**COMPUTER STUDIES JSS 3**

**FIRST TERM**

**SCHEME OF WORK**

1. INTERNET
2. USE OF SEARCH ENGINES
3. DIGITAL DIVIDE I
4. DIGITAL DIVIDE II
5. DIGITAL LITERACY I
6. DIGITAL LITERACY II
7. DATABASE
8. FORMS OF DATABASE
9. SPREAD SHEET
10. SPREADSHEET PACKAGES

**WEEK 1**

**Topic: Internet**

Content:

The term "Internet" is short for International Network, or simply NET. It encompasses all computers worldwide connected together to share resources and information regardless of distance or geographical location. The Internet serves as a global communication medium, enabling people from all corners of the world to exchange, retrieve, disseminate, and store information. It effectively transforms the world into a global village, where users, including government, military, educational, and commercial institutions, become interconnected. It's important to note that no individual, company, government, or country can claim sole ownership of the Internet. Computers within the Internet are linked via various communication equipment, such as wired or wireless telephone lines and satellites.

What is the Internet?

The Internet, or International Network, is an electronic means of communication via a computer network, enabling people worldwide to access information within seconds. It facilitates the exchange, retrieval, dissemination, and storage of information, making it the fastest and most reliable method of data transfer. The Internet is collectively owned by telecommunication companies, and no single entity or organization can assert complete ownership over it.

Self Evaluation:

1. What is the Internet?

2. What is another term for the Internet?

E-Mail

E-mail, short for electronic mail, is a widely utilized resource on the Internet. It provides a common platform for sending and receiving electronic messages. E-mail has become an integral part of business and personal communication, offering a swift and efficient means of correspondence. Messages can be sent and received globally within seconds. Sending an e-mail involves composing the message on a computer, connecting, and dispatching it. Each user requires their unique e-mail address (e.g., adeoleganoloaniyi@yahoo.com) for effective utilization, similar to traditional letter writing that includes both the sender's and recipient's addresses.

Evaluation:

1. What is E-mail?

2. Provide an example of an e-mail address.

World Wide Web (WWW)

The World Wide Web (www) is a platform designed to present detailed information about organizations, products, and services. It comprises multimedia documents and files stored on computers connected to the Internet. These specific information repositories are referred to as websites. A website is a collection of web pages maintained by its owner. Each website has a unique address, called a Uniform Resource Locator (URL), through which users can access the desired information. A standard URL consists of three parts:

- Http://: Protocol

- www.lycos.com/: The computer's name where the information is stored

- Index: The path and filename of the retrieved file

General Self Evaluation:

1. What is the World Wide Web?

2. What is a URL?

3. How many parts can a URL be divided into?

4. Define a website.

Weekend Self Assessment:

1. Another term for the INTERNET is...

(A) NET (B) Network (C) Global Village (D) LAN

2. The INTERNET has turned the whole world into a...

(A) Computer (B) Network (C) Global Village (D) Town

3. ... is the fastest and most reliable means of data and information transfer.

(A) www (B) e-mail (C) Internet (D) Protocol

4. E-mail simply means...

(A) Internet (B) Electronic Mail (C) International Network (D) Electronic Means

5. A website is a collection of...

(A) Web Pages (B) E-mail Addresses (C) Network (D) Computers

Theory:

1. What is the World Wide Web?

2. Provide an example of an e-mail address.

**WEEK 2**

**USES OF SEARCH ENGINES**

A search engine is a software program or script available through the Internet that searches documents and files for keywords and returns the results of any files containing those keywords.

A search engine is a site on the WWW that allows you to search for other websites. It is more powerful than a web directory. It will search the web or the basis of the keyword that you give.

There are thousands of different search engines available on the Internet, each with their own abilities and features. The first search engine ever developed is considered Archie, which was used to search for FTP files and the first text-based search engine is considered Veronica.

Today, the most popular and well-known search engine is Google. Other popular search engines include AOL, Ask.com, Baidu, Bing and Yahoo.

A search engine has a huge database of internet resources such as web pages, newsgroups, programs, images etc. The major function of a search engine is that it helps to locate information on the World Wide Web.

EVALUATION

What is a search engine?

List TWO examples of search engine.

