

# FUNDAMENTALS OF INFORMATION TECHNOLOGY

SUBCODE:16SNMECS2

CLASS:II-B.A(ENG)

## UNIT-1

1.What is a computer?

Computer is a machine that performs calculations and process information with speed and precision. A computer can have amounts of information and solve complicated problems.

2.Write a short note on importance of computers.

Solving numerical problems

Storing and retrieving information

Creating and displaying documents and pictures

3.Characteristics of computers.

Word length,Speed,Storage,Accuracy,versatility,Automation.

4.Define microcomputer.

Microcomputers are small, single user computer based on a microprocessor. These computers have a keyboard for entering data, a monitor for displaying information, and a storage device for saving data.

5.Define minicomputer.

Minicomputer is a multiuser computer capable of supporting ten to hundreds of users simultaneously.

6.How many types of generations in computer?

Five generations:

1.First generation computers(vacuum tubes)

2.second generation computers(transistors)

3. Third generation computers(Integrated circuits)

4. Fourth generation computers(Microprocessors)

5. Fifth generation of computers(Artificial Intelligence (Present and Beyond)

7.Define supercomputer.

A super computer is a computer that performs at or near the currently highest operational rate for computers. A Supercomputer is typically used for scientific and engineering applications that must handle very large databases or do a great amount of computation .

8.Define network computers.

Network computers are computers with minimal memory, disk storage and processor power designed to connect to a network, especially the Internet.

9. What are the typical uses of the mainframes?

Mainframe computers or mainframes (colloquially referred to as "big iron") are computers used primarily by large organizations for critical applications; bulk data processing, such as census, industry and consumer statistics, enterprise resource planning; and transaction processing.

10. What are the Portable computers.

i) laptops/Notebook

ii) Subnotebooks

iii) Personal digital Assistants(PDA)

11. Use of Workstations.

Workstations are again until recently expensive powerful machines used by engineers, science and other professionals who processed a lot of data. People who need to run complex programs and display work in progress and results graphically also use workstations.

12. How are computer systems classified?

Computer systems are classified as microcomputers, minicomputers, mainframes and supercomputers.

13. How many types of micro computers are there?

The four basic types of computers are as under: Supercomputer. Mainframe Computer. Minicomputer. there are 3 types of computer, analog, digital ND hybrid.

14. What is an example of a microcomputer?

The definition of a small personal computer with a microprocessor as a central processor is an example of a microcomputer. A tiny little handheld computer device similar to a Smartphone that has a central microprocessor is an example of a microcomputer.

15. What is a micro computer used for?

A mainframe computer is a high-performance computer used for large-scale computing purposes that require greater availability and security than small-scale machines can provide. Mainframes can process requests from a number of users simultaneously, whereas a microcomputer is designed to be used by one person at a time.

16. What is minicomputer with example?

A minicomputer is also called as a mid-range computer. Minicomputers are mainly multi-users systems where more than one user can work simultaneously. Mini computer examples: IBM's AS/400e, Honeywell200, TI-990. Minicomputer can support multi-users at a time or you can say that minicomputer is a multiprocessing system.

17. Where is minicomputer used?

They were primarily designed for business applications and services that require the performance and efficiency of mainframe computers. Minicomputers are generally used as mid-

range servers, where they can operate mid-sized software applications and support numerous users simultaneously.

18. How does a microcomputer work?

A microprocessor is a single-chip CPU. ... Embedded microcontrollers are complete micros on a single chip, including the CPU, memory, and input/output circuits. But in all cases, a microcomputer is an assembly of digital logic circuits, such as gates and flip-flops, that is used to process data

19. What is a mainframe?

Mainframe computers or mainframes (colloquially referred to as "big iron") are computers used primarily by large organizations for critical applications; bulk data processing, such as census, industry and consumer statistics, enterprise resource planning; and transaction processing.

20. Why is mainframe used?

New mainframe hardware and software products are ideal for Web transactions because they are designed to allow huge numbers of users and applications to rapidly and simultaneously access the same data without interfering with each other. ... Perform large-scale transaction processing (thousands of transactions per second)

## UNIT-2

21. What is the CPU of a computer?

CPU (pronounced as separate letters) is the abbreviation for central processing unit. Sometimes referred to simply as the central processor, but more commonly called a processor, the CPU is the brains of the computer where most calculations take place.

