CERTIFIED INFORMATION SYSTEMS SOLUTIONS EXPERT (CISSE)

FOUNDATION LEVEL

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

MONDAY: 1 December 2025. Afternoon Paper.   **Time Allowed: 2 hours.**

This paper consists of fifty (50) Multiple Choice Questions. Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. Each question is allocated two (2) marks.

1.   Which one of the following statements **BEST** describes legacy integration?

   A.   Using outdated systems without modification
   B.   Linking recent applications with older but essential systems
   C.   Converting all legacy systems into mobile applications
   D.   Discarding old systems and adopting cloud only   (2 marks)

2.   An information system is _____.
   A.   a collection of hardware only
   B.   an organised collection of data stored electronically, enabling efficient access, management and manipulation of information
   C.   a combination of people, processes and technology that manages information
   D.   the use of computer systems to manage, process, protect and exchange information   (2 marks)

3.   Which one of the following hardware issues is likely to be solved by cleaning dust from inside the system unit?
   A.   Overheating and unexpected shutdowns
   B.   Slow internet connection
   C.   Hardware and software constant crashes
   D.   Printer paper jams   (2 marks)

4.   The main purpose of application integration in an organisation is to _____.
   A.   eliminate the use of databases
   B.   replace all existing applications
   C.   build new hardware for organisation
   D.   ensure smooth data flow across different systems   (2 marks)

5.   Which one of the following organisation's control that identifies ransomware as a major threat is suited to reduce the impact of such a threat?
   A.   Firewalls blocking inbound connections
   B.   Routine data backups stored offline
   C.   Complex password policies
   D.   Antivirus software updates   (2 marks)

6.   Convert 11101011_2 to its decimal equivalent as used in computer digital logic.
   A. 107_{10}
   B. 203_{10}
   C. 491_{10}
   D. 235_{10} (2 marks)

7. Which one of the following statements is the first step in a data restoration process?
   A. Formatting the entire computer system
   B. Deleting existing databases before recovery
   C. Verifying the integrity of the backup files
   D. Disconnecting the system from the power supply (2 marks)

8. Which is the first troubleshooting step when a user complains that the computer is not detecting the hard drive?
   A. Replace the computer power supply and restart it
   B. Check BIOS/UEFI settings and cable connections
   C. Reinstall both the operating system and application software
   D. Install new antivirus software (2 marks)

9. The process of fitting the internal components of a computer to make it functional is known as _____ .
   A. hardware installation
   B. computer repair
   C. component assembling
   D. computer maintenance (2 marks)

10. An insurance company sets up redundant servers to ensure business continuity. Which IS security objective is being addressed?
    A. Confidentiality
    B. Integrity
    C. Non-repudiation
    D. Availability (2 marks)

11. Which corrective action should be taken during a post-disaster review if a company finds that its recovery plan failed because employees didn't know their roles?
    A. Purchase new hardware and keep them on standby
    B. Conduct regular disaster recovery drills
    C. Shorten the RTO and RPO values
    D. Leasing the entire IT department (2 marks)

12. Which one of the following solutions would apply if a computer monitor displays a message "No Signal"?
    A. Reinstall the operating system
    B. Remove the hard disk and check for the malfunctioning parts
    C. Check and reconnect the video cable or graphics card
    D. Restart the computer (2 marks)

13. A company collects customer email addresses for order notifications. They also want to send marketing emails. Which privacy principle is relevant?
    A. Data minimisation
    B. Encryption policy during transmission
    C. Integrity
    D. Consent and purpose limitation (2 marks)

14. Who is primarily responsible for developing and enforcing organisational security policies?
    A. Security administrator
    B. Chief Information Security Officer (CISO)
    C. Certified Information System Auditor (CISA)
    D. Chief Executive Officer (CEO) (2 marks)

15. A user reports that installed applications frequently crash due to memory leaks. Which one of the following solutions is appropriate?
    A. Apply software patches
    B. Replace the CPU immediately
    C. Increase monitor refresh rate
    D. Reinstall the application software (2 marks)

16. Which is the best appropriate solution when a laptop is infected with a rootkit that modifies low-level system processes?
   A. Run a disk cleanup utility
   B. Install additional RAM
   C. Upgrade the system's graphics card
   D. Perform a clean OS reinstallation (2 marks)

17. Which one of the following symptoms indicates a failing expansion slot on the motherboard?
   A. A newly installed graphics card is not detected, even after verifying that the card works on another system
   B. Causes issues with the specific functions it controls, rather than a total system-wide shutdown
   C. The computer fails to turn on, experiences frequent restarts, system freezes and blue screens of death
   D. The operating system frequently hangs (2 marks)

18. Which one of the following correctly identifies WPA2 in wireless networks?
   A. A facility allowing computers to connect to the internet
   B. It can refer to both hardware and software
   C. A Wi-Fi security encryption protocol
   D. A printer driver update (2 marks)

19. An operating system fails to boot and shows "NTLDR is missing". Which one of the following actions resolves this issue?
   A. Reconnecting the keyboard
   B. Restoring the boot loader
   C. Increasing virtual memory
   D. Changing the display driver (2 marks)

20. Which is the **MOST** appropriate tool a security analyst can use to capture and analyse network traffic for suspicious activity during a penetration test?
   A. Burp Suite
   B. John the Ripper
   C. Nessus
   D. Wireshark (2 marks)

21. Which one of the following strategy aligns IS audits with organisational objectives to strengthen IT governance and security?
   A. Risk-based and integrated audit approach
   B. Audit randomly without scope
   C. Review anti-malware software
   D. Conduct an audit once a year and ignore findings (2 marks)

22. A system administrator notices frequent "blue screen of death (BSOD)" errors related to faulty drivers.
   Which one of the following is the correct troubleshooting step?
   A. Clean temporary files from the browser
   B. Increase hard disk partition size
   C. Update or roll back the affected drivers
   D. Change the system wallpaper (2 marks)

23. Which one of the following platforms is commonly used for online IT support and remote troubleshooting?
   A. Outlook
   B. Packet Tracer
   C. Zoom
   D. TeamViewer (2 marks)

24. Which one of the following statements explains why ticketing systems are important in online support?
   A. They help users to quickly find relevant information from the vast amount of content available online
   B. They allow users to send and receive messages, making it a quick and efficient way to communicate
   C. They track user issues and assign them to technicians systematically
   D. They handle only wireless connectivity (2 marks)

25. The portable handheld tool used for removing the protective coating of an electric wire in computer repair and maintenance is the _____.
    A.   tweezers
    B.   wire stripper
    C.   electronic cutter
    D.   crimper

                                                                                                        (2 marks)

26. Which one of the following metrics is a key performance metric in help desk management?
    A.   Average resolution time of incidents
    B.   Number of USB ports on workstations
    C.   Internet download speed
    D.   Quantity of installed software   (2 marks)

27. What is the name for the box-like case that contains a computer's electronic components shown below?

    A.   The motherboard
    B.   The system unit
    C.   The CPU
    D.   The power supply unit   (2 marks)

28. Which one of the following policies helps reduce psychosocial risks in ICT workplaces?
    A.   Trunking all loosely hanging network cables
    B.   Replacing all desktop computers with laptops
    C.   Using outdated antivirus software
    D.   Encouraging regular breaks   (2 marks)

29. Which one of the following environmental issues arises from improper disposal of electronic waste?
    A.   Soil and water contamination from toxic substances
    B.   Increase in airborne-related ailments and allergies
    C.   Increase in wrist strain injuries by users due to improper use
    D.   Discomfort and restlessness amongst staff   (2 marks)

30. When replacing a computer's power supply unit (PSU), which one of the following precautions should be observed first?
    A.   Formatting the hard disk
    B.   Installing the operating system before connecting the PSU
    C.   Disconnecting the computer from the power source

31. Which is the **BEST** solution when a computer becomes very slow when multiple applications are open?
    A.   Replace the monitor with a larger screen
    B.   Upgrade the RAM to a higher capacity
    C.   Disable the antivirus program permanently
    D.   Uninstall the applications and install them afresh   (2 marks)

32. Which one of the following is an example of a standard maintenance procedure in a computer laboratory?
    A.   Ignoring software updates to save time
    B.   Preventing users from installing personal computer games and software
    C.   Disconnecting power cables without shutting down the system
    D.   Regular cleaning of computer components to prevent dust accumulation   (2 marks)

33.   The Certified Ethical Hacker (CEH) certification is best suited for professionals who?
      A.   Create IT governance frameworks and strategic policies
      B.   Conduct vulnerability assessments and penetration tests
      C.   Manage compliance and audits
      D.   Oversee enterprise IT operations   (2 marks)

34.   Why are Service Level Agreements (SLAs) important in help desk management?
      A.   They define expected service quality and response times
      B.   They reduce the cost of hardware installation and maintenance
      C.   They provide encryption mechanisms for wireless networks
      D.   They eliminate the need for staff training   (2 marks)

35.   Which one of the following is **NOT** a feature of web services?
      A.   They allow interoperability between different systems
      B.   They use standard protocols such as HTTP and SOAP
      C.   They require systems-specific operating systems
      D.   They enable communication over the internet   (2 marks)

36.   System integration is the process of combining various component subsystems into a single, cohesive system that functions as a unified whole. What is the first step in the system integration process?
      A.   Testing the integrated system
      B.   Training end users on systems to be installed
      C.   Upgrading all hardware
      D.   Identifying business requirements   (2 marks)

37.   Which one of the following is the primary goal of a disaster recovery plan?
      A.   To ensure normal business operations resume quickly after a disruption
      B.   To eliminate the need for system backups
      C.   To prevent all types of cyberattacks
      D.   To reduce the future growth of the number of employees in an organisation   (2 marks)

38.   Why is multi-factor authentication being considered more secure than single-factor authentication?
      A.   It requires users to update their passwords more frequently and keeps a history of passwords used.
      B.   It combines two or more independent factors, making unauthorised access significantly harder.
      C.   It eliminates the need for data encryption during transmission.
      D.   It prevents insider threats completely   (2 marks)

39.   An organisation wants to integrate its sales, inventory and customer service systems. Which one of the following challenges is **MOST** likely to arise during the integration process?
      A.   Lack of compatibility between different platforms and data formats
      B.   Increased collaboration between departments to ensure all systems work
      C.   Faster access to accurate business data
      D.   Improved communication between systems   (2 marks)

40.   Which one of the following challenges is common when using web service technologies?
      A.   Platform independence
      B.   High interoperability among services
      C.   Security and performance issues
      D.   Use of standard protocols   (2 marks)

41.   Which one of the following controls is an example of an operational security control?
      A.   Hiring more marketing staff
      B.   Regular training of the staff on the importance of compliance with security policies
      C.   Strategies to identify, assess and mitigate risks associated with security threats
      D.   Restricting access to sensitive information based on user roles   (2 marks)

42.   Which one of the following statements is a **KEY** benefit of system integration?
      A.   Increased data duplication due to backup procedures
      B.   Better decision-making through unified information
      C.   Reduced collaboration across departments
      D.   Higher system isolation   (2 marks)

43. You power your computer on and receive a "Bad or missing operating system" message. What is most likely the cause of this message?
   A. Your memory is corrupt
   B. You have an incompatible slave drive configuration
   C. You have a missing or corrupt boot sector
   D. Your SCSI controller card has a priority of 15 (2 marks)

44. Which one of the following scenarios **BEST** illustrates a zero-day vulnerability?
   A. A system administrator updates antivirus software regularly
   B. A user forgets their login credentials and resets their password every time
   C. A network administrator configures firewall rules incorrectly
   D. A security hole in a computer system unknown to its developers (2 marks)

45. Which one of the following statements is an example of a data protection measure?
   A. Encrypting sensitive files before transmission
   B. Sharing passwords among team members
   C. Disabling system backups and recovery to save space
   D. Allowing unrestricted access to databases (2 marks)

46. Which one of the following symptoms is **NOT** related to dirty power?
   A. Flickering lights
   B. Equipment noise
   C. Sudden blackout
   D. Transformer issues (2 marks)

47. What does the Power Supply Unit (PSU) convert from the main supply?
   A. DC voltages
   B. AC currents
   C. Standard peripheral data
   D. ESD precautions (2 marks)

48. Which one of the following methods is an example of an off-site backup?
   A. Saving documents only on the desktop
   B. Keeping a single copy of data on the same hard drive
   C. Printing data on paper for storage in the office
   D. Storing files in a cloud service such as Google Drive (2 marks)

49. Which one of the following features provides a graphical view of the hardware that is installed on the computer?
   A. System Protection
   B. Devices Manager
   C. Action Center
   D. File History (2 marks)

50. Which one of the following components is common in disaster recovery planning?
   A. Identifying critical systems and creating backup procedures
   B. Limiting employee training on security and operational awareness
   C. Removing all security protocols from the system
   D. Reducing system monitoring activities (2 marks)

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CISSE FOUNDATION LEVEL

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

MONDAY: 18 August 2025. Afternoon Paper.   **Time Allowed: 2 hours.**

This paper consists of fifty (50) Multiple Choice Questions. Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. Each question is allocated two (2) marks.

1. Which one of the following terms represents a scientific field that deals with the behavior and movement of electrons?
   A. Industrial Chemistry
   B. Physics of electronics
   C. Thermodynamics
   D. Electromechanics   (2 marks)

2. Which one of the following is a key aspect of standard operating procedures (SOPs) in computer maintenance?
   A. Making assumptions about the problem
   B. Leaving out documentation when servicing
   C. Following clear and structured service steps
   D. Ignoring all required safety procedures   (2 marks)

3. Which one of the following terms describes the system in computers that performs logical operations using binary digits (0s and 1s)?
   A. Analog logic
   B. Tech bits
   C. Digital logic
   D. Programming   (2 marks)

4. Which one of the following safety precautions is observed before opening a computer system unit?
   A. Plug in the power cord
   B. Turn on the monitor
   C. Disconnect all power sources
   D. Insert a USB flash drive   (2 marks)

5. Which one of the following terms is related to choosing components that can work together in a computer system?
   A. Storage checking issues
   B. File copying and merging
   C. Compatibility issues
   D. Software development   (2 marks)

6. Which one of the following factors dictates the appropriate level of computer security adopted?
   A. Sensitivity of data
   B. Hardware upgrades
   C. User interface design
   D. Screen resolution (2 marks)

7. Which one of the following activities poses a health and safety risk in an ICT work environment?
   A. Using dark screen themes without breaks
   B. Remaining seated for long hours without taking breaks
   C. Regularly disinfecting your computer keyboard
   D. Plugging in a mobile phone to charge during work hours (2 marks)

8. Which one of the following steps is undertaken last during the system integration process?
   A. User training and support
   B. System design and architecture
   C. Hardware installation
   D. Requirement analysis (2 marks)

9. Which one of the following types of systems integration connects older on-premise systems with newer systems?
   A. Cloud integration
   B. Legacy integration
   C. Data integration
   D. Application integration (2 marks)

10. Which one of the following security techniques involves replacing sensitive data with fictitious but realistic data to protect it from unauthorised access while still allowing for its use in non-production environments like development, testing and analytics?
    A. Data masking
    B. File duplication
    C. Public sharing
    D. Auto formatting (2 marks)

11. A computer is overheating and shutting down. Which one of the following statements is the **MOST** likely hardware-related solution?
    A. Reduce screen brightness and close unused apps
    B. Add extra USB ports, fans and external drives
    C. Clean internal fans and improve system airflow
    D. Defragment the disk and clean the heat sink (2 marks)

12. Which one of the following statements **BEST** describes to a commonly used method for providing ICT support from a different location?
    A. Face-to-face classroom session
    B. Telephone troubleshooting only
    C. Use paper manuals for support
    D. Remote desktop access software (2 marks)

13. Which one of the following techniques helps to prevent user-related security breaches?
    A.   End user education
    B.   Graphic design training
    C.   Multimedia tools
    D.   Programming shortcuts   (2 marks)

14. The following are components of information systems, **EXCEPT** _____.
    A.   hardware
    B.   software
    C.   electricity
    D.   people   (2 marks)

15. In complex enterprise environments, which one of the following statements is a major challenge in achieving seamless system integration, particularly when incorporating third-party services?
    A.   Variations in data models and system interfaces
    B.   Lack of detailed manuals for all components
    C.   Dependence on basic plug-and-play hardware
    D.   Frequent staff changes in technical teams   (2 marks)

