**Rajasthan Institute of Engineering & Technology, Jaipur**

**University Roll No. \_\_\_\_\_\_\_\_\_\_** 1st Year MBA. I Semester 1st Mid Term Examination, OCTOBER – 2018

Subject: - ITM SET-A

Time: - 2 Hrs. [Maximum Marks: -20] [Min. Passing Marks: 08]

Instructions to the Candidates:

Attempt any 4 questions from Section A and Section B is Compulsory.

**Section A**

1. Introduce a computer or define?

Ans. A computer is a multipurpose electronic device that can receive, process and store data. They are used as tools in every part of society together with the Internet. Computers nowadays are complex; there are a lot of different components inside them, and they all serve different purposes. They all need to work together for the computer to work; knowing how a computer works makes it easier to use a computer by being able to understand how a computer will respond. (3)

1. What is memory?

Ans. Computer memory is any physical device capable of storing information temporarily or permanently. For example, Random Access Memory (RAM), is a volatile memory that stores information on an integrated circuit used by the operating system, software, and hardware. When a program such as your Internet browser is open, it is loaded from your hard drive and placed into RAM, which allows that program to communicate with the processor at higher speeds. Anything you save to your computer, such as a picture or video, is sent to your hard drive for storage. (3)

1. What is a classification of software?

Ans. **Classification of Software**

Software can be applied in countless fields such as business, education, social sector, and other fields. It is designed to suit some specific goals such as data processing, [information](http://ecomputernotes.com/fundamental/information-technology/what-do-you-mean-by-data-and-information) sharing, communication, and so on. It is classified according to the range of potential of applications. These classifications are listed below.

**• System software:**This class of software manages and controls the internal operations of a computer system. It is a group of programs, which is responsible for using computer resources efficiently and effectively. For example, an [operating system](http://ecomputernotes.com/fundamental/disk-operating-system/what-is-operating-system) is a system software, which controls the hardware, manages memory and multitasking functions, and acts as an interface between application programs and the computer.

**• Real-time software:**This class of software observes, analyzes, and controls real world events as they occur. Generally, a real-time system guarantees a response to an external event within a specified period of time. An example of real-time software is the software used for weather forecasting that collects and processes parameters like temperature and humidity from the external environment to forecast the weather. Most of the defence organizations all over the world use real-time software to control their military hardware.

1. Operating system Explain?

Ans. An operating system (OS) is the program that, after being initially loaded into the computer by a boot program, manages all the other programs in a computer. The other programs are called applications or application programs. The application programs make use of the operating system by making requests for services through a defined application program interface (API). In addition, users can interact directly with the operating system through a user interface such as a command line or a graphical user interface (GUI).

1. Introduce web designing?

Ans. Web design is the process of creating websites. It encompasses several different aspects, including webpage layout, content production, and graphic design. While the terms web design and web development are often used interchangeably, web design is technically a subset of the broader category of web development .( Websites are created using a markup language called HTML. Web designers build webpages using HTML tags that define the content and metadata of each page. The layout and appearance of the elements within a webpage are typically defined using CSS, or cascading style sheets. Therefore, most websites include a combination of HTML and CSS that defines how each page will appear in a browser.

6. What is Internet and intranet, Extranet?

Ans. A global computer network providing a variety of information and communication facilities,consisting of interconnected networks using standardized communication protocols. An intranet is a private network that is contained within an enterprise. It may consist of many interlinked local area networks and also use leased lines in the wide area network. ... The main purpose of an intranet is to share company information and computing resources among employees. An extranet is a private network that uses Internet technology and the public telecommunication system to securely share part of a business's information or operations with suppliers, vendors, partners, customers, or other businesses.

**Section B**

7. Write short notes on the following:

1. Cloud computing

Ans. Simply put, cloud computing is the delivery of computing services—servers, storage, databases, networking, software, analytics, intelligence and more—over the Internet (“the cloud”) to offer faster innovation, flexible resources and economies of scale. You typically pay only for cloud services you use, helping lower your operating costs, run your infrastructure more efficiently and scale as your business needs change. Cloud computing is a big shift from the traditional way businesses think about IT resources. Types of cloud computing

Not all clouds are the same and not one type of cloud computing is right for everyone. Several different models, types and services have evolved to help offer the right solution for your needs.

