



EDU430

Mid-Term (Solved)

ABSTRACT

This comprehensive collection of notes is accurately crafted to empower students to excel academically, ensuring they achieve a minimum of 80% marks in their examinations. The content is organized with clarity and precision, focusing on key concepts, critical analyses, and practical applications tailored to the syllabus. These notes serve as a reliable resource for both thorough preparation and last-minute revision. Designed to inspire confidence and mastery, this guide is an essential tool for students striving for academic excellence.

Maha Malik

Information Technology in Education

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Q. Define the following:

1. **Cache Memory:** Small, fast memory located close to the CPU, storing frequently used data to speed up processing.
2. **Byte:** A unit of digital data, typically consisting of **8 bits**.
3. **File:** A collection of data or information stored on a computer, often organized under a filename.
4. **Data:** Raw facts and figures that are processed to produce information.
5. **Software:** Set of instructions or programs used to operate computers and execute specific tasks.
6. **WWW (World Wide Web):** A system of interlinked hypertext documents accessed via the Internet, invented by **Tim Berners-Lee**.
7. **Web 2.0:** The second generation of the web focusing on user-generated content, usability, and interoperability.
8. **E-Government:** The use of information and communication technologies to provide government services electronically.
9. **Database:** An organized collection of structured information, stored electronically.
10. **Virtual Learning:** Learning that occurs through digital platforms without being physically present in a classroom.
11. **Distant Learning:** Education where teachers and students are separated by physical distance, connected through technology.
12. **E-Learning:** A learning system based on formalized teaching but with the help of electronic resources.
13. **Browser:** A software application used to access and view websites, e.g., Chrome, Firefox.
14. **Bluetooth:** A wireless technology standard for exchanging data over short distances.
15. **Sound Card:** A hardware component that enables a computer to produce and process sounds.
16. **Download Accelerator:** Software that increases the speed at which files are downloaded from the internet.
17. **Default:** A preset option adopted by a computer program when no alternative is specified.
18. **Alias:** An alternative name for an item, often used to simplify access (like shortcut names).
19. **Chart:** A graphical representation of data, often used in classrooms to simplify complex information.
20. **Teaching Aids:** Tools used by teachers to make learning more effective and interesting.
21. **Teaching Machine:** A mechanical or electronic device used for programmed learning.
22. **Compatibility:** The ability of a system or product to work with other systems or products without conflict.
23. **Binary:** A base-2 numeral system using only 0 and 1.
24. **ANSI (American National Standards Institute):** A body that oversees the development of voluntary standards for products, services, processes, and systems.
25. **Avatar:** A digital representation of a user in a virtual environment.
26. **Bookmark:** A saved link to a particular website or webpage in a browser.
27. **Crash (Crush):** An event where a computer program or system stops functioning properly.
28. **Narrator:** In tech, it refers to a screen reader that reads text on the screen aloud (especially for visually impaired users).
29. **Google:** A popular search engine used to find information online.

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30. Chat Room: A virtual space where users can communicate instantly with each other via text.

Q. ICT in Education

Using technology (computers, internet, multimedia) to enhance teaching and learning.

Q. Benefits of ICT

- ✚ Quick access to information,
- ✚ easy communication,
- ✚ updated knowledge,
- ✚ supports individual learning.

Q. Advantages of ICT in Education

- ✚ Quick access to information
- ✚ Geographical connection
- ✚ Cater to individual differences
- ✚ Better communication.

Q. Limitations of ICT

- ✚ Expensive setup
- ✚ Risk of distractions
- ✚ Dependence on technology
- ✚ Lack of personal interaction.

Q. Advantages and Disadvantages of Teleworking:

- ✚ **Advantages:** Flexibility, saves travel time, reduces office costs.
- ✚ **Disadvantages:** Isolation, distractions at home, less team bonding.

Q. Benefits of E-Learning for Teachers and Institutions:

- ✚ Cost-effective,
- ✚ flexible scheduling,
- ✚ easy access to resources,
- ✚ wider audience reach.