16. During system integration, which one of the following challenges hinders effective data interoperability between heterogeneous systems?
    A.   Applying encryption methods for secure transmission
    B.   Differences in data governance rules and practices
    C.   Availability of fast and powerful system processors
    D.   Use of basic network protocols such as TCP/IP   (2 marks)

17. Which one of the following categories **BEST** describes devices such as desktops and laptops?
    A.   Mini computers
    B.   Cloud devices
    C.   Personal computers
    D.   Virtual machines   (2 marks)

18. Which one of the following **BEST** describes the purpose of application security in a computer system?
    A.   Enabling screen savers to block unauthorised access
    B.   Protecting applications from threats and weaknesses
    C.   Compressing files to reduce overall storage space
    D.   Deleting unused files to increase disk availability   (2 marks)

19. Which one of the following statements **CORRECTLY** describes what happens when a computer system runs out of available RAM during heavy processing?
    A.   Closes background programs to free up memory
    B.   Powers off automatically to prevent overheating
    C.   Swaps data from RAM to virtual hard disk storage
    D.   Sends memory data directly to the graphics card   (2 marks)

20. Which one of the following statements is a major environmental risk associated with improper disposal of e-waste?
   A. Growth in global internet usage and traffic
   B. Release of harmful metals into ecosystems
   C. Reduced speed in data fiber transmission lines
   D. Overheating of handheld digital devices   (2 marks)

21. Select one option from the list below that describes managing user inquiries and technical problems from a centralised team.
   A. Installing and configuring local networks
   B. Using remote servers for data processing
   C. Managing support through a help desk
   D. Tracking user feedback on social platforms   (2 marks)

22. Which one of the following issues is addressed by resolving frequent program crashes?
   A. Antivirus updates
   B. RAM upgrades
   C. Printer connectivity
   D. Software issues   (2 marks)

23. Which one of the following problems is the result of deleting temporary files and disabling startup programs?
   A. Slowing down access to internet services
   B. Boosting the performance of a slow computer
   C. Decreasing the display screen resolution
   D. Enlarging the overall size of stored files   (2 marks)

24. In digital systems, the logic gate that outputs true only when both inputs are true is called _____.
   A. OR gate
   B. NAND gate
   C. AND gate
   D. NOR gate   (2 marks)

25. Which one of the following tools is **MOST** suitable for preventing electrostatic discharge during electronic device maintenance?
   A. Heated soldering tool for circuit repair
   B. Handheld cutter for trimming loose wires
   C. Measuring device for voltage and current
   D. Wrist strap designed to discharge static   (2 marks)

26. Which one of the following statements is a **CORRECT** safety measure when working on an open computer system?
   A. Standing on a carpet while handling components
   B. Disconnecting the power before opening the case
   C. Touching the processor chip with bare fingers
   D. Wearing metal jewelry while repairing hardware   (2 marks)

27. Which one of the following refers to the support offered through the internet by ICT consultants?
    A.   Offline assistance
    B.   Manual servicing
    C.   Online support
    D.   Digital support   (2 marks)

28. Which one of the following components determines the type of processor and memory a computer system can support?
    A.   Power supply unit
    B.   Motherboard
    C.   Hard disk drive
    D.   Graphics card   (2 marks)

29. Which one of the following protocols is **MOST** used with web services to send and receive messages?
    A.   FTP
    B.   SMTP
    C.   HTTP
    D.   Wi-Fi   (2 marks)

30. Which one of the following procedures is the **CORRECT** order for assembling a desktop computer?
    A.   Install hard drive → Connect power cable → Install CPU → Install motherboard→ Attach peripherals
    B.   Install motherboard → Install CPU and RAM → Connect storage and power supply → Attach peripherals
    C.   Connect monitor → Connect keyboard → Plug in power → Attach peripherals
    D.   Install operating system first → Install CPU and RAM → Connect storage and power supply   (2 marks)

31. If a computer's display is blank but the power light is on, which one of the following could be a likely hardware problem?
    A.   Damaged monitor cable or faulty graphics card
    B.   Entering an incorrect login password repeatedly
    C.   Experiencing a very slow internet connection
    D.   Deleting all items from the Recycle Bin folder   (2 marks)

32. Which one of the following **BEST** explains how XML is used in system and application integration?
    A.   Designing visual layouts for user interfaces
    B.   Defining, storing and sharing structured data
    C.   Replacing traditional programming languages
    D.   Creating and maintaining full database system   (2 marks)

33. Which one of the following standards is used to ensure secure communication in web services under the WS-framework?
    A.   WS-Security
    B.   WS-Banking
    C.   WS-Media
    D.   WS-Host   (2 marks)

34. Select one option from the list below that **CORRECTLY** describes the function of a transistor in computer electronics.
    A.   Storing digital files within system memory
    B.   Cooling the CPU or linking external ports
    C.   Amplifying or switching electronic signals
    D.   Connecting various external USB devices   (2 marks)

35. Which one of the following **BEST** helps mitigate vulnerabilities in web applications caused by improper input validation?
    A.   Turning off browser cookies for all users
    B.   Applying strong encryption to all data traffic
    C.   Running software in isolated environments
    D.   Using input checks and structured SQL queries   (2 marks)

36. Recovery time objective in disaster recovery planning refers to _____.
    A.   duration required to detect a security breach
    B.   longest acceptable period of system downtime
    C.   shortest time allowed to complete data backup
    D.   maximum limit for acceptable data loss even   (2 marks)

37. Which one of the following tools is **MOST** appropriate for identifying faulty hardware components, such as RAM or hard drives?
    A.   Utility for scheduling automated system tasks
    B.   Program used to reorganise disk file storage
    C.   Tool designed to run hardware diagnostic tests
    D.   Interface for adjusting general system settings   (2 marks)

38. Which one of the following statements is **MOST** likely to resolve a persistent "DLL file missing" error when launching a program?
    A.   Replacing old components with new hardware
    B.   Reinstalling the program that shows the error
    C.   Modifying user account permission settings
    D.   Adjusting the screen to a higher resolution   (2 marks)

39. Which one of the following software-based actions can significantly improve a computer's performance without upgrading hardware?
    A.   Turning off all automatic system updates
    B.   Installing and running several antivirus tools
    C.   Removing unused apps and cleaning up the disk
    D.   Replacing the desktop with a command interface   (2 marks)

40. Which one of the following statements **BEST** illustrates the principle of least privilege in computer security?
    A.   Allowing every user full admin right for ease
    B.   Providing access only needed for job tasks
    C.   Encrypting all messages before sending them
    D.   Blocking internet use through strict firewall rules   (2 marks)

41. Which one of the following is **MOST** essential when validating the effectiveness of a backup system?
    A.   The total number of backups stored
    B.   The location of the backup hardware
    C.   Performing regular test restorations
    D.   Using only physical backup media   (2 marks)

42. Which one of the following practices **BEST** mitigates the risk of cross-site scripting (XSS) attacks in web applications?
    A.   Validating and encoding user input for output
    B.   Encrypting all data stored in the application
    C.   Using certificates to confirm user identities
    D.   Enforcing strong rules for user passwords   (2 marks)

43. Which one of the following characteristics indicates a modular power supply unit design?
    A.   It uses smaller fans for quieter performance
    B.   It includes all cables permanently attached
    C.   It allows cables to be connected as needed
    D.   It cannot be used in gaming PCs   (2 marks)

44. Select from the list below, the **CORRECT** method to apply thermal paste during CPU installation.
    A.   Cover the entire surface with paste
    B.   Use a pea-sized drop at the center
    C.   Spread a thin layer using a credit card
    D.   Apply paste to the cooler instead   (2 marks)

45. If a printer leaves streaks on the page, which one of the following issues is likely involved?
    A.   Dirty print head or drum
    B.   Damaged RAM
    C.   Misconfigured network
    D.   Paper size mismatch   (2 marks)

46. Which one of the following is a common cause of a "No boot device found" error?
    A.   Setting an incorrect screen resolution mode
    B.   Having a disconnected keyboard connection
    C.   Running the system on a low battery charge
    D.   Using an unplugged or damaged hard drive   (2 marks)

47. Which one of the following upgrades will **NOT** significantly enhance system performance?
    A.   Adding a case LED strip
    B.   Replacing HDD with SSD
    C.   Adding 8GB more RAM
    D.   Upgrading from dual-core to quad-core CPU   (2 marks)

48. Which one of the following techniques ensures that only authenticated applications can run on a system?
   A. Code injection
   B. Application sandboxing
   C. Secure hash algorithm
   D. Database normalisation   (2 marks)

49. Which one of the following disaster recovery sites is operational with fully duplicated systems and data?
   A. Warm site
   B. Offsite backup
   C. Cold site
   D. Hot site   (2 marks)

50. Which one of the following operational controls helps prevent unauthorised access to server rooms?
   A. Password policy
   B. CCTV cameras
   C. Biometric access control
   D. Firewall configuration   (2 marks)

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CISSE FOUNDATION LEVEL

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

TUESDAY: 22 April 2025. Afternoon Paper. **Time Allowed: 2 hours.**

This paper consists of fifty (50) Multiple Choice Questions. Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. Each question is allocated two (2) marks.

1. Which one of the following statements would be the first step in troubleshooting a PC?
    A. Check the computer CMOS
    B. Define the circumstances of the problem
    C. Call the vendor
    D. Define what applications are being used   (2 marks)

    ANSWER: B

2. Which one of the following statement would you consider first when troubleshooting a faulty monitor?
    A. Check its connections to the computer and power source
    B. Use a meter to check the CRT and internal circuitry for continuity
    C. Power down the monitor, then turn it on again to see if that corrects the problem
    D. Power down the computer, then turn it on again to see if that corrects the problem   (2 marks)

    ANSWER: A

3. The primary reason for regularly cleaning computer hardware components is to _____.
    A. make the computer run faster
    B. prevent hardware damage and extend the lifespan
    C. improve software performance
    D. reduce electricity consumption   (2 marks)

    ANSWER: B

4. The primary purpose of thermal paste in a computer's CPU cooling system is to _____.
    A. add color to the CPU
    B. cool the CPU
    C. make the CPU run
    D. faster improve software performance   (2 marks)

    ANSWER: B

5. To prevent electrostatic discharge (ESD) when working on computer hardware components, one should _____.
    A. touch the metal case of the computer to discharge static electricity
    B. wear rubber gloves
    C. use a plastic screwdriver
    D. work in a humid environment   (2 marks)

    ANSWER: A

6.   The purpose of a Uninterruptible Power Supply (UPS) in hardware maintenance is to _____.
      A.   increase CPU speed
      B.   provide extra storage capacity
      C.   protect computer equipment from power surges and provide backup power during outages
      D.   clean the computer screen   (2 marks)

      ANSWER: C

7.   The purpose of defragmenting a hard drive-in hardware maintenance is to _____.
      A.   remove viruses
      B.   organise and optimise data on the hard drive for faster access
      C.   clean the hard drive
      D.   increase RAM capacity   (2 marks)

      ANSWER: B

8.   What should you do if a laptop's battery is not holding a charge as it used to?
      A.   Replace the laptop's motherboard
      B.   Continue using it without a battery
      C.   Recalibrate the battery or replace it if necessary
      D.   Clean the battery contacts   (2 marks)

      ANSWER: C

9.   What should you do if you notice that the computer's cooling fan is making unusual noises, such as grinding or rattling?
      A.   Ignore it; the noise will go away on its own
      B.   Replace the entire computer
      C.   Clean the fan and its surroundings and replace the fan if necessary
      D.   Increase the volume of the computer's speakers to drown out the noise   (2 marks)

      ANSWER: C

10.   The purpose of updating device drivers in hardware maintenance is to _____.
      A.   increase CPU speed
      B.   prevent overheating
      C.   improve hardware compatibility and performance
      D.   clean the hard drive   (2 marks)

      ANSWER: C

11.   Which one of the following is a practice that individuals adopt to contribute to e-waste reduction?
      A.   Upgrading to new devices frequently
      B.   Donating or selling old electronics
      C.   Throwing electronics in regular trash bins
      D.   Ignoring old electronics   (2 marks)

      ANSWER: B

12.   E-waste contribute to air pollution by _____.
      A.   emitting greenhouse gases
      B.   releasing toxic fumes when burned
      C.   increasing oxygen levels in the atmosphere
      D.   reducing particulate matter   (2 marks)

      ANSWER: B

13.   In which one of the following category of software maintenance does the modification of the software to match changes in the ever-changing environment fall under?
      A.   Corrective
      B.   Adaptive
      C.   Perfective
      D.   Preventive   (2 marks)

      ANSWER: B

14. An attempt to steal, spy, damage or destroy computer systems, networks or their associated information is known as _____.
    A.   cyber attack
    B.   computer security
    C.   cryptography
    D.   digital hacking   (2 marks)

    ANSWER: A

15. Which one of the following statements is **NOT** a fundamental level of computer security?
    A.   Physical Security
    B.   Network Security
    C.   Application Security
    D.   Social Engineering   (2 marks)

    ANSWER: D

16. Which one of the following ethical hacking technique is used for determining which operating system (OS) is running on a remote computer?
    A.   System fingerprinting
    B.   System penetration testing
    C.   Digital-printing
    D.   Machine printing   (2 marks)

    ANSWER: A

17. The process of translating plain text to cipher text is known as _____.
    A.   steganography
    B.   chorography
    C.   encryption
    D.   authentication   (2 marks)

    ANSWER: C

18. Which one of the following is **NOT** a common method of data backup?
    A.   Incremental backup
    B.   Cloud backup
    C.   Data deletion
    D.   Full backup   (2 marks)

    ANSWER: C

19. Which one of the following terms defines the acceptable amount of data loss that an organisation can tolerate before experiencing significant business disruption?
    A.   Data Recovery Time
    B.   Mean Time Between Failures (MTBF)
    C.   Acceptable Data Loss Tolerance
    D.   Maximum Tolerable Downtime (MTD)   (2 marks)

    ANSWER: A

20. In the context of data backup, data retention is the _____.
    A.   process of permanently deleting data
    B.   duration for which backup copies of data are stored
    C.   process of copying data to a new location
    D.   encryption of data   (2 marks)

    ANSWER: B

21. Which team within an organisation is primarily responsible for ensuring the availability of IT systems and data in the event of a disaster, including the maintenance of backups and recovery plans?
    A.   Security operations team
    B.   Systems administration team
    C.   Business continuity team
    D.   Network engineering team   (2 marks)

    ANSWER: C

22. Which one of the following is a significant obstacle when integrating different systems within an organisation?
    A.   Maintaining consistent system performance
    B.   Achieving interoperability between diverse technologies
    C.   Ensuring data security across integrated systems
    D.   Managing the complexity of system upgrades   (2 marks)

    ANSWER: B

23. What is the primary role of software that facilitates communication and data exchange between different applications or systems within an organisation?
    A.   Database Management System
    B.   Application Programming Interface
    C.   Operating System
    D.   Network Management System   (2 marks)

    ANSWER: B

24. Which one of the following integration approaches uses a central hub to manage communication between different systems?
    A.   Point-to-Point Integration
    B.   Hub-and-Spoke Integration
    C.   Client-Server Integration
    D.   Batch Processing   (2 marks)

    ANSWER: B

25. Which one of the following statements should be avoided to ensure online security?
    A.   Using strong and unique passwords for each account
    B.   Regularly updating software
    C.   Sharing passwords with friends for convenience
    D.   Using two-factor authentication   (2 marks)

    ANSWER: C

26. Which one of the following trends is currently transforming Information Systems and Integration?
    A.   Use of manual processes to manage data
    B.   Artificial Intelligence
    C.   Cloud storage
    D.   Replacing all legacy systems with on-premise solutions   (2 marks)

    ANSWER: B

27. Which one of the following statements **BEST** describes the role of Information Systems (IS) in decision-making?
    A.   IS reduce the need for decision-making
    B.   IS automate all decision-making processes
    C.   IS provide accurate, timely information
    D.   IS only support financial decisions   (2 marks)

    ANSWER: C

28. Which one of the following is **NOT** a key component of an Information System (IS)?
    A.   Hardware devices
    B.   Data
    C.   People
    D.   Marketing Strategy   (2 marks)

    ANSWER: D

29. The **MAIN** purpose of an Enterprise Resource Planning (ERP) system is to _____.
    A.   track financial transactions only
    B.   integrate various business functions and processes
    C.   manage customer relationships
    D.   handle only sales and marketing functions   (2 marks)

