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CCA FINAL ASSIGNMENT REPORT

CCA-101: Fundamentals of IT & Programming Assignment

A

PROJECT REPORT

Submitted in partial fulfillment of require for the award

Of certificate of computer application

Submitted to…

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CCA-101: Fundamentals of IT & Programming Assignment

Q1: What are the four fundamental parts of computer? Explain it with the help of diagram.

Input device: - an input device is a piece of equipment used to provide data and control signals to an information processing system such as a computer or information appliance. Examples of input devices include keyboards, mouse, scanners, [[digital camera] The]s, joysticks, and microphones.

Central processing unit(CPU):- central processing unit (CPU), also called a central processor, main processor or just processor, is the electronic circuitry within a computer that executes instructions that make up a computer program. The CPU performs basic arithmetic, logic, controlling, and input/output (I/O) operations specified by the instructions in the program. The computer industry used the term "central processing unit" as early as 1955.

Primary Memory: - Primary memory is computer memory that is accessed directly by the CPU. This includes several types of memory, such as the processor cache and system ROM. However, in most cases, primary memory refers to system RAM.

Output: - An output device is any piece of computer hardware equipment which converts information into human-readable form. It can be text, graphics, tactile, audio, and video. Some of the output devices are Visual Display Units i.e. a Monitor, Printer, Graphic Output devices, Plotters, Speakers etc.

Diagram of Computer:-

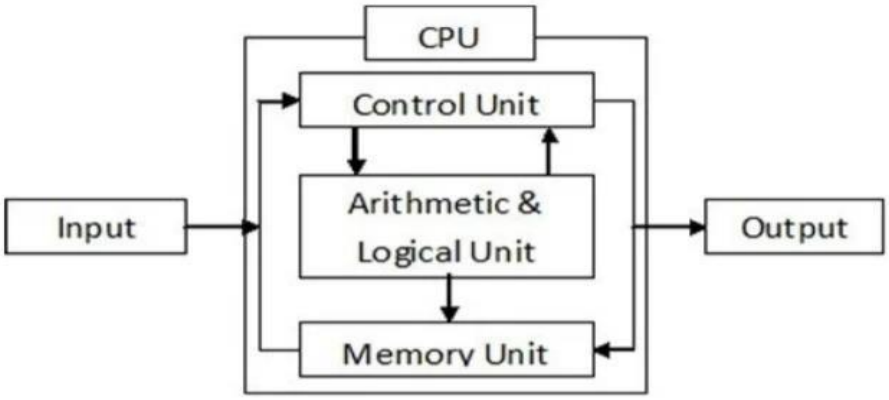

Fig. Block Diagram of Computer

Q2: Discuss about the classification of computers based on size and capacity.

Classification of computer based on size and capacity:-

a) **Microcomputer (pc)**
   A microcomputer is the smallest general purpose processing system. The older pc started 8 bit processor with speed of 3.7MB and current pc 64 bit processor with speed of 4.66 GB. Examples: - **IBM PCs, APPLE computers**

b) **Minicomputer: -** A minicomputer is a medium-sized computer. That is more powerful than a microcomputer. These computers are usually designed to serve multiple users simultaneously (Parallel Processing). They are more expensive than microcomputers. Examples: **Digital Alpha, Sun Ultra.**

c) **Mainframe computers: -** Computers with large storage capacities and very high speed of processing (compared to mini- or microcomputers) are known as mainframe computers. They support a large number of terminals for simultaneous use by a number of users like ATM transactions. They are also used as central host computers in distributed data processing system.
Examples: - **IBM 370, S/390.**

d) **Supercomputer: -** Supercomputers have extremely large storage capacity and computing speeds which are many times faster than other computers. A supercomputer is measured in terms of tens of millions Instructions per second (MIPS), an operation is made up of numerous instructions. The supercomputer is mainly used for large scale numerical problems in scientific and engineering disciplines such as Weather analysis.
Example: - **IBM Deep Blue.**

Q3: What is the meaning of computer generation? How many Computer Generations are defined? What technologies were/are used?