Types of cloud deployments: public, private and hybrid

First, you need to determine the type of cloud deployment or cloud computing architecture, that your cloud services will be implemented on. There are three different ways to deploy cloud services: on a public cloud, private cloud or hybrid cloud.

Public cloud

Public clouds are owned and operated by a third-party cloud service providers, which deliver their computing resources like servers and storage over the Internet. Microsoft Azure is an example of a public cloud. With a public cloud, all hardware, software and other supporting infrastructure is owned and managed by the cloud provider. You access these services and manage your account using a web browser.

Private cloud

A private cloud refers to cloud computing resources used exclusively by a single business or organisation. A private cloud can be physically located on the company’s on-site datacenter. Some companies also pay third-party service providers to host their private cloud. A private cloud is one in which the services and infrastructure are maintained on a private network.

Hybrid cloud

Hybrid clouds combine public and private clouds, bound together by technology that allows data and applications to be shared between them. By allowing data and applications to move between private and public clouds, a hybrid cloud gives your business greater flexibility, more deployment options and helps optimise your existing infrastructure, security and compliance. 4

1. Types of functional components of computers?

Ans. Introduction to Computing

Table of Contents

1.Input Unit

2.Output Unit

3.Storage Unit

4.Central Processing Unit (CPU)

5.Arithmetic and Logic Unit (ALU)

6.Control Unit

The internal architectural design of computers differs from one system model to another. However, the basic organization remains the same for all computer systems. The following five units (also called "The functional units") correspond to the five basic operations performed by all computer systems.

How a Computer Works

Input Unit

Data and instructions must enter the computer system before any computation can be performed on the supplied data. The input unit that links the external environment with the computer system performs this task. Data and instructions enter input units in forms that depend upon the particular device used. For example, data is entered from a keyboard in a manner similar to typing, and this differs from the way in which data is entered through a mouse, which is another type of input device. However, regardless of the form in which they receive their inputs, all input devices must provide a computer with data that are transformed into the binary codes that the primary memory of the computer is designed to accept. This transformation is accomplished by units that called input interfaces. Input interfaces are designed to match the unique physical or electrical characteristics of input devices to the requirements of the computer system.

See Also: Types of Computers by purpose

In short, an input unit performs the following functions.

It accepts (or reads) the list of instructions and data from the outside world.

It converts these instructions and data in computer acceptable format.

It supplies the converted instructions and data to the computer system for further processing.

Output Unit

The job of an output unit is just the reverse of that of an input unit. It supplied information and results of computation to the outside world. Thus it links the computer with the external environment. As computers work with binary code, the results produced are also in the binary form.

In short, the following functions are performed by an output unit.

It converts these coded results to human acceptable (readable) form.

It supplied the converted results to the outside world.

Storage Unit

The data and instructions that are entered into the computer system through input units have to be stored inside the computer before the actual processing starts. Similarly, the results produced by the computer after processing must also be kept somewhere inside the computer system before being passed on to the output units. Moreover, the intermediate results produced by the computer must also be preserved for ongoing processing. The Storage Unit or the primary / main storage of a computer system is designed to do all these things.

In short, the specific functions of the storage unit are to store:

All the data to be processed and the instruction required for processing (received from input devices).

Intermediate results of processing.

Final results of processing before these results are released to an output device.

See Also: Characteristics of a Computer

Central Processing Unit (CPU)

Central Processing Unit

The main unit inside the computer is the CPU. This unit is responsible for all events inside the computer. It controls all internal and external devices, performs "Arithmetic and Logical operations". The operations a Microprocessor performs are called "instruction set" of this processor. The instruction set is “hard wired” in the CPU and determines the machine language for the CPU. The more complicated the instruction set is, the slower the CPU works.

Arithmetic and Logic Unit (ALU)

The arithmetic and logic unit (ALU) of a computer system is the place where the actual execution of the instructions take place during the processing operations. All calculations are performed and all comparisons (decisions) are made in the ALU. The data and instructions, stored in the primary storage prior to processing are transferred as and when needed to the ALU where processing takes place. 4

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