    ANSWER: B

30. A key security consideration when integrating multiple information systems is _____.
    A.   ensuring that each system operates in isolation
    B.   encrypting sensitive data during transmission
    C.   increasing the number of systems connected to the network
    D.   disabling firewalls for better communication   (2 marks)

    ANSWER: B

31. In XML, which of the following is **TRUE** about attributes?
    A.   They are used to define the data structure
    B.   They cannot have multiple values
    C.   They can only be used in the root element
    D.   They are written inside a <![CDATA[]]> section   (2 marks)

    ANSWER: B

32. The main use of XML Schema (XSD) is to _____.
    A.   define the layout of an XML document
    B.   transform XML documents into HTML
    C.   validate the structure and data types of XML documents
    D.   create XML documents from databases   (2 marks)

    ANSWER: C

33. Which one of the following methods is used to validate XML data?
    A.   XSLT
    B.   XPath
    C.   XSD
    D.   HTML   (2 marks)

    ANSWER: C

34. The main difference between REST and SOAP?
    A.   REST is based on XML while SOAP is based on JSON
    B.   REST is a protocol while SOAP is a service
    C.   REST uses HTTP and is more lightweight, while SOAP is more complex and can work over multiple protocols
    D.   SOAP is stateless, while REST is stateful   (2 marks)

    ANSWER: C

35. Which one of the following web service architectures is based on the principles of "Stateless", "Cacheable" and "Uniform Interface"?
    A.   SOAP
    B.   REST
    C.   XML-RPC
    D.   CORBA   (2 marks)

    ANSWER: B

36. Which one of the following is **TRUE** about SOAP web services?
    A.   They are designed to be lightweight
    B.   They are based on HTTP only
    C.   They use XML for message formatting and can operate over multiple protocols.
    D.   They do not require any special standards for security   (2 marks)

    ANSWER: C

36. Which one of the following statements **BEST** describes a key characteristic of Simple Object Access Protocol (SOAP) web services?
   A. Supports a variety of communication protocols
   B. Primarily designed for RESTful architectures
   C. Relies exclusively on JSON for data exchange
   D. Prioritises simplicity and minimal overhead   (2 marks)

   ANSWER: A

37. Which one of the following statements is **TRUE** about RESTful web services?
   A. REST is based on XML messaging format
   B. REST is stateless and uses HTTP methods.
   C. REST services require a special client library
   D. REST is based on SOAP messaging   (2 marks)

   ANSWER: B

38. A web service is a _____.
   A. a software application running on a local server
   B. a service that provides a programmatic interface for remote interaction over the web
   C. a service for hosting databases
   D. a client-side technology   (2 marks)

   ANSWER: B

39. Which one of the following abbreviations is **NOT** a type of web service?
   A. SOAP
   B. REST
   C. WSDL
   D. RMI   (2 marks)

   ANSWER: D

40. What is the fundamental objective of connecting and coordinating various software applications within an organisation?
   A. Enhancing system security
   B. Streamlining operational processes
   C. Reducing hardware costs
   D. Improving user interface design   (2 marks)

   ANSWER: B

41. Which one of the following statements **BEST** describes the primary function of a key component in modern IT architectures that facilitates communication and data exchange between various software systems?
   A. Enables seamless interaction between different applications
   B. Manages network traffic and ensures data security
   C. Provides a centralised platform for data storage and retrieval
   D. Focuses on user interface design and user experience   (2 marks)

   ANSWER: A

42. In application integration, what does "data mapping" involve?
   A. Connecting different software applications
   B. Storing large amounts of data in a central repository
   C. Translating data between different formats or structures to enable integration
   D. Creating security protocols for data transfer   (2 marks)

   ANSWER: C

43. What is data virtualisation in the context of enterprise integration?
    A. A process that creates a virtualised version of the entire data storage system
    B. A method of abstracting data access, allowing different applications to interact with data in real time without replication
    C. A strategy for combining data from multiple physical sources into a single physical storage unit
    D. A tool for compressing and optimising data   (2 marks)

    ANSWER: B

44. Which enterprise integration approach is most appropriate for integrating cloud-based applications with on-premise systems?
    A. Point-to-Point Integration
    B. Hybrid Integration
    C. Peer-to-Peer Integration
    D. Data Replication   (2 marks)

    ANSWER: B

45. Which one of the following integration strategies involves a middleware layer that handles message routing, transformation and communication between different systems?
    A. Event-Driven Architecture
    B. Hub-and-Spoke Architecture
    C. Point-to-Point Integration
    D. Enterprise Service Bus   (2 marks)

    ANSWER: D

46. What is the primary goal of establishing interconnectivity and coordination among different software systems and databases within an organisation?
    A. Enhancing data redundancy and minimising data loss
    B. Simplifying application development and deployment
    C. Optimising resource utilisation and reducing operational costs
    D. Improving business agility and operational efficiency   (2 marks)

    ANSWER: D

47. Which one of the following enterprise integration strategies is characterised by the use of centralised middleware to facilitate communication between various systems?
    A. Point-to-Point Integration
    B. Service-Oriented Architecture (SOA)
    C. Enterprise Service Bus (ESB)
    D. Cloud Integration   (2 marks)

    ANSWER: C

48. Which one of the following is a combinational circuit?
    A. Flip-flop
    B. Counter
    C. Multiplexer
    D. Latch   (2 marks)

    ANSWER: C

49. Which one of the following is the basic building block of digital circuits?
    A. Transistor
    B. Resistor
    C. Capacitor
    D. Logic gate   (2 marks)

    ANSWER: D

50.   The primary goal of a data backup and restoration procedure is to _____ .
    A.   prevent data loss due to hardware failures
    B.   improve data access speeds
    C.   enhance data encryption
    D.   optimise storage space utilisation   (2 marks)

ANSWER: A

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CISSE FOUNDATION LEVEL

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

MONDAY: 2 December 2024. Afternoon Paper.   **Time Allowed: 2 hours.**

This paper consists of fifty (50) Multiple Choice Questions. Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. Each question is allocated two (2) marks.

1. Which one of the following number systems is used in computing to represent the natural numbers that human beings can perceive?
   A. Binary
   B. Hexadecimal
   C. Decimal
   D. Octal   (2 marks)

2. Which one of the following tools could be used to improve heat transfer between the CPU and its cooling system?
   A. Thermal paste
   B. Compressed air
   C. Multimeter
   D. Cable tester   (2 marks)

3. Convert 43_{10} into its equivalent binary number and choose the correct one from the options that follow
   A. 111010_2
   B. 101011_2
   C. 011011_2
   D. 100001_2 (2 marks)

4. What command could be used to troubleshoot and obtain detailed information about the system's components, graphics, sound and input devices?
   A. Defrag
   B. Compmgmt
   C. Regedit
   D. Dxdiag   (2 marks)

5. Which one of the following statements justifies why it is advisable to disconnect the computer from the power before opening a computer case?
   A. To prevent electrostatic discharge
   B. Avoid obstruction of airflow
   C. Avoid sharp object injury
   D. To avoid overloading the electrical outlet   (2 marks)

6. Which one of the following actions is a tell-tale sign of a computer that has inadequate cooling?
   A. No boot
   B. Display issues
   C. Overheating
   D. 2 beeps when loading (2 marks)

7. The **BEST** computer upgrade that would improve the performance in games or video rendering tasks is by _____.
   A. upgrading to SSD from HDD
   B. adding more RAM
   C. upgrading to a newer CPU
   D. upgrading to a newer GPU (2 marks)

8. Which one of the following tools could be used remotely to support staff to configure their computers working from different offices?
   A. VMware
   B. Anydesk
   C. Groupwise
   D. Live chat (2 marks)

9. The recommend software to track and manage the issues raised by users to an organisation is known as _____.
   A. ERP system
   B. CRM system
   C. ticketing system
   D. email system (2 marks)

10. Which one of the following methods is the **BEST** solution to software compatibility issues?
    A. Check system requirements
    B. Run antivirus software
    C. Check for the recent hardware changes
    D. Run network diagnostics (2 marks)

11. The type of malware where a malicious actor gains access to an unsuspecting user's is known as _____.
    A. trojan horse
    B. ransomware
    C. spyware
    D. adware (2 marks)

12. Which one of the following network security measures helps to protect data for integrity and confidentiality?
    A. User authentication
    B. Use of SSL/TLS protocols
    C. Regular software updates
    D. Installing surveillance cameras (2 marks)

13. Which one of the following commands can be typed at the Windows search bar to open the temporary files folder?
   A.   %temp
   B.   ?temp%
   C.   %temp%
   D.   Temp   (2 marks)

14. Which one of the following tools **BEST** describes the type of device driver that consists of some generic hardware loaded with the operating system?
   A.   User-mode device drivers
   B.   Remote device drivers
   C.   Motherboard drivers
   D.   Kernel device drivers   (2 marks)

15. Which one of the following is the advantage of system integration that allows organisations to reduce manual intervention and increase productivity?
   A.   Collaboration
   B.   Automation
   C.   Centralisation
   D.   Containerisation   (2 marks)

16. Which one of the following statements **BEST** defines the term "ergonomics"?
   A.   The correct way to position your feet
   B.   How to use a computer to view safety software
   C.   Study of best practice when using computers
   D.   How to use a computer to view safety software   (2 marks)

17. The design of the architecture is paramount in system integration. Which one of the following considerations ensures that systems can communicate using an application programming interface?
   A.   Interoperability
   B.   Scalability
   C.   Security
   D.   Compatibility   (2 marks)

18. The verification of identity of a user, process or device as a prerequisite to allowing access to resources in an information system is known as _____.
   A.   configuration
   B.   accessibility
   C.   authentication
   D.   logging in   (2 marks)

19. The type of storage device that stores data using faster flash-based memory is known as _____.
   A.   integrated development environment (IDE)
   B.   solid state drive (SSD)
   C.   serial Advanced Technology Attachment (SATA)
   D.   parallel Advanced technology attachment (PATA)   (2 marks)

20. Which one of the following systems integration techniques **BEST** allows the ERP, CRM and payroll systems to share data in an organisation?
    A.   API integration
    B.   Cloud-based integration
    C.   Service-oriented architecture
    D.   Middle-based integration   (2 marks)

21. A component of the web service technologies that is used for exchanging structured information in web services is known as _____.
    A.   SOAP
    B.   REST
    C.   WDSL
    D.   UDDI   (2 marks)

22. The process of speeding up the performance of a computer processor by increasing the processor's clock speed is known as _____.
    A.   overheating
    B.   multi-core processing
    C.   overclocking
    D.   throttling   (2 marks)

23. The **BEST** reason why rebooting a computer is necessary after changing a PC display setting is to _____.
    A.   activate the video card
    B.   deactivate the video card
    C.   initialise the video memory
    D.   load the new device driver   (2 marks)

24. Which one of the following statements is a computer upgrading activity aimed at handling multitasking efficiently?
    A.   Adding more random-access memory (RAM)
    B.   Upgrading the processor
    C.   Installing a faster solid-state drive (SSD)
    D.   Upgrading the graphics card   (2 marks)

25. When an input signal of A=1 and B=0 is applied to a NOR gate, the output is _____.
    A.   low
    B.   high
    C.   either high or low
    D.   neither low nor high   (2 marks)

26. As a user support staff, an employee has requested you to upgrade the memory for a laptop that you are not familiar with. How can you obtain the service manual for this laptop computer?
    A.   CTRL+ENTER
    B.   CTRL + WINDOW
    C.   F1
    D.   F2   (2 marks)

27. Which one of the following security goals states that information should not be altered without authorisation?
    A.   Confidentiality
    B.   Integrity
    C.   Availability
    D.   Non-repudiation   (2 marks)

28. When determining if the computer problem is related to hardware or software, which one of the following questions is the **MOST** important to ask?
    A.   Any recent hardware or software installed?
    B.   Does the monitor work with the current specification?
    C.   Is the computer plugged in on to a power source?
    D.   What operating system are you using?   (2 marks)

29. Which one of the following components will act as a switch in a computer microchip?
    A.   Diode
    B.   Transistor
    C.   Resistor
    D.   Capacitor   (2 marks)

30. Which one of the following options **CANNOT** be classified as internal computer hardware?
    A.   Joystick
    B.   Motherboard
    C.   Microprocessor
    D.   Expansion card   (2 marks)

31. Which one of the following types of system integration connects databases and work flows to ensure that data is shared throughout the Information Technology (IT) environment?
    A.   Vertical integration
    B.   Enterprise application integration
    C.   Legacy system integration
    D.   Data Integration   (2 marks)

32. Which one of the following statements is **NOT** a symptom of computer power supply failure?
    A.   No power when pressing the power button
    B.   Intermittent power
    C.   Strange noises from the fan or capacitors
    D.   Computer beeps   (2 marks)

33. Which one of the following router security mode provides the security needed for wireless networks in business environments by offering control over access to the Wi-Fi network?
    A.   WPA-Personal
    B.   WPA-Enterprise
    C.   WEP
    D.   WEP-Personal   (2 marks)

34. Which one of the following computer generations used transistors as their basic design components?
    A.   First generation
    B.   Third generation
    C.   Second generation
    D.   Fifth generation   (2 marks)

35. Which one of the following items could link the motherboard components in a computer?
    A.   Buses
    B.   Conductors
    C.   Connectors
    D.   Cables   (2 marks)

36. Which one of the following statements is **NOT** a factor to consider before upgrading a computer?
    A.   Needs of the user
    B.   Compatibility of components
    C.   Date of upgrade
    D.   Overall cost of upgrade   (2 marks)

37. Which among the following statements is **NOT** a tip for cleaning computer surfaces?
    A.   Use an anti-static cloth to lightly dust your computer casing
    B.   Use compressed air to blow out debris from the air intake slots
    C.   Clean the monitor housing by spraying a safe cleaning solution
    D.   Spray water onto the keyboard before cleaning   (2 marks)

38. Which one of the following methods is adopted for a fresh installation of Windows 10 on a new computer in place of upgrade?
    A.   Side-by-side migration
    B.   Clean installation
    C.   In place upgrade
    D.   Wipe-and-load migration   (2 marks)

39. The process that prepares a hard drive for data by erasing all data and reconstructing sectors and tracts is known as _____.
    A.   low-level formatting
    B.   high-level formatting
    C.   partitioning
    D.   swap space creation   (2 marks)

40. The assumption that hardware errors and bugs in the software bring the system to a halt, but do not corrupt the non-volatile storage contents is known as the _____.
    A.   stop assumption
    B.   fail assumption
    C.   fail-stop assumption
    D.   halt assumption   (2 marks)

41.   What would you check when a computer experiences frequent crashes and displays a "blue screen" error message?
        A.   Overheating
        B.   Clock configuration settings
        C.   Monitor settings
        D.   Keyboard connectivity   (2 marks)

42.   If your computer is experiencing unwanted pop-up advertisements and redirects to unfamiliar websites, the issue might be _____.
        A.   overheating
        B.   lack of ram
        C.   adware or malware infection
        D.   keyboard connectivity problem   (2 marks)

43.   Which one of the following is the structured approach that describes how an organisation can quickly resume operations after an unplanned incident?
        A.   Business continuity plan
        B.   Disaster recovery plan
        C.   Downtime recovery
        D.   Business recovery plan   (2 marks)

44.   Which one of the following types of security aims to protect software code and data against cyber threats?
        A.   Network security
        B.   Application security
        C.   Administrative security
        D.   Information security   (2 marks)

45.   The option used to change margin of a document is known as _____.
        A.   printer queue
        B.   printing preferences
        C.   printer spooler
        D.   paper selection switch on the printer   (2 marks)

46.   The first step to be taken when troubleshooting a computer problem is to _____.
        A.   restart the computer
        B.   disconnect all peripherals
        C.   call technical support
        D.   check for error messages   (2 marks)

47.   The command used to optimise drivers for effective running of a computer is known as _____.
        A.   cmd
        B.   compmgmt
        C.   devmngr
        D.   defrag   (2 marks)

48. Computer devices such as mouse and keyboard require regular maintenance because they _____.
    A. wear quickly
    B. are breakable
    C. gather dust easily
    D. gather moisture quickly (2 marks)

49. Which of the following tools, is commonly used in the assembly and disassembly of the computer components?
    A. Hammer
    B. Screwdriver
    C. Allen wrench
    D. Duct tape (2 marks)

50. The sudden increase in voltage lasting for a period exceeding 100% of the normal voltage on a line is known as _____.
    A. spike
    B. power surge
    C. noise
    D. blackout (2 marks)

....

kasneb

CISSE FOUNDATION LEVEL

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

MONDAY: 19 August 2024. Afternoon Paper.   **Time Allowed: 2 hours.**

This paper consists of fifty (50) Multiple Choice Questions. Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. Each question is allocated two (2) marks.

