MEGAREVISION SERIES DAY 09 FOR BBA BBM BMS BCA COMPUTER MAH CET BBA BCA **& CUET UG GT 2025**

















TELEGRAM

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FOR MAH CET FOR BBA BBM BMS BCA & CUET UG PAPER 3 GENERAL TEST





Types of Software

- System software are designed to control the operation and extend the processing capability of a computer system
- Application software are designed to solve a specific problem or to do a specific task



Logical System Architecture



BIOS (firmware) & general R specific term for computer firmwore.

- BIOS (Basic Input/Output System) is a type of firmware used in computers and other devices.
- It is a critical component of system software that initializes and tests hardware during the startup process and provides runtime services for operating systems.
- BIOS is a small program stored on a chip (typically ROM or EEPROM) on the motherboard.
- It is the first software that runs when a computer is powered on.
- BIOS acts as an intermediary between the hardware and the operating system.
- BIOS is specific to personal computers and compatible systems.



Firmware

- Firmware refers to a sequence of instructions (software) substituted for hardware
- This software is stored in a read-only memory (ROM) chip of the computer.
- Firmware can be found in various devices, such as computers, smartphones, routers, printers, and IoT devices.



System Utilities

- Utility software is a type of system software designed to help analyze, configure, optimize, or maintain a computer.
- Performs specific tasks to enhance the performance or functionality of the system.
- Examples: Antivirus software, disk cleanup tools, backup software, file compression tools (e.g., WinRAR), and system monitoring tools.
- Focuses on maintenance and optimization rather than general-purpose tasks.



Open Source Software (OSS)

- Software whose source code is made available to the public under a license that allows users to view, modify, and distribute the code.
- The license may impose certain conditions, such as requiring attribution or sharing derivative works under the same license
- Example: Linux, Firefox, etc.



Public-domain software

- Software that is not protected by copyright, meaning it has no owner and is freely available for anyone to use, modify, and distribute without any restrictions.
- No license is required, and there are no conditions for use.
- Example: SQLite



VISIOEMY ACADEMY *OR BBA/BOM/BMB/D	Aspect	System Software	Application Software	
	Purpose	Manages hardware and system resources.	Performs specific tasks for the user.	
	User Interaction	Minimal or no direct user interaction.	Directly used by the user.	
	Examples	Operating systems, device drivers, firmware.	Microsoft Word, Photoshop, Google Chrome.	
	Dependency	Required for the system to function.	Optional, installed as needed.	



Types of Computers

Aspect	Supercomputers	Mainframes	Minicomputers	Microcomputers
Purpose	Complex, large-scale computations	High-volume data processing	Specialized tasks	General-purpose computing
Size	Very large (room- sized)	Large	Medium	Small and portable
Туре	Multi-user	Multi-user	Multi-user	Single-user
Performance	Fastest (trillions of FLOPS)	High reliability and scalability	Moderate	Moderate to high
Cost	Millions of dollars	Hundreds of thousands to millions	Less than mainframes	Affordable (hundreds to thousands)
Use Cases	Scientific research, AI, cryptography	Banking, airline reservations	Industrial control, research	Everyday computing, gaming



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Operating System





Operating System Services

- Program Execution
 - OS provides an environment where users can conveniently run programs without worrying about memory allocation or anything.
- I/O Operations
 - OS makes it convenient for the users to interact with I/O devices and run programs requiring their use.
- Task Scheduling
 - To allow multitasking and multiprocessing, task schedulers are used to increase the throughput number.





Operating System Services

- File System Manipulation
 - Process of reading or writing of data to external storage is easily managed.
- Communication
 - Communication between same computer components or multi-computer system is managed by OS for execution of tasks.
- Error Detection
 - OS constantly checks for any errors in the complete system to avoid malfunctioning of the system.



Kernel

- It is the core component of the OS which acts as the interface between application and data processed at hardware level.
- It manages the CPU, Memory (RAM) and other hardware resources.



DS.



Popularly known OS

- UNIX
- MS-DOS
- Microsoft Windows
- Microsoft Windows Server

(Earlier Known as Windows NT) (NT=New Technology)

- Linux
- Mac OS
- Android
- iOS

nobile phones



First Operating System

- The first operating system, developed in (1956) was GM-NAA I/O, created by General Motors Research Laboratories for its IBM 704 computer.
- It was a batch processing system that automated job handling.