22. What is a hardware in it?

Computer hardware is the collection of physical parts of a computer system. This includes the computer case, monitor, keyboard, and mouse. It also includes all the parts inside the computer case, such as the hard disk drive, motherboard, video card, and many others.

23. What are the types of hardware?

- Inside a personal computer: Monitor. Motherboard. CPU(Microprocessor. Main memory(RAM) Expansion cards. Power supply unit. Optical disc drive. Hard disk drive (HDD). Keyboard. Mouse.
- An example of a serial port.
- Graphics Card.
- Close-up of a Sound Card.
- Network Interface Card.

24. What are the functions of CPU?

The central processing unit (CPU) of a computer is a piece of hardware that carries out the instructions of a computer program. It performs the basic arithmetical, logical, and input/output operations of a computer system. ... The CPU is sometimes also referred to as the central processor unit, or processor for short.

25. What is peripheral devices with examples?

#### Types of Peripheral Devices

Examples of external peripherals include mouse, keyboard, printer, monitor, external Zip drive or scanner. Examples of internal peripherals include CD-ROM drive, CD-R drive or internal modem.

26. What does Microcode mean?

Microcode is the lowest specified level of processor and machine instructions sets. It is a layer comprised of small instruction sets, which are derived from machine language. Microcode performs short, control-level register operations, including multiple micro instructions, each of which performs one or more micro operations.

27. What does an ALU do?

An arithmetic logic unit (ALU) is a digital circuit used to perform arithmetic and logic operations. It represents the fundamental building block of the central processing unit (CPU) of a computer

28. What is RAM in a computer?

RAM (pronounced ram) is an acronym for random access memory, a type of computer memory that can be accessed randomly; that is, any byte of memory can be accessed without touching the preceding bytes. RAM is found in servers, PCs, tablets, smart phones and other devices, such as printers.

29. What is difference between DRAM and SRAM?

#### Key Differences Between SRAM and DRAM

SRAM is an on-chip memory whose access time is small while DRAM is an off-chip memory which has a large access time. Therefore SRAM is faster than DRAM. ... In SRAM a single block of memory requires six transistors whereas DRAM needs just one transistor for a single block of memory.

30. What is a ROM in a computer?

Short for read-only memory, ROM is a storage medium that is used with computers and other electronic devices. As the name indicates, data stored in ROM may only be read. ... Unlike RAM (random access memory), ROM is non-volatile, which means it keeps its contents regardless of whether or not it has power.

31. What is auxiliary storage used for?

#### computer memory devices

Auxiliary memory units are among computer peripheral equipment. They trade slower access rates for greater storage capacity and data stability. Auxiliary memory holds programs and data for future use, and, because it is nonvolatile (like ROM), it is used to store inactive programs

32. Which is an example of sequential access device?

A common example of sequential access is with a tape drive, where the device must move the tape's ribbon forward or backward to reach the desired information. The opposite

would be RAM (Random Access Memory) that can go anywhere on the chip to access the information.

33. What are the 10 storage devices?

○ Digital Data Storage Devices: 10 Examples

- Hard Drive Disk.
- Floppy Disk.
- Tape.
- Compact Disc (CD)
- DVD and Blu-ray Discs.
- USB Flash Drive.
- Secure Digital Card (SD Card)
- Solid State Drive (SSD)

34. What are the input and output devices?

An input device sends information to a computer system for processing, and an output device reproduces or displays the results of that processing. Input devices only allow for input of data to a computer and output devices only receive the output of data from another device.

35. What are 5 input devices?

Computer - Input Devices

Keyboard.

Mouse.

Joy Stick.

Light pen.

Track Ball.

Scanner.

Graphic Tablet.

Microphone.

36. What is output device with example?

An output device is any device used to send data from a computer to another device or user. Most computer data output that is meant for humans is in the form of audio or video. Thus, most output devices used by humans are in these categories. Examples include monitors, projectors, speakers, headphones and printers.

40. What are computer optical devices?

In general, optical or optical technology refers to anything that relates to light or vision, whether it be visible light or infrared light that performs a specific function.

... Optical storage devices use optical technology to save and retrieve data on discs, like a Blu-ray, CD, DVD

41. How do optical devices work?

Optical instruments are based on optics. They use mirrors and lenses to reflect and refract light and form images. ... A camera uses a convex lens to make a reduced image of an object. A

laser is a device that produces a very focused beam of visible light of just one wavelength and color.