1. A NOT gate inverts the input. If the input is 1, what is the output?
   A.   1
   B.   0
   C.   2
   D.   -1   (2 marks)

2. Which one of the following is an information system component?
   A.   Hard disk
   B.   Operating system
   C.   Central processing unit
   D.   Database   (2 marks)

3. What is the binary representation of the decimal number 5?
   A.   101
   B.   100
   C.   111
   D.   010   (2 marks)

4. Which one of the following components is critical for ensuring RAM compatibility with a motherboard?
   A.   CPU
   B.   Power supply
   C.   RAM slot type
   D.   Hard drive   (2 marks)

5. Which of the following **BEST** describes the characteristics of the information that is required by the lowest level executives in an organisation?
   A.   It is highly summarised and relevant to the long term
   B.   It is highly detailed and relevant to the short term
   C.   It is highly detailed and relevant to the long term
   D.   It is highly summarised and relevant to the short term   (2 marks)

6. Which one of the following technologies focuses on ensuring different software applications and systems work together as a cohesive whole?
   A.   Data warehouse
   B.   Data lake
   C.   Data integration
   D.   System integration   (2 marks)

7. Which of the following **BEST** describes middleware in the context of systems integration?
   A.   A user interface design framework
   B.   A database management system
   C.   A tool for extracting and transforming data from heterogeneous sources
   D.   A software layer that facilitates communication between different systems   (2 marks)
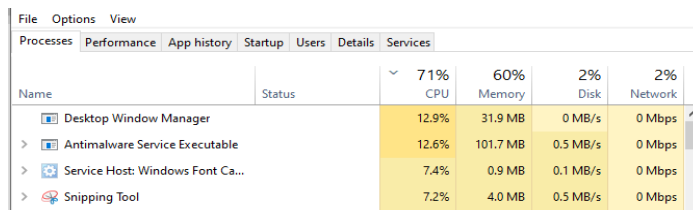
8. The process by which all the internal components of the computer system are fitted to make the computer functional is known as _____.
   A. computer connectivity
   B. computer assembly
   C. computer functionality
   D. component connectivity (2 marks)

9. Which one of the following CPU components manages instruction processing and coordinates data flow within the CPU and between other computer components?
   A. Control unit
   B. CPU registers
   C. Memory management unit
   D. CPU clock (2 marks)

10. Which one of the following is a type of system integration that unifies different sub-systems within a business environment?
    A. Legacy system integration
    B. Enterprise application integration
    C. Third-party system integration
    D. Business-to-business integration (2 marks)

11. The web language that displays content given in a text-based document in a graphical form in a browser is known as _____.
    A. XML
    B. XPath
    C. eXtensible Stylesheet Language
    D. HTML (2 marks)

12. Which of the following is the syntax that programmers use to code assembly language programs?
    A. Binary
    B. English like statements
    C. Mnemonics
    D. Natural codes (2 marks)

13. Which of the following is a form of microcode or program embedded into hardware devices to help them operate effectively?
    A. Orgware
    B. Firmware
    C. Random access memory
    D. Read only memory (2 marks)

14. Which one of the following is **BEST** describes the activity of building awareness among employees by equipping them with the necessary tools and skills required to protect themselves and the company data from loss or attack?
    A. Employee tasking
    B. End user education
    C. Classroom education
    D. Departmental education (2 marks)

15. Which type of issue does RAM failure commonly cause in a computer?
    A. Slow startup
    B. Overheating
    C. Blue screen errors
    D. Network connectivity issues (2 marks)

16. What is the primary advantage of using remote assistance tools in online support?
    A. Enhancing local network security
    B. Limiting software updates
    C. Providing support from a distance
    D. Optimising hardware performance (2 marks)

17. Which of the following refers to the person that sends irrelevant or unsolicited messages over the internet, typically to large numbers of users for the purposes of advertising, phishing or spreading malware?
    A.   Hacker
    B.   Data administrator
    C.   Spammer
    D.   Programmer   (2 marks)

18. A type of application security which involves transmitting sensitive data in coded format to keep it private as it travels across networks and servers is referred to as _____.
    A.   decryption
    B.   athentication
    C.   encryption
    D.   authorisation   (2 marks)

19. The electronic component that can convert alternating current (AC) voltage to direct current (DC) voltage for use in a computer system is referred to as _____.
    A.   rectifier
    B.   transformer
    C.   resistor
    D.   capacitor   (2 marks)

20. The logic gate that gives a true output when all inputs are true is known as _____ gate.
    A.   NAND
    B.   AND
    C.   NOT
    D.   XOR   (2 marks)

21. Which one of the following is a classification of a computer based on size and processing capabilities?
    A.   Mini computer
    B.   Digital computer
    C.   Analog computer
    D.   Dedicated computer   (2 marks)

22. The ability of computer users to access a device or a network from any location is referred to as _____.
    A.   location friendly access
    B.   remote access
    C.   timely access
    D.   network access   (2 marks)

23. Which one of the following is a safety precautionary measure used when working on a computer?
    A.   List all the parts when assembling the computer
    B.   Turn on the power and plug equipment before performing service
    C.   Cover sharp edges inside the computer case with tape
    D.   Wash your hands before starting the computer   (2 marks)

24. Which one of the following software features helps in deleting the temporary files and system files from a computer system?
    A.   File Explorer
    B.   Device Manager
    C.   Disk Defragmenter
    D.   Disk Cleanup   (2 marks)

25. Which one of the following **BEST** relates to fourth generation computers?
    A.   Binaries
    B.   Mnemonics
    C.   High level language
    D.   Natural language   (2 marks)

26. Which one of the following computer generations was the first to support multitasking?
    A.   First generation
    B.   Third generation
    C.   Fifth generation
    D.   Fourth generation   (2 marks)

27. An output device that interprets commands from a computer to make line drawings on a paper is known as
_____.
   A. plotter
   B. printer
   C. visual display unit
   D. projector (2 marks)

28. Which one of the following is **NOT** a cause of the computer frequently restarting problem?
   A. Faulty CPU fan
   B. Faulty expansion card
   C. Faulty RAM cards
   D. Faulty motherboard (2 marks)

29. Which software utility is used to diagnose and fix hard drive errors on a Windows-based computer?
   A. Disk defragmenter
   B. Task manager
   C. Check disk
   D. Disk cleanup (2 marks)

30. The range of services to assist customers in making cost effective and correct use of a product is known as
_____.
   A. customer assistance
   B. customer support
   C. customer training
   D. customer advice (2 marks)

31. Which one of the following is **NOT** a requirement when troubleshooting computers?
   A. Define the problem
   B. Collect relevant information
   C. Propose a solution and test it
   D. Prepare design document (2 marks)

32. Which one of the following is **NOT** a benefit of IT helpdesk?
   A. Quick and easy user support with IT helpdesk
   B. IT helpdesk increases productivity
   C. Reactive problem management
   D. Enhanced security (2 marks)

33. Which one of the following tasks is used to display all the components that are configured in a computer system?
   A. Defragmenter
   B. Computer management
   C. Device manager
   D. Event Viewer (2 marks)

34. The following factors can be attributed to cybersecurity threats, **EXCEPT**_____.
   A. interconnectedness of devices and networks
   B. technology advances
   C. human error
   D. ethical hacking (2 marks)

35. You have been tasked with diagnosing a laptop that is experiencing heavy artifact corruption along with random loss of video during operation. What is the most likely cause to the problem?
   A. Incompatible or untested video drivers were installed
   B. The BIOS is underclocking the video card
   C. Video drivers were not installed directly from Microsoft update
   D. The BIOS is not set for proper video chipset temperature (2 marks)

36. Which tool is primarily used to analyse and optimise network traffic and performance on a Windows computer?
   A. ping
   B. tracert
   C. netstat
   D. Wireshark (2 marks)

37. The problems that affect programs and applications that run on a computer are referred to as _____.
    A.   computer issues
    B.   hardware issues
    C.   software issues
    D.   system issues   (2 marks)

38. Which one of the following describes the function of Read Only Memory (ROM) in a computer?
    A.   To store data that is waiting to be processed
    B.   To store processed data that is waiting to be given as output
    C.   To store data that is being processed
    D.   To store bootup data in a computer   (2 marks)

39. Power On Self-Test (POST) routines will test all of the following, **EXCEPT**_____.
    A.   microprocessor functionality
    B.   multimedia functionality
    C.   memory functionality
    D.   input/Output device functionality   (2 marks)

40. Which one of the following is **NOT** a type of application software?
    A.   Utility program
    B.   Word processing application
    C.   Spreadsheet application
    D.   Database application   (2 marks)

41. Identify the tool used in troubleshooting system support shown in the figure below.

    A.   Display properties
    B.   Performance manager
    C.   File manager
    D.   Task manager   (2 marks)

42. Which one of the following is **NOT** a type of software driver?
    A.   User-mode device drivers
    B.   Remote device drivers
    C.   Motherboard drivers
    D.   Kernel device drivers   (2 marks)

43. Which one of the following is **NOT** an essential computer maintenance tip?
    A.   Organise the system unit
    B.   Purge your system of junk files and programs
    C.   Run regular antivirus scans
    D.   Update your operating system   (2 marks)

44. The term that defines how an organisation responds to a cyber-security incident or any other event that causes loss of operations or data is _____.
    A.   encryption
    B.   end user education
    C.   business ethics
    D.   disaster recovery   (2 marks)

45. Which one of the following refer to the raw facts that must be transformed to support decision making in computing?
    A.   End users
    B.   Instructions
    C.   Data
    D.   Information   (2 marks)

46. Which one of the following **CANNOT** be classified as a mobile device?
   A. Smartphone
   B. Smartwatch
   C. Tablet
   D. Network cable (2 marks)

47. Which one of the following command is used to open the computer management console as used in information systems support?
   A. devmgmt.msc
   B. compmgmt.msc
   C. perfmon
   D. startup (2 marks)

48. Which one of the following is **NOT** a type of computer printer?
   A. Laser printer
   B. Inkjet printer
   C. DELL printer
   D. Dot matrix printer (2 marks)

49. The process of duplicating data and storing it in a secure place in case of loss or damage is referred to as _____.
   A. recovery
   B. backup
   C. copy and paste
   D. secondary storage (2 marks)

50. Which one of the following is a computer upgrading activity aimed at handling multitasking efficiently?
   A. Adding more random-access memory (RAM)
   B. Upgrading the BIOS
   C. Installing a faster solid-state drive (SSD)
   D. Upgrading the graphics card (2 marks)

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CISSE FOUNDATION LEVEL

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

MONDAY: 22 April 2024. Afternoon Paper.   **Time Allowed: 2 hours.**

Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. This paper is made up of fifty (50) Multiple Choice Questions. Each question is allocated two (2) marks.

1. The electronic component that regulates current or voltage flow in addition to amplifying and generating these electrical signals is referred to as:
    A. Diode
    B. Transistor
    C. Resistor
    D. Capacitor   (2 marks)

2. What does the term "Help Desk" refer to in the context of Information Systems Support?
    A. A physical desk made to assist users with their hardware issues
    B. A software tool used for system monitoring
    C. A centralised point by users to seek help with IT-related issues
    D. A database for storing user manuals and documentation   (2 marks)

3. _____ is the digital logic component that performs Boolean logic operation on one or more binary inputs and then gives a single binary output.
    A. Flip flop
    B. Logic gate
    C. Binary logic
    D. Integrated circuit   (2 marks)

4. Which one of the following **BEST** describes the purpose of a Service Level Agreement (SLA) in Information Systems Support?
    A. To outline the responsibilities of the finance department
    B. To regulate hardware procurement procedures
    C. To determine software licensing agreements
    D. To establish obligations between service providers and users   (2 marks)

5. Which one of the following tools can be used to clean RAM chips?
    A. Isopropyl alcohol
    B. Glass cleaner
    C. Compressed air
    D. Vacuum cleaner   (2 marks)

6. Which one of the following is a primary advantage of implementing an Information Technology Infrastructure Library (ITIL) framework in Information Systems Support?
    A. Increased system complexity
    B. Improved service delivery and efficiency
    C. Decreased user satisfaction
    D. To regulate hardware procurement procedures   (2 marks)

7. The measurement device used to measure current, voltage and resistance electrical values is referred to as:
   A. Voltmeter
   B. Ammeter
   C. Multimeter
   D. Outlet tester (2 marks)

8. What is typically the initial step in troubleshooting a PC issue?
   A. Check the computer CMOS
   B. Define the circumstances of the problem
   C. Call the vendor
   D. Define what applications are being used (2 marks)

9. Which one of the following is **NOT** a safety precautionary measure used when working on a computer?
   A. Remove your watch and jewellery and secure loose clothing
   B. Turn off the power and unplug equipment before performing service
   C. Cover sharp edges inside the computer case with tape
   D. Wash your hands before starting the computer (2 marks)

10. Which one of the following two computer problems can often be identified by listening to the computer?
    A. You can hear magnetic hard drive problems and fan problems
    B. You can hear sound card problems and video card problems
    C. You can hear memory problems and computer monitor problems
    D. You can hear network card problems and CPU problems (2 marks)

11. Which one of the following is **NOT** a standard operating procedure for an ergonomic chair?
    A. Computer users should be able to sit all the way into the chair with feet flat on the floor
    B. The seat depth should allow approximately two fingers of space between the back of the knees and edge of the seat pan
    C. The low back should be supported by the back of the chair
    D. Arm rests should be used while typing (2 marks)

12. Which one of the following **BEST** describes a precaution that should be taken before disassembling a computer for cleaning?
    A. Wear an anti-static wrist strap
    B. Ensure the computer is plugged in
    C. Disassemble the computer on a metal surface
    D. Use water to clean the internal components (2 marks)

13. Which one of the following is the computer generation that was supported by Ultra-Large-Scale-Integration (ULSI) chips and semiconductor technology?
    A. Fifth generation
    B. Fourth generation
    C. First generation
    D. Third generation (2 marks)

14. Which one of the following is **NOT** a cause of blue screen of death?
    A. Malfunctioning computer hardware
    B. An issue with software crashing
    C. An issue with drivers
    D. BIOS misconfiguration (2 marks)

15. Which one of the following functions **BEST** describes the Central Processing Unit (CPU) in a PC?
    A. The device that sends the monitor signals telling it what to display
    B. The area that regulates all of the system power usage
    C. The area where all of the Basic Input/output Routines (BIOS) are stored
    D. The area where all of the processing takes place (2 marks)

16. Which one of the following is **NOT** a solution that can be used by a technician to solve the PC slowing down problem?
    A.   Use the Task Manager to find out which programs are using a lot of memory and then close those that aren't in use
    B.   Disable the start-up programs that are not needed
    C.   Restart the computer
    D.   Run a scan and see if it detects any spyware or adware   (2 marks)

17. If the monitor power LED is on but the screen remains dark, what is the **LEAST** likely cause?
    A.   Defect in the computer's video circuitry
    B.   Disconnected video cable
    C.   Defective monitor
    D.   System RAM problem   (2 marks)

18. A term in computer terminology that means a change in the technology of a computer is referred to as:
    A.   Development
    B.   Generation
    C.   Advancement
    D.   Growth   (2 marks)

19. If a computer is experiencing frequent random shutdowns, which component should be checked first for potential faults?
    A.   Hard Disk Drive (HDD)
    B.   Power Supply Unit (PSU)
    C.   RAM
    D.   CPU   (2 marks)

20. Which one of the following is **NOT** a reason for ICT training?
    A.   Acquisition of basic competencies to use computers
    B.   To understand how to diagnose and rectify hardware problems
    C.   To understand how to sell computers
    D.   To help in identifying software problems   (2 marks)

21. What is the purpose of creating regular backups of data in a computer system?
    A.   To free up storage space
    B.   To prevent data loss
    C.   To improve system performance
    D.   To encrypt sensitive data   (2 marks)

22. A computer user recently purchased a video card for gaming purposes. The user installed the appropriate drivers and validated them using the vendor-supplied test tools. However, while gaming, the speed of the case fans increases, the entire system locks up and the user must hard boot to restart the computer. Which of the following is the **MOST** likely cause of this issue?
    A.   Unacceptable CPU type and speed
    B.   Insufficient air flow and cooling
    C.   Inadequate video RAM amount
    D.   Unsupported operating system   (2 marks)