UNIX (First OS for PC)

- Developed in the early 1970s at <u>Bell Laboratories by</u>
 Ken Thompson and Dennis Ritchie
- Written in C high-level language, hence, highly portable
- Multi-user, time-sharing OS
- Used on a wide variety of computers ranging from notebook computers to super computers



MS-DOS

• Microsoft developed MS-DOS in (1981)

- Stands for Microsoft Disk Operating System.
- Single-user OS for IBM and IBM-compatible personal computers (PC)

International Business Machine



Microsoft Windows

- Developed by Microsoft to overcome limitations of MS-DOS operating system
- Single-user, multitasking OS
- Native interface is a GUI ⇒ Graphical User Interface.
- Designed to be not just an OS but also a complete operating environment
- OS of choice for most PCs after 1990
- Latest version of MS Windows is Windows 11 released in October 2021

Microsoft Windows Server (Earlier Known as Windows NT)

• Multi-user, time-sharing OS developed by Microsoft

- Designed to have UNIX-like features so that it can be used for powerful workstations, network, and database servers
- Supports multiprogramming and is designed to take advantage of multiprocessing on systems having multiple processors
- Native interface is <u>a GUI</u>
- Built-in networking and communications features
- Provides strict system security
- Rich set of tools for software development
- Can run Microsoft Windows applications and many UNIX applications directly



frog ramming

- Open-source OS enhanced and backed by thousands of programmers world-wide
- Multi-tasking, multiprocessing OS, originally designed to be used in PCs
- Name <u>"Linux</u>" is derived from its inventor Linus Torvalds

Hacking



Mac OS

GMNAAIO [Closed] VNIX-1970's [Open-foral]

- Designed in mid 1980s by Apple Incorporation
- Main objective was 'ease of use'
- First OS to introduce the idea of GUI Graphical User Interface), which was later adopted by almost all Operating Systems
 - Latest macOS version is macOS 15 Sequoia, released on September 16, 2024.





Each component of computer is either (a) hardware or software (b) software or CPU/ RAM (c) application software (d) input devices or output devices



The main purpose of software is to convert data into ... (a) web site (b) information (c) program (d) object

HDD Secondary RAM What is virtual memory ? Memory of hard disk which is used by CPU as extended RAM (b) Located in RAM (c) It needs when there is no any RAM in computer (d) Backup device for floppy discs



Thetells the computer how to use its components. (a) utility (b) application (d) network



The transfer of <u>data</u> from a <u>CPU</u> to <u>peripheral devices</u> of computer is achieved through ______ (a) Modems ______ (b) Computer ports ______ (b) Computer ports ______ (c) Interfaces _______ USB post (d) Buffer memory _____



(15B => Universal Serial Bus

Repair for known <u>software bug</u>, which is generally available free of cost on internet is called ______ (a) Version (b) FAQ (b) FAQ (c) Patch \rightarrow fatch (d) Tutorials



What is backup?
(a) Connect his network to more component
(b) Copy to save a data from original source to other destination
(c) Filter an old data from new data
(d) Access data from tape



The WM manual tells you how to use a software program. (a) Documentation (b) Programming (c) User (d) Technical



The set of instructions which tells a computer what to do is called (a) compiler (b) instructor (c) program (d) debugger



Linux is an example of ... (a) Freeware (b) Shareware (c) Open-Sources Software (d) Complimentary



The physical structure of a computer is called a .. (a) software (b) keyboard (c) hardware (d) none of these



DOS stands for ... (a) Disc operating system (b) Disc of system (c) Device operating system (d) Door operating system



To work on a computer mainly we need (a) hardware 2 (b) software 2 (c) scanner (d) a and b both





When was Unix developed? (a) 1960 (b) 1950 (c) 1955 (d) 1969



Basic language of Unix is (a) Cobol (b) Basic (c) Assembly (d) Java VISION What is Linux ? (a) An operating system (b) A software (c) A site (d) A graphics



Which software do you use for work?



Who developed Unix ? (a) Rod Fenson (b) Ken Thompson (c) Ramavart Cathrin (d) Jahnson



Which of the following works as an agent between hardware and user? (a) Compiler (b) Operating system (c) Translator (d) All of these C, (Ft, Jana. Computer bu level Machine Languege High/evel Assembly=) Any program translated into machine language is called. (a<u>) analoq</u> program (b) object code (c) personal program (d) official program



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