

## Computer Science(Theory) (Common for Science, Humanities, Commerce and Agricultural Group) Question Paper with Solutions

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1. The break statement can be used to terminate a case in \_\_\_\_\_ statement.

Correct Answer: switch

Solution: Step 1: In programming, the switch statement is used to execute one case among many based on a given value.

Step 2: Each case in a switch statement ends with a break statement.

Step 3: The break statement stops execution and prevents the control from moving to the next case.

### Quick Tip

Remember: - break is mainly used - to terminate a case in a switch statement.

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2. \_\_\_\_\_ gives an Unique Identity to Indian citizens.

Correct Answer: Aadhaar

Solution: Step 1: The Government of India provides a unique identification number to every citizen known as Aadhaar.

Step 2: Aadhaar consists of a 12-digit unique number issued by UIDAI.

Step 3: It serves as a valid proof of identity and address across India.

### Quick Tip

Remember: - Aadhaar = Unique Identity - Valid all over India.

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3. To move the layers \_\_\_\_\_ tool is used.

Correct Answer: Move

Solution: Step 1: In image editing software, layers are used to manage different elements separately.

Step 2: The Move Tool is specifically designed to reposition layers or objects on the canvas.

Step 3: Therefore, to move the layers, the Move tool is used.

#### Quick Tip

Remember: - Move Tool helps - to reposition layers or objects easily.

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4. \_\_\_\_\_ shortcut key is used for cropping the image.

Correct Answer: C

Solution: Step 1: Image editing software provides a Crop Tool to trim unwanted areas of an image.

Step 2: The Crop Tool can be quickly activated using a keyboard shortcut.

Step 3: The shortcut key for the Crop Tool is C.

#### Quick Tip

Remember: - Crop Tool shortcut - is always C.

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5. Filter option is available in \_\_\_\_\_ tab of Excel.

Correct Answer: Data

Solution: Step 1: MS Excel provides filtering options to sort and analyze data efficiently.

Step 2: The Filter option is grouped with data management tools.

Step 3: Therefore, the Filter option is available in the Data tab of Excel.

### Quick Tip

Remember: - Sort and Filter tools - are found in the Data tab.

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6. \_\_\_\_\_ is a multiway conditional control statement.

Correct Answer: switch

Solution: Step 1: Conditional control statements are used to make decisions in a program.

Step 2: When multiple conditions are checked using a single variable, a multiway decision is required.

Step 3: The switch statement allows checking multiple cases and is therefore a multiway conditional control statement.

### Quick Tip

Remember: - if-else = two-way decision - switch = multiway decision

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7. Full form:

- (i) GAI
- (ii) B2C
- (iii) MP4
- (iv) AVI
- (v) MAC
- (vi) VR

Correct Answer:

- (i) GAI — Generative Artificial Intelligence
- (ii) B2C — Business to Consumer

(iii) MP4 — Moving Picture Experts Group 4

(iv) AVI — Audio Video Interleave

(v) MAC — Media Access Control

(vi) VR — Virtual Reality

Solution: Step 1: Abbreviations are used to shorten long technical terms in computers and information technology.

Step 2: Knowing the full forms helps in understanding concepts clearly.

Step 3: The correct full forms of all given abbreviations are listed above.

#### Quick Tip

Remember: - Full forms are frequently - asked in examinations.

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8. What is the difference between human system and expert system?

Correct Answer: A human system depends on human intelligence and experience, whereas an expert system uses computer-based knowledge and rules to make decisions.

Solution: Step 1: Human System A human system works on natural intelligence, emotions, creativity, and personal experience. Decision-making may vary from person to person.

Step 2: Expert System An expert system is a computer-based system that imitates the decision-making ability of a human expert using stored knowledge and rules.

Step 3: Differences:

- Human system involves emotions and intuition; expert system does not.
- Human system can learn naturally; expert system works only with programmed knowledge.
- Expert system provides consistent results; human decisions may vary.

### Quick Tip

Remember: - Human System = Natural Intelligence - Expert System = Artificial Intelligence + Rules

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9. What is Debit card?

Correct Answer: A debit card is a bank-issued card that allows the user to make payments or withdraw money directly from their bank account.

Solution: Step 1: A debit card is linked to the customer's bank account.

Step 2: The amount spent using a debit card is immediately deducted from the account balance.

Step 3: It can be used for ATM withdrawals, online transactions, and in-store payments.

### Quick Tip

Remember: - Debit Card = Direct access to bank account - No credit facility is provided.

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10. In brief describe Smart Governance.

Correct Answer: Smart Governance uses information technology to improve government services and administration.