23. What is the primary function of the Basic Input/output System (BIOS) in a computer system?
    A.   Manages communication between the CPU and RAM
    B.   Executes application programs
    C.   Provides a graphical user interface for the operating system
    D.   Controls the boot process and initializes hardware components   (2 marks)

24. Which one of the following is **NOT** a way of solving the slow downloading and uploading problem in computers?
    A.   Check your browser background for any files that could be downloading or uploading
    B.   Run a speed test online to verify the downloading and uploading speeds
    C.   Verify the CPU speed
    D.   Check your network connectivity   (2 marks)

25. What is the purpose of using compressed air when cleaning computer components?
    A. To disinfect the components
    B. To cool down the components
    C. To lubricate moving parts
    D. To remove dust and debris   (2 marks)

26. _____ refers to the various pop-up advertisements that show up on the computer device.
    A. Trojan horse
    B. Adware
    C. Spyware
    D. Ransomware   (2 marks)

27. What is the benefit of conducting a needs analysis before purchasing a computer system?
    A. It helps determine the most fashionable computer model
    B. It guarantees the lowest price for the computer system
    C. It ensures compatibility with existing software and hardware
    D. It increases the complexity of the decision-making process   (2 marks)

28. Which one of the following does **NOT** describe why Random-Access Memory (RAM) should be used in a computer?
    A. To store boot up data
    B. To store data that is waiting to be processed
    C. To store processed data that is waiting to be given as output
    D. To store data that is being processed   (2 marks)

29. Which technology is commonly used for integrating disparate systems by providing a centralised interface for data exchange?
    A. Application Programming Interfaces (APIs)
    B. Internet of Things (IoT)
    C. Virtual Private Network (VPN)
    D. Secure Shell (SSH)   (2 marks)

30. _____refers to the safe and responsible use of information and communication technologies.
    A. Cyber security
    B. Cyber ethics
    C. Cyber safety
    D. Computer ethics   (2 marks)

31. A user complains that their computer screen is displaying strange colors and artifacts. Which of the following troubleshooting steps should be performed first?
    A. Update the graphics driver
    B. Replace the monitor
    C. Check the video cable connection
    D. Reinstall the operating system   (2 marks)

32. Which one of the following is **NOT** a Power-On-Self-Test (POST) output message?
    A. On-screen text messages
    B. Audio codes
    C. Hexadecimal numeric codes
    D. Off-screen text messages   (2 marks)

33. If a computer fails to boot and emits a series of beeps during startup, what is the likely cause?
    A. Faulty RAM
    B. Overheating
    C. Corrupted operating system
    D. Power supply failure   (2 marks)

34. When working with a computer and the software hangs, which of the following shortcut keys is used to open the task manager to end task?
    A.   Windows logo key + D
    B.   Windows logo key + Tab
    C.   Alt +F4+esc
    D.   Alt+ctrl+del   (2 marks)

35. _____defines how an organisation responds to a cyber-security incident or any other event that causes the loss of operations or data.
    A.   Encryption
    B.   End user education
    C.   Business ethics
    D.   Disaster recovery   (2 marks)

36. The use of digital media to intimidate, upset or harm computer users is referred to as _____.
    A.   Cyber bullying
    B.   Cyber security
    C.   Digital footprint
    D.   Cyber stalking   (2 marks)

37. Which one of the following is **NOT** an information system component?
    A.   Memory
    B.   Database
    C.   Hardware
    D.   Software   (2 marks)

38. Which one of the following is **NOT** a system integration issue?
    A.   Incompatible interfaces and formats
    B.   Lack of interoperability between different technologies and protocols
    C.   Data consistency and synchronisation
    D.   Problem of capability and performance limitation   (2 marks)

39. What does data protection primarily focus on?
    A.   Securing physical servers
    B.   Ensuring data is not stolen or corrupted
    C.   Protecting software from malware attacks
    D.   Managing network traffic efficiently   (2 marks)

40. Connecting and managing the underlying hardware and network infrastructure is a vital aspect of system integration. Which of the following is not a key element of infrastructure integration?
    A.   Network connectivity
    B.   Resource management
    C.   Monitoring and alerting
    D.   Process optimisation   (2 marks)

41. What aspect does application security primarily address?
    A.   Securing physical servers
    B.   Protecting data during transmission
    C.   Preventing unauthorised access to software
    D.   Managing network traffic efficiently   (2 marks)

42. Which one of the following computer components can be upgraded?
    A.   Read only memory
    B.   Mouse
    C.   Hard disk drive
    D.   Keyboard   (2 marks)

43. What is XML primarily used for in technology integration?
    A. Storing large amounts of unstructured data
    B. Defining rules for data interchange
    C. Encrypting sensitive information
    D. Optimising network performance (2 marks)

44. Which one of the following is the type of system integration strategy that focuses on expanding the functionality of an existing software?
    A. Third-party system integration
    B. Business-to-business integration
    C. Legacy system integration
    D. Enterprise application integration (2 marks)

45. Which one of the following is **NOT** a step in the system integration process?
    A. Requirements analysis
    B. System design
    C. Hardware maintenance
    D. System testing (2 marks)

46. Identify the screenshot shown below as used in information support:
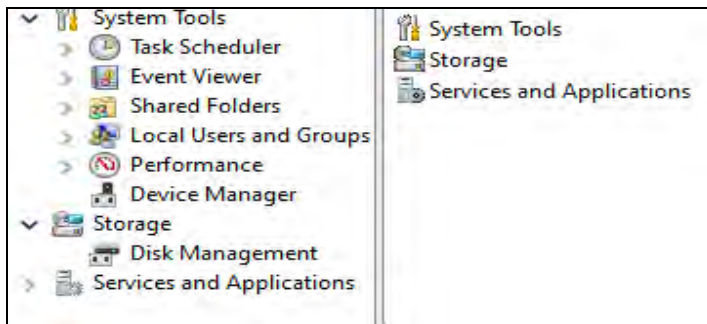
    A. Window management console
    B. Registry window console
    C. Component services console
    D. Computer management console (2 marks)

47. Which one of the following troubleshooting steps should be taken by a technician to solve the problem of the mouse pointer moving intermittently on the screen?
    A. Checking its connection to the port
    B. Cleaning the mouse
    C. Reinstalling the drivers
    D. Checking for a conflict with the modem (2 marks)

48. The task of tracking and controlling changes in the software is referred to as:
    A. Software configuration management
    B. Software troubleshooting
    C. Software maintenance
    D. Software updating (2 marks)

49. Which one of the following is **NOT** a type of computer antivirus program?
    A. Norton
    B. Avast
    C. Oracle
    D. McAfee (2 marks)

50.   Which one of the following refers to the person who uses his or her expertise to gain access to other people's computers to get information illegally?

A.   Hacker
B.   Analyst
C.   Spammer
D.   Programmer   (2 marks)

……………………………………..……………………………………..

CISSE FOUNDATION LEVEL

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

MONDAY: 4 December 2023. Afternoon Paper.   **Time Allowed: 2 hours.**

Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. This paper is made up of fifty (50) Multiple Choice Questions. Each question is allocated two (2) marks.

1.   The process of enabling individual software to work with one another is referred to as?
     A.   Enterprise integration
     B.   Application integration
     C.   Legacy integration
     D.   Hardware integration   (2 marks)

2.   If you turn on a PC and the boot-up process halts, giving you the message: "Non-System disk or disk error....Replace and press any key when ready", the problem is likely:
     A.   A non-bootable disk is in the drive and you should remove it
     B.   The hard-drive has failed and you should replace it
     C.   RAM has failed and you should replace it
     D.   A key on the keyboard is stuck and the keyboard should be replaced   (2 marks)

3.   Which of the following is **NOT** a system integration strategy?
     A.   Backward integration
     B.   Forward integration
     C.   Balanced integration
     D.   Mixed integration   (2 marks)

4.   A user contacts you to report an application error on his workstation. Which of the following could you use to isolate the problem?
     A.   Ask the user to restart his computer
     B.   Ask another user to perform the same action on the original user's PC
     C.   Ask another user to perform a related action on an equivalent machine
     D.   Ask the user to reinstall the NIC in the workstation   (2 marks)

5.   Which of the following describes the type of cyber bullying where someone creates a fake online profile and pretends to be someone they are not in order to trick the victim into a relationship?
     A.   Fraping
     B.   Catfishing
     C.   Doxing
     D.   Outing   (2 marks)

6.   If a PC freezes or behaves otherwise erratically, and the system unit is very quiet, the most likely cause is?
     A.   A virus has infected the system
     B.   The hard-drive is almost out of space
     C.   The CMOS RAM is failing
     D.   The power-supply fan has failed and the system is overheating   (2 marks)

7.   If a user wants to add another adapter card into a PC, the first concern would be?
     A.   Is the card a "Plug-and-Play" card?
     B.   Would there be enough hard-drive space for the driver-software for the card?
     C.   Would the power supply be able to provide enough power for the card?
     D.   Is there a vacant slot available for the card?   (2 marks)

8. A set of interrelated components that collect, manipulate, store and disseminate information to achieve a specific goal is referred to as?
   A. Integrated system
   B. Information system
   C. Database system
   D. Computer system   (2 marks)

9. What significance do the "beeps" have during the boot process of a PC?
   A. The number of beeps describe the quality of the processor
   B. The number of beeps describe the speed of the RAM Chips
   C. The number of beeps describe the overall condition of the PC's hardware
   D. You can tell how powerful the PC is by the loudness or intensity of the beeps   (2 marks)

10. Which of the following is the fourth step in the system integration process?
    A. Analysis of the gathered information
    B. Gathering information and planning
    C. Development
    D. User testing   (2 marks)

11. Which of the following **BEST** describes the relationship between a network Server and a network Client?
    A. A Server executes commands on a Client
    B. Servers control Distributed Area Value Independent Driver nodes and Clients control Critical Unified Resource Transfer stations
    C. A Server stores data and applications and may link one or more Clients together
    D. Clients generate checksum values that Servers use to verify the accuracy of data   (2 marks)

12. Passive electronic components consisting of two or more pieces of conducting material separated by an insulating material are known as:
    A. Capacitors
    B. Resistors
    C. Inductors
    D. Diodes   (2 marks)

13. Which of the following is the unit for measuring current in an electronic circuit?
    A. Volt
    B. Ampere
    C. Ohm
    D. Farad   (2 marks)

14. What does a fixed disk 0 error represent?
    A. A problem with the operating system
    B. A problem with CMOS
    C. A problem with the hard drive
    D. A problem with the floppy drive   (2 marks)

15. Which of the following is **NOT** categorised as information that you should be obtained before flashing the BIOS?
    A. Check to see which version of BIOS you have
    B. Check and write down the model number of your computer and other important information
    C. Check the manufacturer's website for updates on the version you have
    D. Always use third party software to flash your BIOS   (2 marks)

16. Which of the following **CANNOT** help in fixing intermittent PC problems?
    A. Perform a clean boot
    B. Use checksum utility
    C. Use system restore
    D. Use undo recent changes option   (2 marks)

17. A client complains that his DVD-ROM seems to vibrate and has a hard time playing his favorite DVD. What is the **MOST** likely problem?
   A. The DVD is defective
   B. The DVD-ROM's spindle is defective
   C. Defective DVD-ROM
   D. The tray on the DVD-ROM is defective (2 marks)

18. Firewalls are often configured to block all of the following **EXCEPT**?
   A. Block IP traffic
   B. Block FTP traffic
   C. Block UDP traffic
   D. Block TCP traffic (2 marks)

19. Which type of test is done on interrupt controller, timer and keyboard interface?
   A. Motherboard support chips
   B. CRT Controller, video buffer RAM
   C. Processor
   D. DMA (2 marks)

20. The device that can be used to measure resistance, voltage and current is known as:
   A. Oscilloscope
   B. Multimeter
   C. Logic Analyser
   D. Logic Probe (2 marks)

21. The safe and responsible use of information and communication technologies is referred to as:
   A. Cyber ethics
   B. Cyber safety
   C. Cyber security
   D. Computer ethics (2 marks)

22. Which of the following is the processor technology used to automatically slow down the computer so as to use less energy and conserve battery power?
   A. Overclocking
   B. Throttling
   C. Overheating
   D. Multi-core processing (2 marks)

23. The standard interface for connecting a motherboard to storage devices such as hard drives is referred to as:
   A. IDE
   B. ATA Ribbon
   C. SAPA
   D. SATA (2 marks)

24. The device used for checking short circuit or open circuit is known as:
   A. Oscilloscope
   B. Logic Analyzer
   C. Ohmmeter
   D. Logic Probe (2 marks)

25. Which of the following features provide a graphical view of the hardware that are installed on the computer?
   A. Devices Manager
   B. System Protection
   C. Action Center
   D. File History (2 marks)

26. What is the easiest way to correct a problem on a user's workstation?
   A. Reboot the computer
   B. Reinstall the OS
   C. Reconfigure the workstations hardware settings
   D. Create a new user profile (2 marks)

27. Which of the following is a Power On Self-Test (POST) output message?
    A. Audio codes
    B. Off-screen text messages
    C. Decimal numeric codes
    D. Video codes (2 marks)

28. Which of the following refers to verifying the identity of a user as a prerequisite to allowing access to resources in an information system?
    A. Configuration
    B. Accessibility
    C. Authentication
    D. Logging in (2 marks)

29. The mathematical technique used to validate the authenticity and integrity of a message, software or digital document is referred to as?
    A. Digital certificates
    B. Secure electronic transactions
    C. Digital signature
    D. Encryption (2 marks)

30. Which of the following can be classified as a cause of blue screen in computers?
    A. Faulty memory card
    B. Faulty software drivers
    C. Faulty printer software
    D. Faulty sound card (2 marks)

31. A network technician wants a server to have fault tolerance. Which of the following would be the **MOST** cost effective solution?
    A. Install two NICs for teaming
    B. Install two switches
    C. Install a single fiber NIC
    D. Install a single router (2 marks)

32. Marine's desktop has a dysfunctional USB port. Which of the following is the **BEST** solution that can fix this issue?
    A. Disable USB selective suspend
    B. Buy new USB devices
    C. Closed it up with a tape
    D. Run an antivirus software (2 marks)

33. Which of the following is a safe method of cleaning a computer monitor?
    A. Splash the screen with distilled water
    B. Spray cleaning fluid directly onto the screen
    C. Gently wipe the screen with the damp cloth
    D. Put the monitor in sink with running water and then wipe it dry (2 marks)

34. Gina Kangethe bought a new computer from a Dati Electronics dealers. The computer has some problems and is seeking your assistance. Which section of the company should she call to get support?
    A. Sales
    B. ICT Manager's office
    C. Help desk
    D. Logistics office (2 marks)

35. Which of the following is a human health problem associated with the use of computer equipment?
    A. Arthritis
    B. Loss of memory
    C. Stomach pains
    D. Stress and fatigue (2 marks)

36. The process of increasing the clock rate of a component, such as a CPU, beyond its default speed is known as?
    A.   Overpowering
    B.   Overclocking
    C.   Overflowing
    D.   Overlapping   (2 marks)

37. Which one of the following is **NOT** a keyboard port?
    A. USB
    B. Bluetooth
    C. Parallel
    D. Serial   (2 marks)

38. Which one of the following network cable types is **MOST** often used in environments where physical security of the data is the top priority?
    A.   STP
    B.   Fiber optic
    C.   Coaxial
    D.   UTP   (2 marks)

39. Which of the following is an example of a printer that provides printouts by printing head element coming into contact with the stationery against an inked ribbon?
    A.   Laser printer
    B.   InkJet printer
    C.   Thermal printer
    D.   Dot Matrix printer   (2 marks)

40. You have been invited to a small business using a wireless router running on an 802.11a standard. You notice the router is in one room and the access point is in another room about 100 feet away. The manager explain that they are having trouble connecting to the network. What is the problem?
    A.   The access point is defective
    B.   There is too much interference from outside machines
    C.   The router is defective
    D.   The router is too far away from the access point   (2 marks)

41. The computer program that is designed to replicate itself by copying itself into the other programs stored in a computer is known as?
    A.   Computer file
    B.   Computer virus
    C.   Computer worm
    D.   Computer software   (2 marks)

42. The emerging branch in computer science which interprets the means and methods of making computers think like human beings is referred to as:
    A.   Block chain
    B.   Virtual reality
    C.   Artificial intelligence
    D.   Cloud computing   (2 marks)

43. Which of the following describes the controls that monitor the system development process at various stages to ensure that the process is properly controlled and managed?
    A.   Software controls
    B.   Implementation controls
    C.   Administrative controls
    D.   Environmental controls   (2 marks)

44. Sally Juma complains that her laptop is overheating even though all the internal cooling systems are working properly. What suggestions could you make to her, that would help her situation?
    A.   Don't leave her laptop on for extended periods of time
    B.   Buy a cooling pad for laptops
    C.   Install a liquid cooling system
    D.   Buy a new laptop   (2 marks)

45. Release of message contents and traffic analysis are two types of which attack in computing?
    A. Passive
    B. Active
    C. Modification
    D. DoS   (2 marks)

46. Which of the following could be used to fix start up problem error in Windows?
    A. Use normal mode
    B. Use CMOS to change settings to default
    C. Use last known good configuration
    D. Use a bootable disk from an earlier version of you operating system   (2 marks)

47. When determining if the problem is related to hardware or software, which of the following is one of the most important questions to ask?
    A. Is the computer plugged in?
    B. What operating system are you using?
    C. Have you recently installed any new hardware or software?
    D. Does the monitor work?   (2 marks)

48. Which of the following represents a formal document created by an organisation that contains detailed instructions on how to respond to unplanned incidents such as power outages and cyber-attacks?
    A. Disaster recovery plan
    B. Backup recovery plan
    C. Remote recovery plan
    D. Cyber recovery plan   (2 marks)

49. When running disk management and receive this status message "online errors", it could mean?
    A. Disk operating normally
    B. The OS detected I/O errors with the disk
    C. Disk is functional but missing a valid signature
    D. The system recognises the disk as functional with a valid signature, but lacks a record of it   (2 marks)

50. Which of the following is **NOT** a method that can be used to dispose of e-waste?
    A. Landfilling
    B. Acid Bath
    C. Inclination
    D. Recycling   (2 marks)

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CISSE FOUNDATION LEVEL

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

MONDAY: 21 August 2023. Afternoon Paper. **Time Allowed: 2 hours.**

Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. This paper is made up of fifty (50) Multiple Choice Questions. Each question is allocated two (2) marks.