Q. How does exposure to ICT in schools affect future employment?

It develops digital skills needed in modern jobs, making students more employable.

Q. Integration of Subjects with ICT

Using technology tools (like simulations, videos, online labs) to connect and teach multiple subjects.

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Q. Define Wide Area Network (WAN) and its Characteristics:

WAN connects computers over large areas (cities/countries) using telephone lines or satellites; has high error rate, slow speed.

Q. Difference between LAN, WLAN, and WAN:

- ✚ LAN: Local network (small area, e.g., one building)
- ✚ WLAN: Wireless LAN (no cables)
- ✚ WAN: Wide area network across large distances.

Q. Define Intranet and its Characteristics:

A private network within an organization, protected by passwords and firewalls.

Q. Internet, Intranet, and Extranet:

- ✚ Internet: Global network accessible to everyone
- ✚ Intranet: Private internal network
- ✚ Extranet: Private network that allows limited access to outsiders.

Q. Uses of Computer Networks (Write 5 uses):

- ✚ Resource sharing
- ✚ Communication
- ✚ Remote information access
- ✚ Saving money
- ✚ Person-to-person communication.

Q. What is ISP and its Use?

ISP (Internet Service Provider) gives access to the internet for users.

Q. Define Computer Networks:

A system where multiple computers are connected to share information and resources.

Q. What is Address Resolution?

The process of mapping a known IP address to a MAC address in networking.

Q. Data Server

A computer dedicated to storing, processing, and managing network data.

Q. Web Server and its Meaning

A computer program that delivers requested web pages to users (e.g., Apache, IIS).

Q. Web Blog

An online journal or informational website where individuals or groups post content regularly.

Q. Importance of Audio-Visual Aids:

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- + Makes learning interesting,
- + helps memory retention,
- + motivates learners, and
- + clarifies concepts.

Q. Problems/Disadvantages of Audio-Visual Aids:

- + Technical issues,
- + cost of equipment,
- + distractions,
- + lack of technical skills.

Q. Problems or Disadvantages of Projected Aids:

- + Require electricity,
- + equipment may malfunction,
- + setup time needed.

Q. Projected Aids and Non-Projected Aids:

- + **Projected:** Tools needing a device to project (e.g., multimedia projector)
- + **Non-Projected:** Direct-use tools (e.g., charts, models).

Q. Audio Aids Types:

- + Radio
- + Tape recorder
- + Microphone
- + Language labs.

Q. Three Dimensional (3D) Aids in Classroom:

- + Models,
- + mockups, and
- + dioramas

used to make learning more realistic.

Q. Characteristics of Good Teaching Aids:

- + Simple,
- + accurate,
- + motivating,
- + durable,
- + inexpensive,
- + appropriate for learners' level.

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Q. Characteristics of Teaching Aids in Classroom Setting:

- ✚ Meaningful,
- ✚ large enough to be visible,
- ✚ safe to use,
- ✚ relevant to lesson.

Q. Teaching Aids Advantages:

- ✚ Make learning concrete,
- ✚ develop deeper understanding,
- ✚ motivate students,
- ✚ save time.

Q. Usage of Audio Aids in Classroom:

- ✚ reinforce spoken instructions,
- ✚ improve listening skills, and
- ✚ make learning interesting.

Q. Principle of Computer and Principles of Teaching Aids:

- ✚ **Principle of Computer:** Data input → processing → storage → output.
- ✚ **Principles of Teaching Aids:** Select suitable aids, use simple and accurate materials, maintain and properly display them.

Q. What is HTML? Give its History and Points to Remember While Coding:

HTML is a standard markup language used to develop web pages.

History: Evolved from SGML in 1980.

Points: Tags are in < >, opened tags must be closed, not case sensitive, use .html extension.

Q. Merits and Demerits of HTML:

- ✚ **Merits:** Easy to learn, widely used, platform independent.
- ✚ **Demerits:** Static pages, limited interactivity without extra scripting.