42. Is a hard disk an optical storage device?

The key difference between optical storage media, such as CDs and DVDs, and magnetic storage media, such as hard drives and old-fashioned floppy disks, is in how computers read and write information to them. One uses light; the other, electromagnetism.

43. What are some examples of optical devices?

There are many kinds of optical devices, such as binoculars, lasers, microscopes, telescopes... And other optical devices used in the telecom fields, like fiber optic transceivers, fiber optic cables, fiber converters, etc.

44. What are 4 input devices?

- Keyboard. Keyboard is the most common and very popular input device which helps to input data to the computer. ...
- Mouse. Mouse is the most popular pointing device. ...
- Joystick. Joystick is also a pointing device, which is used to move the cursor position on a monitor screen. ...
- Light Pen. ...

45. What are 5 output devices?

○ OUTPUT DEVICES:

- Monitor (LED, LCD, CRT etc)
- Printers (all types)
- Plotters.
- Projector.
- LCD Projection Panels.
- Computer Output Microfilm (COM)
- Speaker(s)
- Head Phone.

46. What is output devices of computer?

An output device is any peripheral that receives data from a computer, usually for display, projection, or physical reproduction. ... Monitors and printers are two of the most common output devices used with a computer.

47. What are the four types of output?

Discuss Four Basic Categories of Output Devices of a Computer. A computer output device is used to extract information from a computer. There are visual, audio, print and data output devices. Different types of specific hardware include monitors, speakers and headphones, printers and external hard drives.

48. What is a monitor of a computer?

A computer monitor is an output device that displays information in pictorial form. A monitor usually comprises the display device, circuitry, casing, and power supply. ... Older monitors used a cathode ray tube (CRT).

49. What are the 5 types of monitor?

- Different Types of Monitors
- CRT (cathode ray tube) monitors.
- LCD (liquid crystal display) monitors.
- TFT Monitor.
- LED (light-emitting diodes) Monitors.
- DLP Monitor.
- Touch screens Monitor.
- Plasma Screen Monitor.
- OLED Monitors.

50. What is printer and type of printer?

A printer is a device that accepts text and graphic output from a computer and transfers the information to paper, usually to standard size sheets of paper. ... The best-known non-impact printers are the inkjet printer, of which several makes of low-cost color printers are an example, and the laser printer.

51. what are the 2 types of printers?

- There are usually 6 types of Impact printers that are:
  - Dot-Matrix Printers.
  - Daisy-wheel printers.
  - Line printers.
  - Drum printer.

52. What is computer software and examples?

Sometimes abbreviated as SW and S/W, software is a collection of instructions that enable the user to interact with a computer, its hardware, or perform tasks. Without software, most computers would be useless. ... The picture shows a Microsoft Excel box, an example of a spreadsheet software program.

53. What is a software in a computer?

Computer software. Software is a program that enables a computer to perform a specific task, as opposed to the physical components of the system (hardware). ... Computer software has to be "loaded" into the computer's storage (such as a hard drive, memory, or RAM).

54. What are the types of software?

There are two main types of software: systems software and application software. Systems software includes the programs that are dedicated to managing the computer itself, such as the operating system, file management utilities, and disk operating system (or DOS).

### UNIT-3

55. What are the 4 types of programming language?

- Types of Programming Languages
- Procedural Programming Language. ...
- Functional Programming Language. ...
- Object-oriented Programming Language. ...
- Scripting Programming Language. ...
- Logic Programming Language. ...

56. What are examples of programming language?

Following are some examples of the most common or famous programming languages:

CORAL: It stands for Computer Online Real-time Applications Language.

FORTRAN: It stands for Formula Translation. ...

HTML: It stands for Hyper Text Markup Language.

COBOL: It stands for Common Business Oriented Language.

57. What is the definition of programming language?

A programming language is a formal language, which comprises a set of instructions that produce various kinds of output. Programming languages are used in computer programming to implement algorithms. ... There are programmable machines that use a set of specific instructions, rather than general programming languages.

58. What is the operating system of a computer?

An operating system is the most important software that runs on a computer. It manages the computer's memory and processes, as well as all of its software and hardware. It also allows you to communicate with the computer without knowing how to speak the computer's language.

59. What are the 5 operating system?

Five of the most common operating systems are Microsoft Windows, Apple macOS, Linux, Android and Apple's iOS.

What Operating Systems Do. ...

