IS 201

Tutorial -2

first Semester 1438-1439

For Sections

31275 and 31279

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**Q1.What is the function of a CPU (Central Processing Unit)?**

**Answer:**

The **CPU** Central processing unit (CPU)consists of:

* 1. Arithmetic/logic unit (ALU): performs calculations and makes logical comparisons
	2. Control unit: accesses, decodes and coordinates data in CPU and other devices

**Q2. What is the ratio between the following memory units( Megabyte ”MB” and Gigabyte ”GB”)?**

**Hint: Show how you can convert one unit to the other.**

**Answer: 1 Mega Byte** = $2^{20}$ bytes ($10^{6}$ bytes approximately)

**1 Giga Byte** = $2^{30}$ bytes ($10^{9}$ bytes approximately)

Therefore, the **ratio** between the two units is:

1GB:1MB = $ 2^{30}÷ 2^{20}$= $ 2^{10}$(1024 or $10^{3}$ approximately)

(i.e.: **1 GB = 1000 MB**)

Alternatively, we can say that:

1 MB: 1 GB = $ 2^{20}÷ 2^{30}$ = $ 2^{-10}$(1/1024 or $ 10^{-3}$approx.)

(i.e.: **1 MB = 0.001 GB**)

**Q3. R A M and R O M are acronyms for what?**

**Answer**:

**R A M**: is an acronym for: **R**andom **A**ccess **M**emory.

**R O M**: is an acronym for: **R**ead**O**nly**M**emory.

**Q4. Define the following two terms:**

1. **Multiprocessing**
2. **Grid computing**

**Answer:**

**Multiprocessing:**simultaneous execution of two or more instructions.

**Grid computing**:collection of computers working to solve a common problem.

**Q5. Classify the following devices as input devices, output devices or both.**

1. **Printer**
2. **Bar code Scanner.**
3. **Plotter**
4. **Keyboard.**
5. **Mouse.**
6. **Touch-sensitive screen.**

**Answer:**

The printer and plotter are **output** devices.

The Bar code scanner, keyboard and mouse are **input** devices.

The Touch-sensitive screen acts as **both** an **inputand** an**output** device at the same time.

**Q6.Name**an “**Application software”** that you personally use and another that is used by business organizations.

**Answer**: Microsoft office (Word, Excel and Power point) is an example of an“Application software”, that I use.

In business organizations, the software that handles the **payroll is** an example ofsuch **software.**

**Q7. Mention one (1) function of Systems software. List two(2) different types of such software.**

**Answer:**

**An importantfunction of System software is**controlling operations of computer hardware.

Two different types **are:**

**(1)**Operating systems

**(2)** Utility programs

**Q8. Mention three (3) activities performed by an OS (Operating system).**

**Answer:**

The OS (Operating system) is the manager of all resources of a computer. Three of its activities are:

(1)**Performing** common **computer hardware functions** like retrieving data from storage devices (like disks)and sending data to output devices(like printers).

(2)**Providing** a **user interface** by allowing individuals to command and access the computer system whether by using text commands(Computer-based user interface) or icons and menus(Graphical User Interface”GUI”).

(3) **Memory Management**by converting a user’s request for data or instructions to the physical location where the data or instructions are stored

**Q9. Match (A) with (B), such that the ststement in (B) best fits to match the statement in(A):**

|  |  |
| --- | --- |
| Column (A) | Column (B) |
| **(1)One(1) Mega byte** | **(a)is the manager of all resources of the computer** |
| **(2)Proprietary Software** | **(b)links Application software to the Operating System.** |
| **(3)One(1) Giga byte** | **(c)equals 1024 kilo bytes** |
| **(4)Linux and UNIX** | **(d)are examples of personal application Software** |
| **(5)An (API)** | **(e)equals 1024 mega bytes** |
| **(6)Word and Excel** | **(f)are examples of Operating systems.** |
| **(7)A (GUI)** | **(g)isa unique program for a specific application usually owned by a single company.** |
| **(8)An (OS) operating system** | **(h)uses icons and menus to send commands to the computer system.** |
| **(9)An off-the-shelf software** | **(i)support team work whether people are in the same location or dispersed** |
| **(10)Work group Application Software** | **(j)are programs that manage a company’s vital business operations for an entire multisite global organization** |
| **(11) An (ERP)** | **(k)Not Applicable** |
| **(12) Accounts payable and Inventory Control** | **(l)are examples of Enterprise Application Software** |

**Answer**: **1.c 2.g 3.e 4.f 5.b 6.d 7.h 8.a 9.k 10.i 11.j 12.l**

**Q10.Whatis a software bug?**

**Answer:**

A **software bug**is defect in a computer program that keeps it from performing as it is designed to perform.