1. Which of the following would be a logical first step in troubleshooting a PC?
    A. Check the computer CMOS
    B. Define the circumstances of the problem
    C. Call the vendor
    D. Define what applications are being used (2 marks)

2. Which of the following **BEST** describes a fragmented hard drive?
    A. The platters are bad
    B. Data files are corrupted
    C. Clusters of data are damaged
    D. Files are not stored in consecutive clusters (2 marks)

3. Which of the following is **NOT** a benefit of integrating information systems?
    A. Improved decision-making
    B. Increased efficiency
    C. Improved customer service
    D. Reduced costs (2 marks)

4. What would you do first when troubleshooting a faulty monitor?
    A. Check its connections to the computer and power source
    B. Use a meter to check the CRT and internal circuitry for continuity
    C. Power down the monitor, then turn it on again to see if that corrects the problem
    D. Power down the computer, then turn it on again to see if that corrects the problem (2 marks)

5. What is the purpose of a service-level agreement (SLA) in information system support?
    A. To define the roles and responsibilities of system integrators
    B. To ensure compliance with industry regulations
    C. To establish performance targets and service expectations
    D. To outline the technical specifications of the integrated system (2 marks)

6. What is the first step in diagnosing a completely dead computer at the client's site that was working the day before?
    A. Test the power supply
    B. Replace the CMOS battery
    C. Check the AC outlet
    D. Reset the hard drive controller cable (2 marks)

7. The capability of a system to continue as if nothing happened after a major component failure is referred to as_____.
    A. Redundancy
    B. Interoperability
    C. Fault tolerance
    D. Backup (2 marks)

8. The processes and activities involved in providing assistance and maintenance to information systems within an organisation is referred to as:
   A. Computer repair
   B. Helpdesk support
   C. Information system management
   D. Information system support (2 marks)

9. Which of the following is an essential aspect of providing information system support?
   A. Regular system backups and disaster recovery planning
   B. Ignoring user feedback and suggestions
   C. Delaying software updates and patches
   D. Providing limited or no user training (2 marks)

10. Which of the following is a two-input logic gate whose output is high when the inputs are the same?
    A. AND
    B. NAND
    C. XOR
    D. XNOR (2 marks)

11. When an input signal of 0 is applied to a NOT gate, the output is?
    A. 0
    B. 1
    C. Either 0 & 1
    D. Neither 0 & 1 (2 marks)

12. Which of the following is **NOT** a safety precaution while using ICT tools?
    A. Secure loose clothing
    B. Cover sharp edges inside the computer case with tape.
    C. Turn on the power and unplug equipment before performing service.
    D. Never open a power supply unit (2 marks)

13. Which technology is used to increase the storage capacity of a computer memory?
    A. Magnetic tape
    B. Optical discs
    C. Hard disk drives
    D. Solid-state drives (2 marks)

14. Which of the following is **NOT** a way of making a computer laptop battery to last longer?
    A. Keep your laptop plugged in
    B. Keep your operating system up to date
    C. Adjust the brightness of your screen and screensaver
    D. Close any apps and programs you are not using (2 marks)

15. Which of the following is **NOT** a factor to consider when upgrading a computer?
    A. The speed of the processor
    B. The speed of the hard disk
    C. The size of memory
    D. The security of applications (2 marks)

16. What is the binary representation of the decimal number 10_{10}?
    A. 0010
    B. 0101
    C. 1010
    D. 1111 (2 marks)

17. Where does the motherboard store the keyboard controller support program?
    A. DRAM
    B. ROM chip
    C. SRAM
    D. Hard drive (2 marks)

18. Which component stores data in digital computers?
    A. Capacitor
    B. Resistor
    C. Inductor
    D. Transistor (2 marks)

19. Which of the following is a characteristic of a web-based service where the consumer of the web service is **NOT** tied to that web service directly?
    A. XML-Based
    B. Coarse-Grained
    C. Loosely Coupled
    D. Ability to be Synchronous (2 marks)

20. Which of the following is **NOT** a characteristic of Extensible Markup Language (XML)?
    A. XML is a private standard
    B. XML is extensible
    C. XML is a public standard
    D. XML carries the data and does not present it (2 marks)

21. An integrated set of components for collecting, processing, distributing and storing data is called_____.
    A. Computerised system
    B. Data system
    C. Information system
    D. Digital system (2 marks)

22. Which of the following **BEST** describes the characteristics of the information that is required by the lowest level managers in an organisation?
    A. It is sourced from internal sources, highly detailed and relevant to the long term
    B. It is sourced from external sources, highly summarised and relevant to the short term
    C. It is sourced from internal sources, highly detailed and relevant to the short term
    D. It is sourced from internal sources, highly summarised and relevant to the long term (2 marks)

23. The type of help desk that allows developers to access its source code thus easily modify or enhance the software based on the help desk needs of your business is called_____.
    A. Open-source help desk
    B. Self-hosted help desk
    C. Cloud-based help desk
    D. Enterprise help desk (2 marks)

24. Which of the following is **NOT** an element of information system?
    A. Hardware
    B. Software
    C. People
    D. Infrastructure (2 marks)

25. The characteristic of an information which states that it should have minimal failure rates is referred to as_____.
    A. Accuracy
    B. Reliability
    C. Timeliness
    D. Cost effectiveness (2 marks)

26. The type of system integration that simplifies the global architecture, enables communication of many applications and guarantees a high level of security is referred to as_____.
    A. Enterprise application integration
    B. Data integration
    C. Electronic document integration
    D. Digital document integration (2 marks)

27. Which of the following is **NOT** a tool that can be used to provide information systems support?
    A. Help-desk software
    B. Knowledge management system
    C. Training materials
    D. Performance monitoring tools   (2 marks)

28. The type of main memory storage required for saving large amount of data for future reference is called_____.
    A. Internal Storage
    B. Minor Devices
    C. Primary Storage
    D. Virtual Storage   (2 marks)

29. Which type of testing focuses on ensuring that the integrated system functions as expected?
    A. Unit testing
    B. Regression testing
    C. Integration testing
    D. Performance testing   (2 marks)

30. Which of the following is a set of hardware components on the motherboard that manages platform specific functions such as monitoring and handling certain environmental error conditions?
    A. Baseboard Management Controller (BMC)
    B. Corrected Machine Check (CMC)
    C. Corrected Platform Error (CPE)
    D. Advanced Configuration and Power Interface (ACPI)   (2 marks)

31. What is the role of a help desk in information systems support?
    A. Developing software applications
    B. Managing data backups and recovery processes
    C. Providing technical support and assistance to users
    D. Monitoring system performance and security   (2 marks)

32. _____ is a system utility used to troubleshoot the Microsoft Windows startup process.
    A. Startup manager
    B. Ping
    C. MSCConfig
    D. PertMon   (2 marks)

33. Which of the following units is responsible for giving the results in a user-understandable format?
    A. Input unit
    B. Output unit
    C. Memory unit
    D. Arithmetic & logic unit   (2 marks)

34. Which of the following is a primary objective of information system support and integration?
    A. Increasing system complexity
    B. Minimising system downtime
    C. Restricting data accessibility
    D. Reducing user training   (2 marks)

35. What is the purpose of backup and recovery in ICT support services?
    A. To recover data in case of data loss or system failure
    B. To prevent unauthorised access to data
    C. To optimise network performance
    D. To ensure software license compliance   (2 marks)

36. Which of the following is **NOT** a feature that affects the processor performance?
    A. System bus speeds the processor supports
    B. Processor core frequency
    C. Motherboard configuration
    D. Motherboard socket and chipset   (2 marks)

37. Which of the following is an example of software troubleshooting?
    A.   Replacing a faulty hard drive
    B.   Upgrading the computer's memory
    C.   Installing antivirus software
    D.   Configuring a network router   (2 marks)

38. Which number system uses the digits 0-9 and the letters A-F to represent numbers?
    A.   Binary number system
    B.   Octal number system
    C.   Hexadecimal number system
    D.   Decimal number system   (2 marks)

39. Which of the following refers to the practice of collecting, organizing, protecting and storing an organisation's data?
    A.   Information management
    B.   File management
    C.   Data management
    D.   Folder management   (2 marks)

40. Which of the following best describes Level 1 support?
    A.   Basic user assistance and issue triage
    B.   Advanced technical troubleshooting
    C.   Hardware repair and replacement
    D.   Network infrastructure configuration   (2 marks)

41. Which of the following is a data backup that copies all of the files that have changed since the last full backup was performed?
    A.   Differential backup
    B.   Full backup
    C.   Incremental backup
    D.   Complete backup   (2 marks)

42. Which of the following is an act of performing regularly scheduled maintenance activities to help prevent unexpected failures in the future?
    A.   Adaptive maintenance
    B.   Perfective maintenance
    C.   Preventive maintenance
    D.   Corrective maintenance   (2 marks)

43. Which of the following is a cybersecurity practice where codes are run or files are opened in a safe, isolated environment on a host machine that mimics end-user operating environments?
    A.   Sandboxing
    B.   Hyperscale network security
    C.   Cloud network security
    D.   Network segmentation   (2 marks)

44. Convert $(11010)_2$ to its decimal equivalent
    A.   32
    B.   31
    C.   26
    D.   30   (2 marks)

45. What is the purpose of a firewall in computer support?
    A.   Managing computer hardware resources
    B.   Encrypting data transmissions
    C.   Blocking unauthorised network access
    D.   Troubleshooting software issues   (2 marks)

46.   Which of the following is **NOT** a typical function of an ICT help desk?
        A.   Troubleshooting and resolving technical issues
        B.   Providing software development services
        C.   Handling user inquiries and support requests
        D.   Monitoring and managing IT systems   (2 marks)

47.   Which term refers to the practice of ensuring that data is kept confidential and protected from unauthorized access?
        A.   Firewalling
        B.   Intrusion detection
        C.   Encryption
        D.   Backup and recovery   (2 marks)

48.   What is the purpose of device drivers in computer support?
        A.   Providing security updates
        B.   Managing computer peripherals
        C.   Monitoring network traffic
        D.   Optimising computer performance   (2 marks)

49.   Which technology is commonly used to describe the structure and format of data that is exchanged in web services?
        A.   HTML
        B.   JSON
        C.   CSS
        D.   XML   (2 marks)

50.   What does ESD stand for in the context of computer assembly?
        A.   Electronic system design
        B.   Electrostatic discharge
        C.   External storage device
        D.   Efficient software development   (2 marks)

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CISSE FOUNDATION LEVEL

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

MONDAY: 24 April 2023. Afternoon Paper.   **Time Allowed: 2 hours.**

Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. This paper is made up of fifty (50) Multiple Choice Questions. Each question is allocated two (2) marks.

1. Which of the following is basically **NOT** an external component of a computer?
   - A. Monitor
   - B. Hard disk
   - C. Keyboard
   - D. Printer

2. Which of the following components can amplify the signal from an output device?
   - A. Transistor
   - B. Resistor
   - C. Rectifier
   - D. Transformer

3. _____is used to read XML documents and provide access to their content and structure.
   - A. XML Processor
   - B. XML Pre-processor
   - C. XML Compiler
   - D. XML Interpreter

4. Which of the following is **NOT** a safety tip while using a computer?
   - A. Do not save your login information
   - B. Do not leave the computer unattended with sensitive information on the screen
   - C. Do not erase your tracks
   - D. Disable the feature that stores passwords

5. To break down a computer into separate parts is referred to as?
   - A. Assembly
   - B. Disassembly
   - C. Put together
   - D. Rebuild

6. Which of the following can be classified as an electrostatic discharge tool?
   - A. Anti-static mat
   - B. Static mat
   - C. Diagnostic tool
   - D. Cleaning tool

7. Which of the following XLink attribute defines the Uniform Resource Locator (URL) to link to?
   - A. xlink:path
   - B. xlink:url
   - C. xlink:src
   - D. xlink:href

8. Which of the following is **NOT** a method that can be used to dispose off e-waste?
   A. Landfilling
   B. Acid Bath
   C. Incineration
   D. Recycling

9. Which of the following is part of e-waste management R's?
   A. Reduce
   B. Reproduce
   C. Repack
   D. Retrieve

10. Which of the following is **NOT** an advantage of online support?
   A. Log on any time
   B. Reduces loneliness and isolation
   C. Ability to talk openly about feelings or experiences
   D. Potential greater flexibility

11. Which of the following **BEST** defines the term troubleshooting?
   A. Checking connections and reviewing error messages
   B. Responding to questions posed by tech support
   C. A systematic way of diagnosing a complex problem
   D. A simple way of diagnosing a complex problem

12. What is the significance of "beeps" during the boot up process of a PC?
   A. You can tell how powerful the PC is by the loudness or intensity of the beeps
   B. The number of beeps describe the speed of the RAM Chips
   C. The number of beeps describe the overall condition of the PC's hardware
   D. The number of beeps describe the quality of the processor

13. Which of the following is **NOT** one of the three main components in a decision support system?
   A. Model
   B. Communications
   C. Data
   D. Dialogue

14. The processor characteristic that offers some protection against overheating is referred to as:
   A. Firmware
   B. Overclocking
   C. Multiprocessing
   D. Throttling

15. An error message "Invalid drive configuration" is displayed during the booting process of a computer. What is likely to be the problem?
   A. The hard drive has not been partitioned
   B. The hard drive cylinder is faulty
   C. The hard drive power cable within the system unit is faulty
   D. The hard drive is not properly connected

16. An error message "Keyboard error" is likely to be as a result of?
   A. The keyboard is not attached to the PC
   B. The keyboard has failed
   C. The keyboard is not attached to the PC or the keyboard has failed
   D. The keyboard is attached to the PC or the keyboard has failed

17. An organisation's printer is not working. Which of the following is **NOT** a common solution to the problem?
   A. Push the Ctrl, Alt, and Delete keys at the same time. Then, start the Task Manager, highlight the program's name, and hit the End Task button
   B. Check if the printer is turned on. If not, turn it on and try again
   C. Check if the printer has paper. If not, put paper in the paper tray and try printing again
   D. Check if the printer has a paper jam. If so, remove the paper, close the printer, and try printing again