Microsoft Windows. ...

Apple iOS. ...

Google's Android OS. ...

Apple macOS. ...

Linux Operating System.

60. What is OS and its functions?

An Operating System (OS) is an interface between a computer user and computer hardware. An operating system is a software which performs all the basic tasks like file management, memory management, process management, handling input and output, and controlling peripheral devices such as disk drives and printers.

61. What are the classifications of operating system?

- Classification of Operating System



- Multiuser OS: In a multiuser OS, more than one user can use the same system at a same time through the multi I/O terminal or through the network. ...
- Multiprocessing OS: ...
- Multiprogramming OS: ...
- Multitasking OS: ...
- Multithreading: ...
- Batch Processing: ...

62. How do operating systems work?

An Operating System (OS) is a collection of software that manages computer hardware and provides services for programs. Specifically, it hides hardware complexity, manages computational resources, and provides isolation and protection. Most importantly, it directly has privilege access to the underlying hardware.

63. What is DBMS with example?

In short, a DBMS is a database program. ... The DBMS manages incoming data, organizes it, and provides ways for the data to be modified or extracted by users or other programs. Some DBMS examples include MySQL, PostgreSQL, Microsoft Access, SQL Server, FileMaker, Oracle, RDBMS, dBASE, Clipper, and FoxPro.

64. What DBMS means?

A database management system (DBMS) is a software package designed to define, manipulate, retrieve and manage data in a database. A DBMS generally manipulates the data itself, the data format, field names, record structure and file structure.

65. What is use of DBMS?

A database management system (DBMS) is system software for creating and managing databases. The DBMS provides users and programmers with a systematic way to create, retrieve, update and manage data.

#### UNIT-4

66. How do I create a new email account?

- To create an email account:
- Log into the Control panel via [www.one.com](http://www.one.com).
- Click on the Email tile to open Mail Administration.
- Click New account.
- Enter the new email address that you want to create, and a password for the email account.
- Click Save.

67. How do I access my Gmail account?

- Sign in
- On your computer, go to [gmail.com](http://gmail.com).

- Enter your Google Account email or phone number and password. If information is already filled in and you need to sign in to a different account, click Use another account.

68. What is an email ID?

An email address is a unique identifier for an email account. It is used to both send and receive email messages over the Internet. Similar to physical mail, an email message requires an address for both the sender and recipient in order to be sent successfully.

69. What is www and Internet?

The Internet is a global network of networks while the Web, also referred formally as World Wide Web (www) is collection of information which is accessed via the Internet. Another way to look at this difference is; the Internet is infrastructure while the Web is service on top of that infrastructure.

70. What is the use of WWW in Internet?

The World Wide Web has been central to the development of the Information Age and is the primary tool billions of people use to interact on the Internet. Web resources may be any type of downloaded media, but web pages are hypertext media that have been formatted in Hypertext Markup Language (HTML).

71. What is the difference between Internet and intranet?

Intranet is also a network of computers designed for a specific group of users. ... Therefore the Internet is an open, public space, while an intranet is designed to be a private space. An intranet may be accessible from the Internet, but it is protected by a password and accessible only to authorized users.

72. What is meant by Web design?

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.

73. What is the use of Web design?

The ultimate goal of web design is to create pages that grab the attention of website visitors to convert them into paying customers or provide specific information about a product, company, or organization. Websites can entertain, may contain “how to's” or instructions, guidance, and support.

74. What are the benefits of web design?

- Advantages of Responsive Web Design
- Improved User Experience. A responsive website leads to a better user experience. ...
- An Increase in Mobile Traffic. ...
- Faster Website Development. ...
- Easier Maintenance. ...

- No Duplicate Content Penalty. .

## UNIT-5

75. What is a web designer do?

A web designer is responsible for creating attractive and fully functional websites, but they do more than just that. If you are a creative individual and you are technically inclined, it is time to learn about roles of web designers and why they play such an important role in today's modern world of business.

76. Is computer science part of engineering?

“Computer Science” is an umbrella term which encompasses four major areas of computing: theory, algorithms, programming languages, and architecture. ... “Computer Engineering” typically focuses specifically on computer hardware and software. It is an integration of computer science and electrical engineering.

77. Which computer is used in hospital?

Today, computers are used everywhere from patient bedsides, medical carts, nurse stations, labs, and operating rooms. In this guide, we explain some of the most frequent programs in which health care personnel would utilize computers.