Q. Difference Between Website and Webpage:

- ✚ **Website:** A collection of related web pages.
- ✚ **Webpage:** A single document on the web.

Q. Define Hyperlink:

A link that connects one web page to another or to sections within a page.

Q. Difference Between CMS and LMS:

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- ✚ CMS (Content Management System): Manages website content.
- ✚ LMS (Learning Management System): Manages educational courses and training.

Q. Five Uses of LMS:

- ✚ Delivering online courses
- ✚ Tracking learner progress
- ✚ Managing course content
- ✚ Providing online assessments
- ✚ Facilitating communication between teachers and students.

Q. What is Hypertext?:

Text displayed on a screen with links to other texts, enabling easy navigation.

Q. Central Processing Unit (CPU):

The brain of the computer that performs all processing and controls other components.

Q. Storage Devices and Touch Screen:

- ✚ **Storage Devices:** Save data permanently (HDD, SSD, USB).
- ✚ **Touch Screen:** A display that responds to touch for input.

Q. Hard Disk Drive (Internal and External Hard Drive Differences):

- ✚ **Internal HDD:** Installed inside the computer.
- ✚ **External HDD:** Portable, connects through USB.

Q. Desktop Computer vs Laptop or Tablet PC:

- ✚ **Desktop:** Powerful, fixed, cheaper.
- ✚ **Laptop/Tablet:** Portable, battery-powered, compact.

Q. Define Structure of Monitor:

Screen encased in a frame, connected internally to electronic circuits that display visuals.

Q. Define Scanner:

A device that converts physical documents into digital format.

Q. Floppy Disk Drive:

Old storage device using floppy disks with 1.44 MB capacity.

Q. DVD:

Digital Versatile Disc, stores large amounts of data, videos, and software.

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Q. CD-ROM vs DVD Drive:

- ✚ **CD-ROM:** Stores up to 700 MB.
- ✚ **DVD:** Stores up to 4.7 GB or more.

Q. Difference between Smart Phone and Mobile Phone:

- ✚ **Smartphone:** Functions like a mini-computer with apps, internet.
- ✚ **Mobile Phone:** Basic communication (calls, SMS).

Q. Difference between VGA and Graphic Card:

- ✚ **VGA:** A display standard (Video Graphics Array).
- ✚ **Graphic Card:** Hardware that renders images and videos.

Q. Memory Card vs USB Drive:

Both store data, but memory cards are mainly for mobile devices; USB drives for general portable storage.

Q. Modem and Connectors:

- ✚ **Modem:** Converts digital to analog signals for internet.
- ✚ **Connectors:** Physical devices that join cables and systems.

Q. Difference Between Dot Matrix and Laser Printer:

- ✚ **Dot Matrix:** Impact printer, low quality.
- ✚ **Laser Printer:** Non-impact, high-quality fast printing.

Q. Difference Between Inkjet Printer and Thermal Printer:

- ✚ **Inkjet:** Sprays ink to print.
- ✚ **Thermal:** Uses heat to print on special paper.

Q. Touch Pad and Light Pen:

- ✚ **Touch Pad:** Flat surface to move cursor by finger movement.
- ✚ **Light Pen:** Pointing device detecting light from screen.

Q. Adware and its Explanation:

Software that displays unwanted ads; sometimes installed without user permission.

Q. A/D Converter:

Analog-to-Digital Converter; changes analog signals into digital data.

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Q. Define Firewall:

A security system that controls incoming and outgoing network traffic.

Q. What is Teaching, Training, and Instructor?

- ✚ **Teaching:** Guiding and educating students.
- ✚ **Training:** Skill development through practice.
- ✚ **Instructor:** A person who delivers education or training.

Q. What is Teaching and Function of Teaching?

- ✚ **Teaching:** Influencing students' learning
- ✚ **Functions:** Preserve culture, transmit knowledge, foster development.