Note: THE MOST POPULAR SEARCH ENGINE IS GOOGLE.COM

Search Engine Components

Generally, there are three basic components of a search engine as listed below:

* Web Crawler
* Database
* Search Interfaces

1. Web crawler

It is also known as spiders or bots. It is a software component that traverses the web to gather information.

2. Database

All the information on the web is stored in a database. It consists of huge web resources.

3. Search Interfaces

This component is an interface between a user and the database. It helps the user to search through the database.

EXAMPLE OF SEARCH ENGINES

Search Engine Description

Google : It was originally called BackRub. It is the most popular search engine globally.

Bing: It was launched in 2009 by Microsoft. It is the latest web-based search engine that also delivers Yahoo’s results.

Ask: It was launched in 1996 and was originally known as Ask Jeeves. It includes support for match, dictionary, and conversation question.

AltaVista: It was launched by Digital Equipment Corporation in 1995. Since 2003, it is powered by Yahoo technology.

AOL.Search: It is powered by Google.

LYCOS: It is the top 5 internet portal and 13th largest online property according to Media Matrix.

Alexa: It is a subsidiary of Amazon and used for providing website traffic information.

Search engines can be used to:

To carry out research.

To search for information about peoples, places and products.

Get the definition of words, acronyms, etc.

Download applications from the internet.

To lookup other websites.

GENERAL EVALUATION

List the search engine components.

State THREE uses of search engines.

Write briefly on Google and Bing

What is web crawler?

WEEKEND ASSIGNMENT

1. A program that goes through the Internet that searches documents and files for keywords and returns the results of any files containing those keywords is called…………. A. web Crawler B. search engine C. websites D. internet
2. The following are components of search engine except…… A. web crawler B. search interface C. database D. website.
3. Which of these search engines was launched in 2009 by Microsoft A. Bing B. Google C. AOL D. LYCOS
4. ………………. is a top 5 internet portal and 13th largest online property according to Media Matrix. A. Bing B. Google C. AOL D. LYCOS
5. ……………….. is also known as spider or A. web crawler. B. Search interface C. Search engine D. Database.

THEORY

List and explain TWO examples of search engines.

What is a search engine?

**WEEK 3**

**DIGITAL DIVIDE I**

Digital Divide is used to describe the division of the world into two different groups. i.e. those that have access to the internet and those who do not have access to the internet. In other words, it is the unequal access by some members of society to information and communication technology. The term global digital divide refers to differences in technology development and access between countries or continents.

In the technology revolution, Digital divide is basically the disparity between those that have access to technology tools and those who don’t.

THOSE THAT HAVE ACCESS

* Educated people.
* People living in urban areas or cities.
* More industrially developed countries.
* People with high income.
* People with good skills, knowledge and ability to use the internet.

THOSE THAT DO NOT HAVE ACCESS

* Uneducated people
* People living in rural areas or villages.
* Less industrially developed countries.
* People with low income
* People that lack skill, knowledge and ability to use the internet.

FACTORS AFFECTING DIGITAL DIVIDE

The major factors affecting the digital divide are listed below:

* Economy factor
* Geographical factor
* Fear of technology
* Social factor
* Lack of motivation

EVALUATION

* What is the Digital Divide?
* List the factor affecting the digital divide.

GENERAL EVALUATION

* What do you understand by the term “Digital Divide”?
* Mention TWO groups of people who have access to digital technology and those who do not.
* Explain the economic factors affecting the Digital Divide.
* How does lack of motivation affect the digital divide?

WEEKEND ASSIGNMENT

1. ………………. is a term that describes the disparity between users and non-users of information technologies. A. Digit divide B. Literacy C. Digital divide D. None.
2. Which of these options describes the digital divide? A. combination of those that use ICT and that who do not B. educated and uneducated computer operator C. gap between computer literate and computer illiterate. D. all
3. Low-income earners do not benefit from the digital divide because A. they are illiterate B. high cost of technology devices. C. they are not interested in ICT D. none
4. Which of these factors describe the hindrance of the network because of forest? A. society factor B. geographical factor C. economic factor D lack of Motivation.
5. One of the following is not a factor affecting digital divide. ? A. eagerness factor B. geographical factor C. economic factor D lack of motivation.

THEORY

* What is the digital divide?
* Mention two features of the old economy.

**WEEK 4**

**DIGITAL DIVIDE II**

**OLD ECONOMY**

The old economy is the economic system mainly based on subsistence farming. It involves trade by barter. It is associated with under-developed or developing countries of the world.