Generation in computer terminology is a change in technology a computer is/was being used. Initially, the generation term was used to distinguish between varying hardware technologies. Nowadays, generation includes both hardware and software, which together make up an entire computer system. The first integrated circuits contained only a few transistors and so were called "Small-Scale Integration (SSI). They used circuits containing transistors numbering in the tens. They were very crucial in development of early computers. SSI was followed by introduction of the devices which contained hundreds of transistors on each chip, and so were called "Medium-Scale Integration (MSI)MSI were attractive economically because which they cost little more systems to be produced using smaller circuit boards, less assembly work, and a number of other advantages. Microprocessor chips produced in 1994 contained more than three million transistors. ULSI refer to "Ultra-Large Scale Integration" and correspond to more than 1 million of transistors. However there is no qualitative leap between VLSI and ULSI, hence normally in technical texts the "VLSI" term cover ULSI.

Q4: Differentiate between Volatile & Non- Volatile memories.

s.no	Volatile memory	Non volatile memory
1.	Volatile memory is the type of memory in which data is lost as it is powered-off.	Non-volatile memory is the type of memory in which data remains stored even if it is powered-off.
2.	Contents of Volatile memory are stored temporarily.	Contents of Non-volatile memory are stored permanently.
3.	It is faster than non-volatile memory.	It is slower than volatile memory.
4.	RAM (Random Access Memory) is an example of volatile memory.	ROM(Read Only Memory) is an example of non-volatile memory
5.	In volatile memory, data can be easily	In non-volatile memory, data cannot be easily

	transferred in comparison to nonvolatile memory.	transferred in comparison to volatile memory.
6.	In Volatile memory, process can read and write.	In Non-volatile memory, process can only read.
7.	Volatile memory is more costly per unit size.	Non-volatile memory is less costly per unit size.

Q5: Distinguish among system software, application software and open source software on the basis of their features.

System software: - System software is a type of computer program that is designed to run a computer's hardware and application programs. If we think of the computer **system** as a layered model, the **system software** is the interface between the hardware and user applications.

Features of system software:-

System Software is closer to the system.

Generally written in a low-level language.

The system software is difficult to design and understand.

Fast in speed.

Less interactive.

Smaller in size.

Hard to manipulate

Application software: - Application software is a program or group of programs designed for end users. Examples of an application include a word processor, a spreadsheet, an accounting application, a web browser, an email client, a media player, a file viewer, simulators, a console game or a photo editor

Features of application software:-

Perform more specialized tasks like word processing, spreadsheets, email, photo editing, etc.

It needs more storage space as it is bigger in size.

Easy to design and more interactive for the user.

Generally written in a high-level language.

Open source software: - Open-source software is a type of computer software in which source code is released under a license in which the copyright holder grants users the rights to use, study, change, and

distribute the software to anyone and for any purpose. Open-source software may be developed in a collaborative public manner.

Features of open source software:-

Lesser hardware costs. ...

High-quality software. ...

No vendor lock-in ...

Integrated management. ...

Simple license management. ...

Lower software costs. ...

Abundant support. ...

Scaling and consolidating.

Q6. a) Create a file in MS-word to insert a paragraph about yourself and save it with file name "yourself". Describe all steps involved in it.

To open **Microsoft Word**, click on the Word icon ("W") on the toolbar or desktop.

An open (and blank) **Word document** will open on the screen.

Enter **a paragraph about yourself.**

When **document** is finished, click on **"File"** on the standard toolbar at the top of screen.

Click on **"Save As".**

Q6 b) Write steps regarding followings

To change the font style

To change the font size

To change the font color

To highlight (in yellow) the line that reads "need to get IMS's address".

Steps to change the font style:-

Go to Format > **Font** > **Font**. You can also press and hold. + D to open the **Font** dialog box.

Select the **font** and size you want to use.

Select Default, and then select yes.

Select OK.

Steps to change the font size:-

Select the text or cells with text you want to change. To select all text in a Word document, press Ctrl + A.

On the **Home** tab, click the font size in the **Font Size** box.

Steps to change font color:-

Select the text that you want to change.

On the **Home** tab, in the **Font** group, choose the arrow next to **Font Color**, and then select a color.

Q7. Create a file in MS-Word for the following document and save it with file name 'ms_word'. Describe all steps involved in it.

Steps of create a file in ms word:-

1. The Start button in the lower-left corner of your screen gives you access to all programs on your PC—Word included. To start Word:
   choose Start → All Programs → Microsoft Office → Microsoft office word.
2. And then enter the data
   MS WORD MS
   WORD is a widely used commercial word processor developed by Microsoft.
   Ms Word is application software, which is capable of
   Creating,
   Editing,
   Saving
   Printing and type of document
   And save this file name "ms word".