Solution: Step 1: Smart Governance involves the use of digital technologies in government processes.

Step 2: It improves transparency, efficiency, and citizen participation.

Step 3: Online services, e-governance portals, and digital payments are examples of smart governance.

### Quick Tip

Remember: - Smart Governance = Technology + Transparency - Improves public services.

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11. Explain Custom filter.

Correct Answer: A custom filter allows users to filter data based on user-defined conditions.

Solution: Step 1: Custom filter is used in applications like MS Excel to analyze data efficiently.

Step 2: Users can apply conditions such as equals, greater than, or less than.

Step 3: It helps in extracting specific information from large datasets.

### Quick Tip

Remember: - Custom Filter = User-defined conditions - Helps in data analysis.

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12. Define branching. Name its different control statements.

Correct Answer: Branching is the process of selecting different execution paths based on conditions in a program.

Solution: Step 1: Branching allows decision-making in programs using conditions.

Step 2: It helps control the flow of execution.

Step 3: Control statements used in branching are:

- if
- if-else
- else-if ladder
- switch

### Quick Tip

Remember: - Branching = Decision making - if and switch are commonly used.

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13. Define Router and its functions.

Correct Answer: A router is a network device that forwards data packets between different networks.

Solution: Step 1: A router connects multiple networks and directs data traffic efficiently.

Step 2: It selects the best path for data transmission.

Step 3: Functions of a Router:

- Forwarding data packets
- Connecting different networks
- Managing network traffic

### Quick Tip

Remember: - Router = Network traffic controller - Essential for internet connectivity.

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14. Define GPS technology.

Correct Answer: GPS technology is a satellite-based navigation system used to determine the exact location of an object on the Earth.

Solution: Step 1: GPS stands for Global Positioning System.

Step 2: It works with the help of satellites orbiting the Earth.

Step 3: GPS provides accurate information about location, direction, and time anywhere on the Earth.

### Quick Tip

Remember: - GPS = Satellite-based system - Used for navigation and tracking.

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15. What are the Pros and Cons of Artificial Intelligence?

Correct Answer: Artificial Intelligence has several advantages such as speed and accuracy, but it also has disadvantages like high cost and job displacement.

Solution: Step 1: Pros of Artificial Intelligence

- High speed and accuracy in work
- Reduces human errors
- Can work 24×7 without fatigue
- Helps in data analysis and decision making

Step 2: Cons of Artificial Intelligence

- High development and maintenance cost
- Lack of human emotions and creativity
- May cause unemployment
- Dependence on machines

### Quick Tip

Remember: - AI increases efficiency - but human supervision is essential.

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16. Write down the advantages and disadvantages of E-Commerce.

Correct Answer: E-Commerce provides easy and fast shopping, but it also has security and delivery issues.

Solution: Step 1: Advantages of E-Commerce

- 24×7 shopping facility
- Saves time and money
- Wide range of products
- Easy price comparison

#### Step 2: Disadvantages of E-Commerce

- Risk of online fraud
- No physical inspection of products
- Delivery delays
- Dependence on internet

#### Quick Tip

Remember: - Always shop from - secure and trusted websites.

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17. What is Aadhar Card? Describe its characteristics.

Correct Answer: Aadhar Card is a unique identity card issued by the Government of India.

Solution: Step 1: Aadhar Card contains a 12-digit unique identification number issued by UIDAI.

Step 2: It is linked with biometric and demographic data of the citizen.

Step 3: Characteristics of Aadhar Card

- Unique identification number
- Biometric authentication
- Valid all over India
- Useful for government services

### Quick Tip

Remember: - Aadhaar = Unique Identity - issued by UIDAI.

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18. What are network devices? Describe any three network devices.

Correct Answer: Network devices are hardware components used to connect computers and manage data communication.

Solution: Step 1: Network devices help in transmitting data between computers and networks.

Step 2: Three network devices are:

- Router: Connects different networks and forwards data packets
- Switch: Connects devices within the same network
- Modem: Converts digital signals to analog and vice versa

### Quick Tip

Remember: - Router, Switch, Modem - are basic network devices.

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19. Describe Android technology with its advantages.

Correct Answer: Android is an open-source mobile operating system developed by Google.

Solution: Step 1: Android is used in smartphones, tablets, and other smart devices.

Step 2: It supports a wide range of applications from the Google Play Store.

Step 3: Advantages of Android Technology

- Open-source platform
- Easy customization
- Large app ecosystem

- User-friendly interface

#### Quick Tip

Remember: - Android = Open source + Flexible - widely used mobile OS.

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