**FEATURES OF OLD ECONOMY**

1. Its processes were time-consuming.
2. It required a lot of labour.
3. It was mechanically driven.
4. Scarcity of labour and low manpower development.
5. Intense labour-based production.
6. It was constrained by space, time and distance

**EVALUATION**

1. List THREE factors that affect the digital divide.
2. Explain the economic factor.

**NEW ECONOMY**

The new economy was an evolution of developed countries from an industrialized/manufacturing-based wealth creation economy to the service sector based economy. As a new economy is emerging, the old economy is fading out gradually.

**FEATURES OF NEW ECONOMY**

1. It is a digital economy.
2. It is not constrained by time, space and distance.
3. It is technologically driven.
4. It is a global economy.

**BENEFITS OF NEW ECONOMY**

1. **Globalization**: the new economy has turned the whole world into a global village.
2. **Electronic commerce**: E-commerce is the act of buying and selling over the internet facilitated by immediate payment via credit cards.
3. **Digital Economy**: the new economy involves the use of information and communication technology (ICT) with the use of computers and telecommunication equipment for information processing.
4. **Job opportunities**: New economy emphasizes more on what you know, what you have to offer and what you are prepared to do.

**COMPARISON OF THE OLD ECONOMY AND NEW ECONOMY**

|  |  |
| --- | --- |
| **Old Economy** | **New Economy** |
| 1. Cost of business was high. | Cost is cheaper. |
| 1. It was a manual processing era. | Automated processing era. |
| 1. It was mechanically driven. | It is technology-driven. |
| 1. The processing speed was slow. | It is fast in processing. |
| 1. It required a lot of labour. | It requires a few labour force. |

**GENERAL EVALUATION**

1. Differentiate between New economy and Old economy
2. List and explain TWO features of new economy.
3. How is new economy driven by technology?
4. Explain the term Globalization.

**WEEKEND ASSIGNMENT**

1. Which of the economy is mechanically driven? A. new economy B. digital economy C. old economy D. none
2. The old economy is constrained by time because of………A. lack of enough manpower B. time is too short C. it is mechanically driven D. none
3. Which of the options describe new economy? A. industrial Age B. machine age. C. technology-driven age D. electrical driven age
4. Which of the economy is driven by technology? A. old economy B. ancient economy C. new economy D. A and B.
5. Which of the economy uses more of manpower? A. old economy B. ancient economy C. new economy D. A and B.

**THEORY**

1. Differentiate between old economy and new economy.
2. State two features of both economy.

**WEEK 5**

**DIGITAL LITERACY I**

The term digital describes electronic technology that generates stores and processes data in terms of two states which is either positive or negative, 0 or 1.

However, literacy is the ability to read and write or the ability to use language to read, write, listen and speak.

Digital literacy is a term that refers to someone’s ability to understand, organize, locate, analyze, and evaluate information by using digital forms of technology. It includes writing papers, creating multimedia presentations, and posting information about yourself or others. It is also the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify access, manage, integrate, evaluate, analyze and synthesize digital resources.

DEFINITION: Digital literacy is the ability to use information and communication technologies to find, evaluate, create and communicate information.

It involves the use of digital devices such as smartphones, tablets, laptops and desktop PCs for the purpose of communication, expression, collaboration and advocacy.

It was initially focused on digital skills and use of a computer but has been shifted to using network devices including internet and social media.

EVALUATION

Define digital literacy.

Differentiate between digital literacy and digital illiteracy.

However, digital literacy is distinct from computer literacy and digital skills.

Computer literacy refers to knowledge and skills in using computers such as desktop PCs and laptops. It focuses on practical skills in using software application packages.

Digital skills are limited to practical abilities in using digital divides such as laptops and smartphones.

Digital literacy is a combination of the two terms of computer literacy and digital literacy.

CHARACTERISTICS OF DIGITAL LITERACY

Ability to use digital tools to identify, manage and access, evaluate, integrate and analyze digital resources.

Ability to use information responsibly.

Development of analytical skills, critical thinking skills, writing and communication skills.

Digital literacy provides the technical fluency skills needed to engage with computers and the internet.

GENERAL EVALUATION

* Differentiate between digital literacy and computer literacy.
* List TWO characteristics of digital literacy.
* Define digital literacy.
* Who are digital literates?