Q8. Create a file in MS-word for the following document and save it with file name 'equations'. Describe all steps involved in it.

Choose Insert > Equation and choose the equation you want from the gallery.

After you insert the equation the Equation Tools Design tab opens with symbols and structures that can be added to your equation.

$$x2 + y5 = 30$$

$$z3 + q4 = 50$$

$$a2 + b8 = y2 + y8$$

Q9. Create a file in MS-word that convert existing highlight text to table as shown below and save it as file name 'text to table'. Describe all steps involved in it.

START MS WORD?

1. Click on start button and click then run option run dialog box will be appear o screen.

2. CLICK START PROGRAM-all programs- Microsoft office word 2007.

Select the text that you want.

Select the text that you want to convert, and then click **Insert > Table > Convert Text to Table.**

In the **Convert Text to Table** box, choose the options you want.

Under **Table size**, make sure the numbers match the numbers of columns and rows you want.

Under **AutoFit behavior**, choose how you want your table to look. Word automatically chooses a width for the table columns. If you want a different column width, choose one of these options.

Under **Separate text at**, choose the separator character you used in the text.

Click **OK**.

Q10. Create a file in MS-Word to insert a table in the document. Describe all steps involved in it.

Open a blank **Word** document.

In the top ribbon, press **Insert**.

Click on the **Table** button.

Either uses the diagram to select the number of columns and rows you need, or click **Insert Table** and a dialog box will appear where you can specify the number of columns and rows.

The blank **table** will now appear on the page.

Q11. Create a following worksheet in MS-excel and save it with name 'book1'.

Roll no.	Name	Marks
1	N1	60
2	N2	70
3	N3	80
4	N4	90
5	N5	40
6	N6	50
7	N7	77

8	N8	45
9	N9	85
10	N10	55

Q12. Calculate the following things of a range (C2:C11) of data in the worksheet created in question no 10.

The sum of the marks using AutoSum in a range of cells (C2:C11)

Average of the marks in a range of cells (C2:C11)

Highest marks in a range of cells (C2:C11)

Minimum marks in a range of cells (C2:C11)

Q13 a) Describe various steps involved in the following

To modify column width of a worksheet

To modify the row height of a worksheet

To delete rows and columns of a worksheet

Ans:-

Steps of modify column width of worksheet:-

Select the **columns** you want to **modify**.

Click the Format command on the Home tab. The format drop-down menu appears.

Select **Column Width**. Increasing the **column width**.

The **Column Width** dialog box appears. Enter a specific measurement.

Click OK.

Steps of modify column height of a worksheet:-

Locate and click the Select All button just below the name box to select every cell in the **worksheet**. Position the mouse over a row line so the cursor becomes a double arrow.

Click and drag the mouse to increase or decrease the row **height**, then release the mouse when you are satisfied.

Steps of delete rows and column in worksheet:-

Right-click in a table cell, **row**, or **column** you want to **delete**.

On the menu, click **Delete** Cells.

To **delete** one cell, choose Shift cells left or Shift cells up. To delete the row, click **Delete** entire **row**. To **delete** the **column**, click **Delete** entire **column**.

Q13 b) Describe following terms in the worksheet

Absolute reference and relative reference in formula

Cell address

Ans:-

Absolute reference and relate

ve reference in formula?

There are two types of cell **references: relative** and **absolute. Relative** and **absolute references** behave differently when copied and filled to other cells. **Relative references** change when a formula is copied to another cell. **Absolute references**, on the other hand, remain constant no matter where they are copied.

Cell address

Cell address is an alphanumeric value used to identify a specific **cell** in a spreadsheet. Each **cell reference** contains one or more letters followed by a number. The letter or letters identify the column and the number represents the row.

Q14. a) What tools are available to customize our PowerPoint presentation?

The tools are available to customize our PowerPoint presentation are:-

Persecutor. Persecutor is a tool used by designers to create 3D images on PowerPoint presentations. ... Pivot Viewer. The Silver light Pivot Viewer is yet another tool frequently used by PowerPoint presentation designers. ...

Autodesk 3DS Max. ...

Visual Bee PowerPoint Add-In. ...

Smart Art. ...

Animations and Transitions. ...

Q14 b) Write the steps for the following action for creation of power point presentation Open a Blank presentation?

Steps of open a blank a document:-

If you already have a **file open** in Word.

You can create a new **document** by clicking **File**>New.

You can also use the shortcut Ctrl+N (Commanding for Mac).