18. In case of computer failure, a log of each transaction can be recovered from which of the following storage?
   A. Stable
   B. Unstable
   C. Recovery
   D. System

19. Which of the following is **NOT** a help desk management best practice?
   A. Develop a culture of helping
   B. Offer an inference engine
   C. Hire good employees
   D. Customise your work environment

20. Which of the following is **NOT** a reason for ICT staff training?
   A. Improves overall job performance
   B. Improves productivity at the work place
   C. Supports the development of computer skills
   D. Supports the development of non-computing skills

21. All logs are created and stored in _____ storage when the deferred database method is used, and data is synced to the database when a transaction commits.
   A. Stable
   B. Unstable
   C. System
   D. Recovery

22. To improve the efficiency and performance of a driver you need to _____ the driver.
   A. Uninstall
   B. Update
   C. Hide
   D. Use

23. Which of the following best describes a security threat that involves use of emails to induce individuals to reveal personal information such as passwords?
   A. Phishing
   B. Denial of service
   C. Eavesdropping
   D. Spoofing

24. _____ enables you to use previous version of driver when the driver you are using causes system instability.
   A. Plug and Play
   B. Device Manager
   C. Driver
   D. Driver Rollback

25. The _____ utility allows you to manage disks, volumes and partitions of your system from the command prompt.
   A. Disk Management
   B. Disk Portioning
   C. Device Manager
   D. Disk Defragmenter

26. Which of the following refers to exploring the appropriate, ethical behaviors related to the online environment and digital media platform?
   A. Cyber low
   B. Cyber ethics
   C. Cyber security
   D. Cyber safety

27. The type of computer control that applies to all computerised applications and consist of a combination of hardware, software and manual procedures that creates an overall control environment is referred to as:
    A.   Physical control
    B.   General control
    C.   Application control
    D.   Logical control

28. Which of the following best describes the commissioning of illegal acts through the use of a computer system?
    A.   Computer abuse
    B.   Computer crime
    C.   Computer misuse
    D.   Computer hacking

29. When there is a glare on the computer screen, which one of the following describes what a computer user should do?
    A.   Try not to look at the glare
    B.   Close the binds or drop them
    C.   Do something that does not involve a computer
    D.   Change the brightness of the computer

30. Which one of the following principles of cyber security recommends that the security mechanism must be as small and simple as possible?
    A.   Open-Design
    B.   Economy of the Mechanism
    C.   Least privilege
    D.   Fail-safe Defaults

31. Which of the following is **NOT** a type of backup in computers?
    A.   Full backup
    B.   Incremental backup
    C.   Differential backup
    D.   Half backup

32. Which of the following data storage statements is **FALSE**?
    A. The more important the data, the greater the need for backing it up
    B. A backup is as useful as its associated restore strategy
    C. Storing the backup copy near to its original site is best strategy
    D. Automated backup and scheduling is preferred over manual operations

33. The type of information that enables middle level managers to make decisions is referred to as:
    A.   Tactical information
    B.   Strategic information
    C.   Operational information
    D.   Middle information

34. The characteristic of information that deals with the objectivity with which it is presented is referred to as:
    A.   Timeliness
    B.   Reliability
    C.   Relevance
    D.   Accuracy

35. Which of the following qualifies as best disaster recovery (DR) site?
    A.   DR site in the same campus
    B.   DR site in the same city
    C.   DR site in the same country
    D.   DR site in a different country

36. The logic gate whose output is high if all inputs are low is referred to as:
    A.   AND gate
    B.   OR gate
    C.   NAND gate
    D.   NOR gate

37. Which of the following number systems has a base or radix of 2:
    A. Binary
    B. Decimal
    C. Hexadecimal
    D. Octal

38. Which of the following is **NOT** a feature of eXtensible Markup Language (XML)?
    A. XML simplifies platform changes
    B. XML simplifies data availability
    C. XML simplifies data integrity
    D. XML simplifies data transport

39. Which of the following techniques can be used for optimising backed up data space?
    A. Encryption and Deduplication
    B. Compression and Deduplication
    C. Authentication and Deduplication
    D. Deduplication only

40. Which of the following is a Power – on - Self-Test (POST) output message?
    A. HTML codes
    B. Onscreen text messages
    C. Decimal numeric codes
    D. Video codes

41. The process of joining software and hardware modules into one cohesive infrastructure is referred to as:
    A. System architecture
    B. System integration
    C. Software architecture
    D. Enterprise integration

42. Which of the following refers to the set of routines performed by firmware immediately after a computer is powered on?
    A. Disk routines
    B. POST routines
    C. PAST routines
    D. Memory routines

43. Poorly designed, and frustrating software can contribute to_____.
    A. Stress
    B. Eye Strain
    C. Back Ache
    D. Upper Limb Disorder

44. The type of system integration that takes information from the on-premises systems and leverages new systems in order to drive the business is referred to as?
    A. Legacy integration
    B. Application integration
    C. Enterprise integration
    D. Software integration

45. Which step is followed for treating a person from electric shock?
    A. Provide water
    B. Keep the victim cold
    C. Cover the victim with a coat
    D. Move the victim to a ventilated place

46. The type of system integration where a type of software facilitates communication between legacy systems and updated ones to expedite integration is referred to as:
    A. Manual data integration
    B. Middleware data integration
    C. Application-based integration
    D. Uniform access integration

47.   Which of the following is a feature that affects the processor performance.
        A.   Address bus speeds the processor supports
        B.   Processor core frequency
        C.   Memory socket and chipset
        D.   Multitasking ability

48.   Which of the following is **NOT** a symptom of failing motherboard or processor?
        A.   System begins to boot, then powers down
        B.   Error message displayed during boot
        C.   System unstable, hangs, freezes at odd times
        D.   Intermittent antivirus errors occur

49.   Which of the following is **NOT** a symptom of a computer virus infection?
        A.   The size of the file increases
        B.   Programs takes too long to load into memory
        C.   Files are marked as read only
        D.   Overheating computer system

50.   From the options below, which of them is **NOT** a vulnerability to information security?
        A.   Flood
        B.   Not deleting data or disposal of storage media
        C.   Unchanged default password
        D.   Latest patches and updates not done

………………………………..……………………………………..

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CISSE FOUNDATION LEVEL

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

MONDAY: 5 December 2022. Afternoon Paper.   **Time Allowed: 2 hours.**

Answer ALL questions by indicating the letter (A, B, C or D) that represents the correct answer. This paper is made up of fifty (50) Multiple Choice Questions. Each question is allocated two (2) marks.

1.   The component of the central processing unit that fetches data from the main memory and executes the data is referred to as?
      A.   Input unit
      B.   Control unit
      C.   Main memory unit
      D.   Arithmetic and logic unit

2.   The device that converts the AC power to DC power is referred to as?
      A.   Rectifier
      B.   Transformer
      C.   Transistor
      D.   Resistor

3.   Which of the following logic gates will give a high output when either or all the inputs are high?
      A.   AND
      B.   OR
      C.   NOT
      D.   NAND

4.   Which of the following is **NOT** a safety precaution to be observed when using a computer laptop?
      A.   Periodically check the laptop battery for its performance
      B.   Keep the laptop in a well ventilated area
      C.   Use the laptop in DC with battery removed
      D.   Keep all liquids away from the laptop

5.   Which of the following is **NOT** a type of electronic waste?
      A.   Fridges
      B.   Computer monitor
      C.   Solar panel
      D.   Window panel

6.   All of the following are tools needed for assembling a computer **EXCEPT?**
      A.   Screwdriver
      B.   Cable ties
      C.   Static kit
      D.   Heat sink compound

7.   Which of the following is a standard interface for IBM computers that was first developed by Western Digital and Compaq in 1986 for compatible hard drives and CD or DVD drives?
      A.   ATA Ribbon
      B.   SCSI
      C.   SATA
      D.   IDE

8.   Which is the computer generation whose circuit design is based on the large-scale integration (LSI) and very large-scale integration (VLSI) of IC circuitry and its microprocessor combined all the circuitry of the control unit and Arithmetic and logic unit (ALU) on a single chip?
        A.   Second generation
        B.   First generation
        C.   Fourth generation
        D.   Fifth generation

9.   Printers that provide relatively poor-quality printouts by their printing head element coming into contact with the stationery against an inked ribbon are referred to as:
        A.   Non-impact printers
        B.   Poor quality printers
        C.   Impact printers
        D.   Line printers

10.   Which of the following is a permanent memory that stores instructions and data required for booting the computer system?
        A.   Read only memory
        B.   Registers
        C.   Random Access Memory
        D.   Cache Memory

11.   Which type of motherboard includes advanced control facilities, where the BIOS program continually checks the CPU temperature and voltages, the cooling fans RPM, among others?
        A.   Mini-ITX
        B.   ATX
        C.   Micro-ATX
        D.   STX

12.   The software that provides basic machine instructions to allow the hardware to function and communicate with other software running on a device is known as?
        A.   Assembly language programs
        B.   Firmware
        C.   Liveware
        D.   Flowchart instructions

13.   The process of joining software and hardware modules into one cohesive infrastructure, enabling all pieces to work as a whole is called?
        A.   Software architecture
        B.   Enterprise integration
        C.   System architecture
        D.   System integration

14.   The process of starting a computer that is off by pressing the on-off switch is known as?
        A.   White booting
        B.   Black booting
        C.   Cold booting
        D.   Warm booting

15.   The moral rules or code of behavior applied to the online environment is referred to as?
        A.   Normative ethics
        B.   Cyber ethics
        C.   Cyber security
        D.   Summative ethics

16.   Which of the following computer memories can be classified as volatile?
        A.   Hard disk
        B.   Flash disk
        C.   RAM
        D.   ROM

17. Which of the following is **NOT** a cause of hard disk errors?
   A. Power outages
   B. Software failures
   C. Poor system maintenance
   D. Computer virus

18. Which of the following terms **BEST** describes the systematic approach to problem solving that is often used to find and correct issues with complex machines, electronics and computers?
   A. Diagnostics
   B. Troubleshooting
   C. Fault analysis
   D. Problem solving

19. A malfunction that occurs when data is being accessed from memory for use by a program is known as?
   A. Memory write
   B. Memory read
   C. Hard disk write
   D. Hard disk read

20. Which of the following is the utility that allows computer users to edit, delete, zip, upload, download and copy files?
   A. Disk manager
   B. File editor
   C. File manager
   D. Disk editor

21. Which of the following cannot be classified as a monthly disk maintenance activity?
   A. Check for and install any operating system updates.
   B. Empty the Recycle Bin.
   C. Backup any data or important files.
   D. Delete all temporary files

22. Which of the following is a Power- on Self-Test (POST) message?
   A. Off screen text messages.
   B. Audio codes.
   C. Octal numeric codes.
   D. Data codes

23. Which of the following is the process that communicates with different services, gathers data and proceeds with further steps based on the desired action?
   A. Electronic data interchange
   B. Data integration
   C. Enterprise application integration.
   D. Electronic application integration.

24. Which of the following is the correct binary equivalent of the octal code 7623?
   A. 111110010011
   B. 110111010011
   C. 101011110111
   D. 011010110111

25. The process of removing errors in a software code is called?
   A. Testing
   B. Debugging
   C. Loading
   D. Compiling

26. A group of 8 binary digits operated as a unit is referred to as:
   A. A byte
   B. A block
   C. A bit
   D. A nibble

27. Which of the following is the extension of a file created using Adobe reader
   A.   .txt
   B.   .xls
   C.   .pdf
   D.   .bmp

28. Which of the following is **NOT** a security goal that organisations must endeavour to achieve in order to retain a competitive advantage?
   A.   Confidentiality
   B.   Integrity
   C.   Accessibility
   D.   Availability

29. _____ devises plans for the restoration of computing and communications services after they have been disrupted by an event such as an earthquake, flood, or terrorist attack.

   A.   Business continuity planning
   B.   Disaster recovery planning
   C.   Data continuity planning
   D.   Troubleshooting

30. Which of the following can be classified as an integration strategy for integrating applications?
   A.   Vertical integration
   B.   Flat integration
   C.   Block integration
   D.   Fixed integration

31. Which type of maintenance involves changing a system with reference to a change in its functional environment?
   A.   Preventive
   B.   Perfective
   C.   Corrective
   D.   Adaptive

32. What type of injury is caused by repeated use of a body part, such as your shoulder, elbow, forearm, wrist or hand?
   A.   Repetitive eye injury
   B.   Repetitive stress injury
   C.   Repetitive body injury
   D.   Repetitive elbow injury

33. Which of the following is **NOT** a symptom of failed computer memory?
   A.   Black screen
   B.   Random rebooting
   C.   Distorted graphics on the computer screen
   D.   Failure of the computer to boot

34. Which of the following is a symptom of failed microprocessor?
   A.   Loss of stored data
   B.   Computer freezes
   C.   Distorted graphics on the computer screen
   D.   Blank screen

35. Which of the following will indicate an error with an error code on screen?
   A.   1 short beep
   B.   2 short beeps
   C.   3 short beeps
   D.   4 short beeps

36. In software development and software engineering, to modify the software, to fix bugs, add features or improve performance is referred to as?
   A.   Software updating
   B.   Software upgrading
   C.   Software maintenance
   D.   Software modification

37. What is defined as a series of stages that are interrelated and provide several cyclic iterations?
   A.   Application model
   B.   Software model
   C.   System model
   D.   Maintenance model

38. Which of the following is a symptom of software that is **NOT** working properly?
   A.   Software frequently restarting
   B.   Software producing incorrect answers
   C.   Software errors
   D.   Software not loading

39. Over a period of time, data on the disk gets disjoint and this slows down disk performance. Which of the following program in an operating system should be run regularly to avoid this problem?
   A.   Disk clean up
   B.   Disk formatter
   C.   Disk manager
   D.   Disk defragmenter

40. A_____ error code means that the self-test did not complete due to a timeout.
   A.   Memory
   B.   Hard drive
   C.   Processor
   D.   Expansion card

41. Which of the following is used to establish a barrier between the internal network and incoming traffic from external sources in order to block UDP traffic and malicious traffic like viruses and hackers?
   A.   Protocol
   B.   Firewall
   C.   Device driver
   D.   Digital signature

42. Which of the following is a component of the central processing unit (CPU) that transmits the location of stored information?
   A.   Control bus
   B.   Data bus
   C.   Address bus
   D.   Memory bus

43. Which of the following type of computers was characterised by fast processing speeds and parallel processing?
   A.   Mainframe computer
   B.   Supercomputer
   C.   Mini computer
   D.   Microcomputer

44. Which of the following software utility scans and removes bothersome and malicious adware, tracking cookies, Trojans, malware, spyware and keyloggers from an infected computer?
   A.   Anti-adware
   B.   Anti-virus
   C.   Anti-spyware
   D.   Spam blocker

45. The following printers use either a toner or ink while printing **EXCEPT**?
    A. Impact
    B. Inkjet
    C. Laser
    D. Thermal

46. Which of the following is computing device feature that allows users to control the amount of electrical power consumed by an underlying device, with minimal impact on performance?
    A. Power Management
    B. Disk Defragmenter
    C. Disk compression
    D. Uninterruptible power supply

47. Which of the following BEST describes when antistatic devices should be used?
    A. Replacing hardware.
    B. Lifting heavy equipment.
    C. Updating software.
    D. Cooling equipment.

48. Which one of the following markup language was developed to make html more extensible and increase inter-operability with other data?
    A. XTML
    B. XHTML
    C. XML
    D. HTML

49. In which of the following network cable would RJ-45 connector be found?
    A. Coaxial
    B. USB
    C. UTP
    D. Fiber

50. Which of the following computer ports allows a PC to transmit or receive data one bit at a time?
    A. Parallel
    B. Serial
    C. USB
    D. VGA

……………………………………..………………………………………..