WEEKEND ASSIGNMENT

1. …………… describes the knowledge and skills in using computers such as desktop PCs and laptops. A. Digital literacy B. Computer Literacy C. Digital skills D. Digital divide
2. ……………….. literacy is the ability to use information and communication technologies to find, evaluate, create and communicate information. . A. Digital literacy B. Computer Literacy C. Digital skills D. Digital divide
3. One of these options is a characteristic of digital literacy. A. development of analytical skills. B. increasing social life C. meeting new people D. none
4. One’s ability to understand, organize, locate, analyze, and evaluate information by using digital forms of technology. A. Digital divide B. digital literacy C. digital skills D. None
5. …………….is limited to practical abilities in using digital devices such as laptops and smartphones. A. Digital skill B. Digital literacy C. Digital divide D. None

**THEORY**

* Define digital literacy.
* Mention THREE characteristics of digital literacy.

**WEEK 6**

DIGITAL LITERACY II

USES OF DIGITAL LITERACY

In Education: digital literacy is more than having the knowledge of how to use a computer, what your software program does or the function of the hardware but also about using that knowledge to actually facilitate the learning process. Educators are often required to be certified in digital literacy to teach certain software, and more prevalently to prevent plagiarism among students.

In Society: it helps to communicate and keep up with societal trends. Literacy in social network services and web sites help people stay in contact with others, pass timely information and even sell goods and services.

In Workforce: those who are digitally literate are more likely to be economically secure. Many jobs require a working knowledge of computers and the internet to perform basic functions.

Digital composition: is a new type of composition that focuses on technology’s impact on the writing environment. The goal of digital composition is that it increases the ability to produce a relevant, high-quality product instead of just paperwork.

Social Media: Digital literacy allows digital literates to have major voices online through different social media platforms.

EVALUATION

* Explain digital composition.
* What do you understand by digital literacy?

BENEFITS OF DIGITAL LITERACY

* It has led to great increases in the information that can be quickly accessed.
* Digital competence helps the citizenry find new opportunities for a better life.
* It saves time and money by paying bills, applying for jobs and all online transactions.
* Digitally literate computer owners are far more likely to incorporate the internet into their daily lives.

GENERAL EVALUATION

* List THREE uses of digital literacy.
* Differentiate between digital literacy and computer literacy.
* What is digital composition?
* How does digital literacy affect social media?

WEEKEND ASSIGNMENT

1. Which of the options increases the ability to produce a relevant, high-quality product instead of just paperwork? A. Social media B. Digital divide C. digital composition D. All
2. …………….. helps people to communicate and keep up with societal trends. A. Social media B. Digital literacy C. digital composition D. All
3. Digital literacy allows people to improve……….A. get job B. their knowledge C. friendship relationship. D. none
4. …………..helps to increase information acquisition. A. Social media B. Digital divide C. Digital literacy D. All
5. One’s ability to understand, organize, locate, analyze, and evaluate information by using digital forms of technology is. A. digital divide B. digital literacy C. digital skills D. None

THEORY

* List and explain TWO uses of digital literacy.
* Mention TWO benefits of digital literacy.

**WEEK 7**

**FORMS OF DATABASE**

There are various forms or ways by which a database can be set up. They include:

* Flat file database
* Relational database
* Hierarchical database
* Network database
* Operational database
* Distributed database
* End-user database

FLAT FILE DATABASE: This is the traditional data file storage system ideal for storing small amounts of data that needs to be humanly readable or edited by hand. They are called flat because they contain only one table. The disadvantage is that flat files can be corrupted easily.

RELATIONAL DATABASE: This is the most common of all the different types of database, files are organized in tables called relations. Each table has a key filed which is used to connect to other tables. Hence the tables are connected through several key fields.

HIERARCHICAL DATABASE: This form of databases has a tree-like structure. In this database, a single table acts as the root of the database from which other tables are connected. All windows operating system operates a tree-like database.

EVALUATION

* Mention the forms of databases.
* Explain relational database

NETWORK DATABASE: This database was designed to solve some of the more serious problems with the hierarchical database model. Visually network database looks like a hierarchical database.

DISTRIBUTED DATABASE: This form of database is stored on different location connected by a client/server network. Data that is been stored are transmitted through a network. Each workgroup may have their own database and are connected through a network.