To **open a blank document**, double-click the **blank document** option.

Save the presentation as Lab1.pptx.

Steps to save the presentation:-

To save the presentation goes to the **file**.

Click on **save** as option.

And save the presentation giving the name **"Lab1.pptx".**

Add a Title to the first slide: the name of your college

Steps of add a title to the slide:-

Go to the first slide of presentation.

Add the title name "abs college".

And save it by press "**curls"**.

Type your first name and last name in the Subtitle section

Steps of type first name and last name in the subtitle section.

There are many free software packages (such as Aegis or Subtitle Workshop), that allow you to type in the subtitles yourself and lock them to a specific time code (e.g. 00:45-00:51). There is a thing you should keep in mind – adding the subtitles manually is a very time-consuming process. Moreover, you will have to dedicate some time to learn the interface and shortcuts of the software of your choice.

Add a New Slide which has a Title and Content.

Steps of add a new slide:-

In the **slide** preview pane on the left, left-click with your mouse in-between two **slides** where you want to insert a **slide**.

In the PowerPoint Ribbon, on the Home or Insert tab, click the **New Slide** option. In the drop-down menu that opens, select the type of **slide** to insert.

Q15. Write steps for creation of a set of PowerPoint slides that demonstrates your skill to use the tools of PowerPoint. It should include the following things?

Title slide &bullet list Inserting Excel Sheet

Clip art and Text

Slide show effects

Click the **Start** button.

Click **All Programs** option from the menu.

Search for **Microsoft Office** from the sub menu and click it.

Search for **Microsoft PowerPoint** from the submenu and click it.

Go to the **"paragraph"** icon and select the bullet where you want.

To insert **clip art and text** go to the **insert tab** and click on **clip art** and choose the picture you want to appear on page.

And then to slide show effect select the entire slide and go to the **"format"** and select the slide show effect .and click on that.

Q16. What is the difference between Machine Language and High Level Language?

s.no.	Machine language	High level language
1.	It is a machine friendly language.	It is programmer friendly language
2.	Machine language is high memory efficient.	High level language is less memory efficient.
3.	It is tough to understand.	It is easy to understand.
4.	It is complex to maintain comparatively.	It is simple to debug.
5.	It is complex to maintain comparatively.	It is simple to maintain

Q17. Discuss about different data types of C programming Language?

To use any language in communication (to write/to speak), we need to understand its grammar first. In the case of a programming language like **C**, the scenario is same as in the case of a communication language. We need to understand the grammar of C programming language first. So here begins:-

Here are 4 data types in C language. They are:-

Int – This data type is used to define an integer number (-….-3,-2,-1, 0, 1, 2, 3….). A single integer occupies 2 bytes.

Char – Used to define characters. A single character occupies 1 byte.

Float – Used to define floating point number(**single precision**). Occupies 4 bytes.

Double – Used for double precision floating point numbers (**double precision**). Occupies 8 bytes.

Q18. Find the output of the following expressions?

X=20/5*2+30-5

x=30

Y=30 – (40/10+6) +10

y=30

Z= 40*2/10-2+10

Z=16

Q19. Describe the syntax of the following statements?

If – else statement syntax:-

```
if (test expression)
 { // statements to be executed if the test expression is true
 }
```

For loop

```
for (initialization Statement; testExpression; updateStatement)
 {
 // statements inside the body of loop
 }
```

While loop Syntax While (condition test)

```
{
 //Statements to be executed repeatedly
 // Increment (++) or Decrement (--) Operation
}
```

Do-while loop - A do...while loop is similar to a while loop, except the fact that it is guaranteed to execute at least one time.

```
 while (testExpression)
 {
 // statements inside the body of the loop
```

Q20. Find the output of the following program segments?

a	b	c

#include<stdio.h>
int main()
{
int i;
for (i=1; i<2; i++)
{
printf("IMS Ghaziabad\n");
}
}
	#include<stdio.h>
	int main()
	{
	int i = 1;
	while (i <= 2)
	{
	printf("IMS Ghaziabad\n");
	i = i + 1;
	}
	}
		#include<stdio.h>
		void main()
		{
		int a = 10, b=100;
		if(a > b)
		printf("Largest number is %d\n", a);
		else
		print("Largest number is %d\n", b);
		}

IMS Ghaziabad	IMS Ghaziabad IMS Ghaziabad	Compilation failed due to following error(s). main.c:14:9: warning: missing terminating " character