78. What is the use of computer in banking?

Banks use a wide range of computers to carry out regular, day-to-day operations. Computers allow banking personnel to efficiently carry out transactions, process customer needs, forecast future trends, prepare internal and external reports, communicate with key participants and generate profits.

79. Which software is used in banking?

Finacle is a core banking product developed by Indian corporation Infosys that provides universal banking functionality to banks. In August 2015, Finacle became part of EdgeVerve Systems Limited. Finacle is used by banks across 84 countries that serve over 450 million customers

80. What does medical engineering deal with?

Biomedical engineers typically do the following: Design biomedical equipment and devices, such as artificial internal organs, replacements for body parts, and machines for diagnosing medical problems. Install, adjust, maintain, repair, or provide technical support for biomedical equipment.



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**CLASS:II-B.A(ENG)**

**UNIT-1**

- 1.What is a computer?
- 2.Write a short note on importance of computers.
- 3.Charateristics of computers.
- 4.Define microcomputer.
- 5.Define minicomputer.
- 6.How many types of generations in computer?
- 7.Define supercomputer.
- 8.Define network computers.
- 9.What are the typical uses of the mainframes?
- 10.What are the Portable computers.
11. Use of Workstations.
- 12.How are computer systems classified?
13. How many types of micro computers are there?
14. What is an example of a microcomputer?
15. What is a micro computer used for?
16. What is minicomputer with example?
17. Where is minicomputer used?
18. How does a microcomputer work?
19. What is a mainframe?
20. Why is mainframe used?

**UNIT-2**

21. What is the CPU of a computer?
22. What is a hardware in it?
23. What are the types of hardware?
- 24.What is the functions of CPU?
25. What is peripheral devices with examples?
26. What does Microcode mean?
27. What does an ALU do?
28. What is RAM in a computer?
- 29.What is difference between DRAM and SRAM?
30. What is a ROM in a computer?
31. What is auxiliary storage used for?
32. Which is an example of sequential access device?
33. What are the 10 storage devices?
34. What are the input and output devices?
35. What are 5 input devices?
36. What is output device with example?
40. What are computer optical devices?
41. How do optical devices work?
42. Is a hard disk an optical storage device?
43. What are some examples of optical devices?
44. What are 4 input devices?
45. What are 5 output devices?
46. What is output devices of computer?

47. What are the four types of output?
48. What is a monitor of a computer?
49. What are the 5 types of monitor?
50. What is printer and type of printer?
51. what are the 2 types of printers?
52. What is computer software and examples?
53. What is a software in a computer?
54. What are the types of software?

### **UNIT-3**

55. What are the 4 types of programming language?
56. What are examples of programming language?
58. What is the operating system of a computer?
59. What are the 5 operating system?
60. What is OS and its functions?
61. What are the classifications of operating system?
62. How do operating systems work?
63. What is DBMS with example?
64. What DBMS means?
65. What is use of DBMS?

### **UNIT-4**

66. How do I create a new email account?
67. How do I access my Gmail account?
68. What is an email ID?
69. What is www and Internet?
70. What is the use of WWW in Internet?
71. What is the difference between Internet and intranet?
72. What is meant by Web design?
73. What is the use of Web design?
74. What are the benefits of web design?

### **UNIT-5**

75. What is a web designer do?
76. Is computer science part of engineering?
77. Which computer is used in hospital?
78. What is the use of computer in banking?
79. Which software is used in banking?
80. What does medical engineering deal with?

### **Unit1**

**5 marks**

1. Write a short note on importance of computers.
2. Explain Generation of computers.

**10 marks**

1.Explain Classification of digital computers.

### **Unit2**

**5 marks**

1. Write a short note on CPU and Memory.
2. Explain Secondary storage devices.

**10 marks**

1. Explain Input devices and output devices.

### **Unit3**

**5 marks**

1. Write a short note on Computer software.
2. Explain Programming languages.

**10 marks**

1. Explain operating systems.
2. Explain Database and DBMS.

### **Unit4**

**5 marks**

1. Write a short note on Computer networks .
2. Explain www and Internet.

**10 marks**

1. Explain Email and web design.

### **Unit5**

**5 marks**

1. How to use computers at home ?explain.
2. How to use computers at education ?explain.

**10 marks**

1. What are the uses of computers in science ,medicine and engineering?Explain.