EXAMPLES OF DATABASE

* Microsoft Access
* Microsoft SQL server
* Sybase
* FoxBASE
* Oracle

GENERAL EVALUATION

* Write short notes on the distributed database and flat file database
* What is a database?
* What is a relational database?
* What differentiate relational database other forms of databases?

WEEKEND ASSIGNMENT

1. Which of the database connects several tables? A. network database B. flat-file database C. relational database D distributed database
2. Which of the databases is like tree structure? A. network database B. flat-file database C. relational database D. distributed database
3. One of these applications is not a database application. A. oracle B. foxBASE C. spreadsheet D. MS Access
4. Which of the databases was designed to solve more problem? A. network database B. flat-file database C. relational database D. distributed database
5. All but one is not among the types of database. A. network database B. flat-file database C. digital database D. distributed database

THEORY

* Why is the relational database mostly used?
* Explain network database

**WEEK 8**

SPREAD SHEET

Spreadsheets are like lined paper with columns. The sheet itself comprises of columns (vertical) and rows (horizontal) which are in turn, made up of cells. A spreadsheet is the computer equivalent of a paper ledger sheet.

A spreadsheet can be defined as the combination of rows and columns used in performing arithmetic calculations. It was first constructed in 1979 and has developed into one of the most widely used software products during the 1980s. It is widely used in a diverse range of disciplines such as mathematics, engineering, science, medicine, the arts, social science, accounting and education.

SPREADSHEET PACKAGE

An electronic spreadsheet is an application package used mostly in accounting, statistics, financial and inventory control.

Spreadsheet package is a software that allows the use of numerical data and thereby performing automatic calculations on numbers contained in a table. Spreadsheet packages are used to handle accounting problems, financial analysis, budgeting, charting and graphing, scientific applications, inventory, statistical data, etc.

In a spreadsheet, as you enter the numbers, the computer puts them on to the screen in neat columns. You can tell the program to compute the totals, subtotals, percentages and show them on the screen faster than your eye can blink.

TYPES OF SPREADSHEET

* Lotus 1-2-3
* SuperCalc
* Visicalc
* Microsoft Excel
* Corel Quattro.
* StatView

EVALUATION

* What are spreadsheets?
* Mention THREE types of spreadsheet applications.

Microsoft Excel is preferable to the other earlier packages because:

* It is user friendly.
* It is flexible.
* It contains advanced features.

USES OF SPREADSHEET

* Spreadsheets are used for calculations of large figures
* They are used to enter text, numerical values and formulas into electronic worksheets.
* We use spreadsheets to view data in various formats (pie charts, line graphs and bar graphs).
* They can be used for collection and records analysis.
* They are used in preparing budgets.
* They are used for preparing examination results.

GENERAL EVALUATION

* List THREE uses of spreadsheet applications.
* Why is Ms excel more preferable than other spreadsheet programs.
* List various spreadsheet formats.
* Apart from Microsoft excel, list TWO other types.

WEEKEND ASSIGNMENT

1. Which of these programs can calculate large numbers? A. Ms word B. Ms access B. spreadsheet programs. D. all
2. An analysis can be made with which of these applications. A. Ms word B. Ms access B. spreadsheet programs. D. all
3. All except one is not an example of spreadsheet programs. A. Lotus 1-2-3 B. Supercal C. Visicalc D. Ms Word.
4. …………….contains rows and columns. A. Spreadsheet B. Workbook C. Ms word. D. All
5. Preparing examination results can easily be computed with………… A. spreadsheet B. workbook C. Ms word. D. all

**THEORY**

* Define a spreadsheet program
* List THREE spreadsheet program

**WEEK 9**

SPREAD SHEET PACKAGES

Spreadsheets are like lined paper with columns. The sheet itself comprises of columns (vertical) and rows (horizontal) which are in turn, made up of cells. A spreadsheet is the computer equivalent of a paper ledger sheet.

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* Microsoft Excel
* Corel Quattro.
* StatView

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4. …………….contains rows and columns. A. Spreadsheet B. Workbook C. Ms word. D. All
5. Preparing examination results can easily be computed with………… A. spreadsheet B. workbook C. Ms word. D. all

THEORY

* Define spreadsheet program
* List THREE spreadsheet program