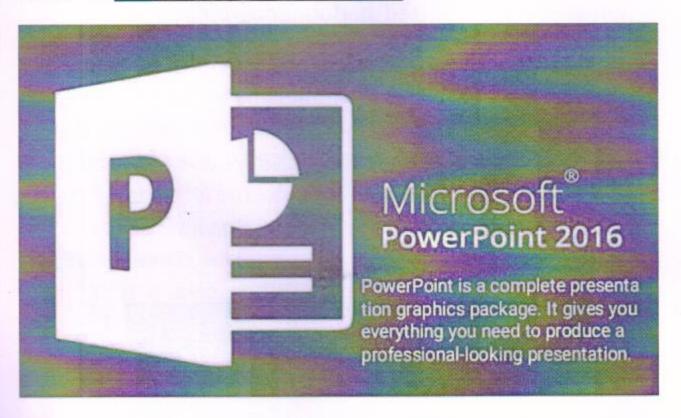
5. Cell Phones

The radio system within cell phones works by having a radio link within themselves that connects to the nearest signal from the base station antenna of its operator.

The base station antenna of the operator of a cell phone needs to establish a connection between two cell phone signals to receive a call. To route a call, the operator at the base station with the antenna that connects your cell phone signal needs to know the network of the cell phone that is receiving the call.

Q10. What is the difference between MS-word, Ms-Excel and Ms Power Point? Explain with suitable Example.

Ans:- 1. Microsoft PowerPoint:-

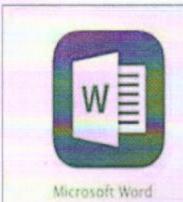


Microsoft PowerPoint is one of the most powerful tools that any company can use when it comes to meetings and presentations. PowerPoint uses a slide show method of giving presentations.

PowerPoint has a wealth of features that help professionals get their messages across to their colleagues or clients. We have a large library of articles that cover everything that you need to know about PowerPoint. So, after reading this article, why not go check some of them out.

Used Of Power Point:-

Different between MS-Word, MS-Excel and MS-Power Point :-



- · Professional documents
- MS word business proposal
- MS word articles & newsletters
- Hyperlinking
- Bills, cash memo, joining letter, receipts, letterhead
- · Mail merge email sending
- Lecture scripts
- · Document formatting
- Word-to-PDF conversion
- . E-book creation and editing
- · MS Word Charts & Graphs



Microsoft Excel

- · Spreadsheet automation
- . Data storage and formating
- Mathematical functions and formulas
- · Data cleaning & comparison
- Professional graphs and charts
- · Data modeling and analysis
- · Pivot table
- · Conditional formatting
- · MS Excel to PDF conversion
- · Data concatenation
- · Vlookup and Hlookup



Microsoft PowerPoint

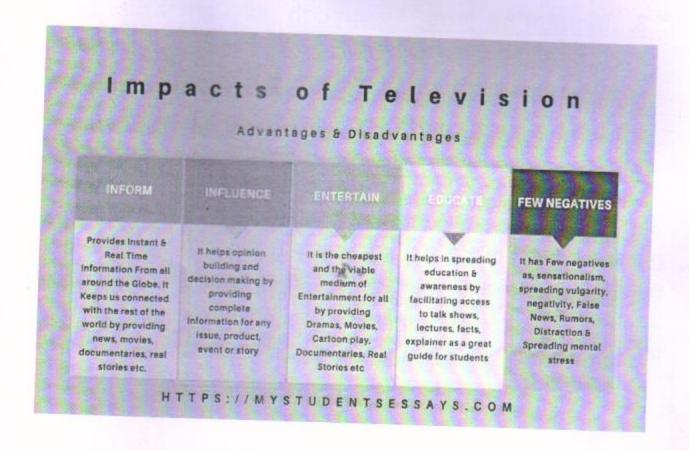
- Customized layout designs
- · Files/images import/export
- Business Proposals using PP
- · Photo album & smart arts
- · PowerPoint storyboarding
- · Investors' pitch
- · PowerPoint Master slides
- Training slides
- PowerPoint-to-PDF
 conversion
- · PowerPoint animations
- · PowerPoint Charts & Graphs
- · And many more.

Microsoft PowerPoint, Word, and Excel make it possible to do so much with regards to our jobs. The trio has something to offer for almost everyone. But, what exactly is the difference between PowerPoint, Word, and Excel, and what does each piece of software do? Let's find out!

The main difference between PowerPoint, Word, and Excel is the purpose of each software. PowerPoint is used for making presentations. Excel is the most helpful for capturing,

Q 12. What are the Use/Benefits of Television and Video in Education?

Ans:- Benefits of Educational Television:-



With so much controversy surrounding the effects of television on the minds of young people, there is concern that TV is doing more harm than good. Since many channels are geared toward an adult audience, stick to channels like PBS, History Channel, Discovery Channel, and Animal Planet for your kids. With supervision and monitoring, television can actually be a positive experience.