Q. Advantages of Teaching Aids in the Classroom:

- ✚ Make learning interesting
- ✚ Increase attention and understanding
- ✚ Reduce verbalism
- ✚ Save time and energy.

Q. Computer Assisted Instruction (CAI):

An interactive learning method where computers deliver instructional material using text, graphics, sound.

Q. Computer Aided Assessment:

Using computers to create, deliver, and score tests or assessments automatically.

Q. Technology Integration:

Using technology tools (like computers, apps, multimedia) into everyday teaching and learning.

Q. Different Types of Teaching Maps and Their Functions:

- ✚ **Physical maps:** Show landscapes
- ✚ **Political maps:** Show countries, cities
- ✚ **Climate maps:** Show weather patterns
- ✚ **Resource maps:** Show natural resources.

Q. How Maps Can be Used in Classrooms?

For teaching geography, history, understanding locations, environmental studies, and building spatial skills.

Q. Field Trip and Its Types:

Educational visits outside school.

Types: Local trip (museums), Distant trip (historical cities), Virtual field trips (online tours).

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Q. Different Types of Boards and Their Uses in Classroom:

- ✚ **Chalkboard:** Traditional writing
- ✚ **Whiteboard:** Marker-based, cleaner
- ✚ **Interactive board:** Touch-responsive digital boards.

Q. Types of Boards in Classroom:

Chalkboards, whiteboards, smartboards, magnetic boards.

Q. Videoconferencing Explained:

Two-way video and audio communication between people at different locations via the internet.

Q. Computer Conference Explained:

Online meeting or discussion held using computers, text, audio, or video communication.

Q. Explain Term Interface:

The way a user interacts with a computer or program (e.g., mouse pointer, menu bar).

Q. Structure of a Monitor:

Consists of a screen, casing, electronic circuits, display panel (LCD/LED), and connectors.

Q. What is Operating System?

Software that manages computer hardware and software resources (e.g., Windows, Linux).

Q. Computer Programs:

A set of instructions that tell the computer what tasks to perform.

Q. Computer Networking:

Connecting multiple computers to share resources like files, printers, and internet access.

Q. Usage of Video Disc, Video Player, and Video Memory:

- ✚ **Video Disc:** Stores movies/data
- ✚ **Video Player:** Plays video discs
- ✚ **Video Memory:** RAM dedicated to storing video images.

Q. Difference Between Upload and Download:

- ✚ **Upload:** Sending files from your device to the internet.
- ✚ **Download:** Receiving files from the internet to your device.

Q. Describe JPEG or JPG:

A common compressed image file format, used for photos with small file size.

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Q. Define Search Engine (Names of Five Search Engines):

A tool to search information online.

Examples: Google, Yahoo, Bing, AOL, AltaVista.

Q. Describe Digital:

Anything represented in numerical form (0s and 1s); used by computers.

Q. Difference Between Desktop and Laptop:

- ✚ **Desktop:** Bigger, more powerful, fixed.
- ✚ **Laptop:** Portable, lightweight, built-in battery.

Q. Undo Shortcut Key:

Ctrl + Z (for most software).

Q. Define Teaching Machine:

A device invented for self-paced learning where students receive immediate feedback.

Q. Meaning of Font:

A design/style of text characters (e.g., Arial, Times New Roman).

Q. Differentiate Between Social Network and Forum:

- ✚ **Social Network:** Connects people (Facebook, Instagram).
- ✚ **Forum:** Online discussion boards for topics (Reddit, Quora).

Q. Difference Between Processing Software and Spreadsheet Software:

- ✚ **Processing Software:** For writing (Word processors like MS Word).
- ✚ **Spreadsheet Software:** For calculations/tables (like MS Excel).

Q. Describe Different Types of Maps Used in the Classroom:

Physical, political, thematic (climate, population), topographical maps for different subjects.

Q. Explain the Importance of Audio-Visual Aids Briefly:

They make learning interesting, improve understanding, save time, and motivate students.

B.Ed. (1.5 Years)

BS English

Files