CISSE FOUNDATION LEVEL

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

MONDAY: 1 August 2022. Afternoon paper.   **Time Allowed: 2 hours.**

Answer ALL questions.   **Each question is allocated two (2) marks.**

1.   The type of computer memory used to quickly accept, store and transfer data and instructions that are being used immediately by the CPU is referred to as_____
     A.   Register
     B.   Encoder
     C.   Decoder
     D.   Flip flop

2.   _____ is a general term used to describe the pain felt in muscles, nerves and tendons caused by repetitive movement and overuse
     A.   Repeated Standing Injury
     B.   Repetitive Standing Injury
     C.   Repetitive Strain Injury
     D.   Real Strain Injury

3.   _____occurs when Windows encounters a critical error that stops the operating system from running.
     A.   Grey screen
     B.   Blue screen
     C.   Yellow screen
     D.   Black screen

4.   The component of the central processing unit that fetches data from the main memory and executes the data is referred to as?
     A.   Input unit
     B.   Control unit
     C.   Main memory unit
     D.   Arithmetic and logic unit

5.   _____ is a smaller motherboard that saves space and energy and is generally cheaper
     A.   Micro-ATX
     B.   Mini-ATX
     C.   ATX
     D.   Mega-ATX

6.   The process of dividing a disk into sectors that the disk controller can read and write, before a disk can store data is known as _____
     A.   partitioning
     B.   swap space creation
     C.   low-level formatting
     D.   high-level formatting

7.   Which of the following is **NOT** a role of passwords as used in computing?
     A.   To authorise access to a resource.
     B.   To make efficient use of time
     C.   To retain confidentiality of files
     D.   To differentiate an authorised user from an unauthorised user

8. _____ is a process of monitoring and capturing all data packets passing through given network
   A. Spamming
   B. Jamming
   C. Sniffing
   D. Phishing

9. A high-speed digital interface between a display controller like a computer and a display device like a monitor is referred to as _____
   A. Digital Video Interface (DVI)
   B. High Definition Media Interface (HDMI)
   C. Industry Standard Architecture (ISA)
   D. Enhanced Industry Standard Architecture (EISA)

10. _____ is a type of software that is etched directly into a piece of hardware and operates without going through APIs, the operating system, or device drivers
    A. Software driver
    B. Assembler
    C. Firmware
    D. Spyware

11. State the type of computer bus architecture used to transfer data between devices that are identified by the hardware address of the physical memory.
    A. Address bus
    B. Data bus
    C. System bus
    D. Processor bus

12. Which of the following is **NOT** a symptom of failed operating system?
    A. Failure of the computer to boot.
    B. Improper shutdown
    C. Missing DDL Information.
    D. Services fail to start

13. _____ is an onboard, battery powered semiconductor chip inside computers that stores information such as system time, date and system hardware settings for the computer.
    A. POST
    B. CMOS
    C. RAM
    D. BIOS

14. Which of the following is an example of external computer component?
    A. Expansion card
    B. Hard disk
    C. Flash disk
    D. Memory card

15. _____ is an electrical device that converts alternating current (AC) which periodically reverses direction to direct current (DC) which flows in only one direction
    A. Inverter
    B. Rectifier
    C. Transistor
    D. Converter

16. Which of the following is a temporary storage location inside the computer central processing unit (CPU) that stores data and addresses?
    A. Control unit
    B. Arithmetic and logic unit
    C. Register
    D. Input/Output unit

17. Which of the following is **NOT** a feature that affects the processor?
   A. System bus speeds the processor supports
   B. Processor core frequency
   C. Motherboard socket and chipset
   D. Multitasking ability

18. A technician is cleaning up a warehouse and has several old Cathode Ray Tube (CRT) monitors and UPS units. The technician removes the batteries from the UPSs and wants to comply with proper disposal techniques. Which of the following should the technician do next to proceed with disposal of the batteries?
   A. Review the material safety data sheet.
   B. Refer to the manufacturer's specific usage.
   C. Place securely in trash receptacles.
   D. Conduct an Internet search of disposal techniques.

19. _____ is a system utility used to troubleshoot the Microsoft Windows startup process
   A. Startup manager
   B. Ping
   C. MSConfig
   D. PerfMon

20. Which of the following is **NOT** a type of hard disk interface?
   A. EIDE
   B. ATA Ribbon
   C. SCSI
   D. SATA

21. Which of the following is **NOT** a symptom of failing motherboard or processor?
   A. System begins to boot, then powers down
   B. Error message displayed during boot
   C. System unstable, hangs, freezes at odd times
   D. Intermittent antivirus errors occur

22. Which of the following two input logic gates will give a high output when all the inputs are different?
   A. AND
   B. XNOR
   C. XOR
   D. NOT

23. _____ is an instrument that can measure quantities such as voltage, current and resistance
   A. Voltmeter
   B. Ammeter
   C. Digital multimeter
   D. Logic analyzer

24. _____ is the basic building block of any digital system
   A. Logic symbol
   B. Logic gate
   C. Flip flop
   D. Truth table

25. The type of volatile memory, which is used for extremely fast access of information that has already been previously accessed from the main memory is known as?
   A. Main memory
   B. Cache memory
   C. Read only memory
   D. Random access memory

26. The type of memory that stores data bits as electrical charges within the structure of a single transistor is called?
   A. DRAM
   B. SRAM
   C. EPROM
   D. PROM

27. Which of the following is **NOT** a precaution for installing computer memory?
   A. Avoid mixing RAM from various suppliers
   B. Buy standard RAM from a supplier you trust.
   C. The modules do not have to match the motherboard
   D. The frequency of added memory should be matching the CPU and Buses speed.

28. Which of the following computer components can be upgraded?
   A. Random Access Memory
   B. Mouse
   C. Keyboard
   D. Motherboard

29. _____ is an Intel chipset that communicates with the computer processor and controls interaction with memory, the Peripheral Component Interconnect (PCI) bus, Level 2 cache and all Accelerated Graphics Port (AGP) activities.
   A. Westbridge
   B. Northbridge
   C. Southbridge
   D. Eastbridge

30. _____ is the type of backup that makes a copy of files that have changed since the last backup.
   A. Differential backup
   B. Incremental backup
   C. Complete backup
   D. Full backup

31. Which choice below represents the second step in creating a business continuity plan?
   A. Assemble a business continuity management team
   B. Understand the risks
   C. Implement recovery strategies
   D. Ensure the safety and wellbeing of your employees

32. _____ is an integrated set of components for collecting, storing, and processing data and for providing information, knowledge, and digital products.
   A. Data system
   B. Digital system
   C. Information system
   D. Computerized system

33. Which of the following is **NOT** an example of tacit knowledge?
   A. Being able to identify the exact moment a prospect is ready to hear your sales pitch
   B. Knowing just the right words to use within your copy to attract and engage your audience
   C. Knowing which specific piece of content to deliver to a customer based on their expressed needs
   D. Being able to communicate organizational knowledge more effectively

34. A computer system displays an error message "application is running slowly". Which of the following is the possible solution to the error?
   A. Update the application
   B. Restart the computer
   C. Force quit the application
   D. Restart Windows Explorer

35. If the mouse pointer is moving intermittently on the screen but has not failed altogether, which of the following troubleshooting steps should you take?
   A. Check its connection to the port.
   B. Clean the mouse.
   C. Reinstall the drivers.
   D. Check for a conflict with the modem.

36. All programs on the computer are running slowly. Which of the following is **NOT** a possible solution?
   A. Run a virus scanner
   B. Try deleting any files or programs that are not needed.
   C. Run Disk Defragmenter program.
   D. Run chkdsk program.

37. You have been tasked with diagnosing a laptop that is experiencing heavy artifact corruption along with random loss of video during operation. What is the most likely cause to the problem?
   A. The BIOS is under clocking the video card
   B. Incompatible or untested video drivers were installed
   C. Video drivers were not installed directly from Microsoft update
   D. The BIOS is not set for proper video chipset temperature

38. What is the term that relates to weakness exhibited in system or network?
   A. Threat
   B. Attack
   C. Vulnerability
   D. Exploit

39. Which of the following is **NOT** a Power – on - Self-Test (POST) output message?
   A. Audio codes
   B. On-screen text messages
   C. Decimal numeric codes
   D. Hexadecimal numeric codes

40. Which one of the following is a program designed to help computer users detect virus and avoid them?
   A. Spyware
   B. Malware
   C. Spyware
   D. Antivirus

41. _____ can be defined as the usage of Information and Communication Technology (ICT) by the government to provide and facilitate government services, exchange of information, communication transactions and integration of various standalone systems and services.
   A. E-governance
   B. M-governance
   C. E-commerce
   D. M-commerce

42. Manipulating the environment and equipment involved when using a computer to suit the user is referred to as?
   A. Software patching
   B. Ergonomics
   C. Typology
   D. Phishing

43. Which of the following adheres to the principle of keeping sensitive information highly classified?
   A. Integrity
   B. Maintainability
   C. Confidentiality
   D. Availability

44. Which of the following would be the **BEST** way to fix a windows start-up problem?
   A. Use safe mode
   B. Use BIOS to change settings to default
   C. Restarting the computer
   D. Use a bootable disk from a later version of your operating system

45. Information that is sourced from internal sources, highly detailed and relevant in the short term is referred to as_____.
   A. Strategic information
   B. Tacit information
   C. Tactical information
   D. Operational information

46.   Which of the following is **NOT** a method of safely disposing electronic waste?
    A.   Donating the outdated technology
    B.   Sell off the outdated technology
    C.   Give the electronic waste to a certified e-waste recycler
    D.   Buying e-waste machines

47.   Study the figure below. Indicate which input device is shown
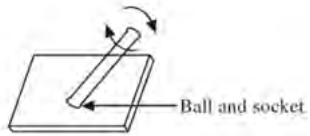
    A.   Mouse
    B.   Joystick
    C.   Light pen
    D.   Keyboard

48.   Which one of the following is **NOT** one of the major data processing functions of a computer?
    A.   Data gathering
    B.   Processing data into information
    C.   Analysing the data or information
    D.   Storing the data or information

49.   All the following are examples of data real security and privacy risks **EXCEPT**?
    A.   Hackers
    B.   Spam
    C.   Viruses
    D.   Identity theft

50.   The utility that allows the computer to start up more quickly because the user won't have to wait for the operating system and applications to load is referred to as?
    A.   Sleep mode
    B.   Restart mode
    C.   Hibernate mode
    D.   Start mode

....

CERTIFIED INFORMATION SYSTEMS SOLUTIONS EXPERT (CISSE)

FOUNDATION LEVEL

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

TIME: 3 HOURS

INSTRUCTIONS: ANSWER ALL QUESTIONS.

QUESTION 1
In the list below, what would be the first logical step when troubleshooting a computer?
- A. Call the vendor
- **B. Define the circumstances of the problem**
- C. Check the computer CMOS
- D. Define what applications are being used

QUESTION 2
Mr. Tekino while working on a client's computer saw the message "invalid media device" after installing a new hard drive. Advise him on the best action to take.
- A. Add operating system to the hard drive
- B. Compress the hard drive
- C. Partition the hard drive
- **D. Format the hard drive**

QUESTION 3.
_____ is suitable to clean different components of a computer without leaving scratches or debris.
- **A. Soft cloth**
- B. Cable ties
- C. Compressed air
- D. Parts organizer

QUESTION 4
Which one of the following access controls entails users assigning access rights based on rules user specify?
- A. Mandatory access control (MAC)
- B. Attribute Based Access Control (ABAC)
- C. Role based Access Control (RBAC)
- **D. Discretionary access control (DAC)**

QUESTION 5
Application integration is crucial in modern business. There are a number of application integration challenges that businesses face today. Which of the following is **NOT** a valid way to overcome these challenges?
- A. Have easy-to-use, web-based, graphical integration design that business application owners can drive on their own.

B. Self-documenting interface with the ability to track changes and restore old versions if something goes wrong.
C. Opt for multiple, smaller integrations over large, more complex ones.
D. Training all users to become application integration experts so that they have the required skills.

QUESTION 6

_____ Is define as any electrical or electronic equipment that's been discarded.
    A. Faulty hardware
    B. E-waste
    C. E-devices
    D. Waste electronic equipment

QUESTION 7

Which one of the following converts the formats of electricity pulled from power sources to match the format required by the machines they power?
    A. ROM BIOS Chip
    B. CMOS RAM
    C. Hard Drive
    D. Power Supply

QUESTION 8

Which of the following best describes the characteristics of the information that is required by top level executives in an organization?
    A. It is sourced from internal sources and external sources, highly detailed and relevant to the long term
    B. It is sourced from external sources, highly summarized and relevant to the short term
    C. It is sourced from internal and external sources, highly summarized and relevant to the entire organization
    D. It is sourced from internal sources, highly summarized and relevant to the long term

QUESTION 9

Security of computer hardware and its components is also necessary for the overall protection of data. Which one of the following does **NOT** entail security of computer hardware and its component?
    A. Internal components
    B. Locks and cables
    C. Software
    D. Cloud Computing.

QUESTION 10

The device that tests computer ports basic functionality is known as _____.
    A. digital multimeter
    B. Loopback adapter
    C. toner probe
    D. port tester

QUESTION 11

During computer assembly, the processor is mounted onto the ZIF socket. After processor mounting, the___ will be attached on top of the processor.
    A. processor fan
    B. processor bay
    C. heat fan
    D. heat sink

QUESTION 12

Which one of the following refers to the process of replacing a product with a newer version of the same product?
    A. Updating
    B. Downgrading
    C. Upgrading
    D. Improving

QUESTION 13
A point of contact within the organization meant to cater for internal technical ICT queries is referred to as _____.
- A. ICT guide center
- **B. ICT Help desk**
- C. ICT queries point
- D. ICT data center

QUESTION 14
_____is used to describe devices that work with a computer system as soon as they are connected.

- A. Standard hotub
- **B. Plug-and-Play**
- C. Universal Serial Bus
- D. High Definition Multimedia Interface

QUESTION 15
Which one of the following is a cyber-attack that entails stealing smaller amounts of money from thousands of bank accounts at once?

- A. Data diddling
- **B. Salami attack**
- C. Password attack
- D. Cross-site Scripting

QUESTION 16
Which of the following is **NOT** components of an information system?
- A. Software
- B. Information
- C. Procedure
- **D. Arithmetic and logic unit**

QUESTION 17
What is the name given to a hardware device or software program used to convert data from one format into another?

- A. Register
- **B. Encoder**
- C. Decoder
- D. Flip flop

QUESTION 18
_____describes security measures that are designed to deny unauthorized access to facilities, equipment and resources and to protect personnel and property from damage or harm.

- A. Network Security
- **B. Physical Security**
- C. Information Security
- D. Database Security

QUESTION 19
Acronym RSI stands for?
- A. Repetitive Standing Injury
- B. Real Strain Injury
- C. Repeated Standing Injury
- **D. Repetitive Strain Injury**

QUESTION 20
What is the name of the physical docking point where an external device can be connected to the computer?

- A. Websocket
- B. Outlet
- **C. Port**

D. Socket

QUESTION 21

Identify the type of cybercrime attack initiated by cybercriminals to masquerade as a senior player at an organization and directly target senior or other important individuals of a given organization.

   A. Whaling
   B. Smishing
   C. Spearphishing
   D. Vishing

QUESTION 22

What is defined as an integrated set of components for collecting, storing, and processing data and for providing information, knowledge, and digital products?
   A. Information system
   B. Computerized system
   C. Data system
   D. Digital system

QUESTION 23

The type of system integration that supports the expanding of the functionality of the existing system is referred to as
.
   A. Business-to-business integration
   B. Enterprise application integration
   C. Third-party system integration
   D. Legacy system integration

QUESTION 24

Which one of the following refers to the abuse of computers and high-technology appliances to undermine computing resources of an adversary?
   A. Information Warfare
   B. Electronic Warfare
   C. Cyber Crime
   D. Cyber Reconnaissance

QUESTION 25

Which of the following is not a power on- self- test (POST) output message?
   A. Audio codes
   B. onscreen text messages
   C. hexadecimal numeric codes
   D. Video codes

QUESTION 26

Disaster response is the reaction and activity involved in helping people who have involved in some kind of catastrophe. Among the following, identify number one priority of disaster response.
   A. Resuming transaction processing.
   B. Protecting the hardware.
   C. Protecting the software.
   D. Personnel safety

QUESTION 27

_____ refers to group of computers are linked together so they can work as a single entity.
   A. Clusters
   B. Sectors
   C. Vectors
   D. Heads

QUESTION 28

An attempt by attacker to take control of computer system, programs and network communication can be referred to as___.
- A. Threats
- B. Session hijacking
- **C. Cyber hijacking**
- D. Cyber Attacks

QUESTION 29

Glorix Ltd sells both new and refurbished computers and their accessories. Mrs Clarax bought a new computer recently and has lodged a complaint with respect to how her computer has become very slow. Which of the following is NOT a possible cause for this?
- A. Too many startup programs.
- **B. Processor has become obsolete.**
- C. Many applications installed that are rarely used
- D. Low hard disk storage capacity.

QUESTION 30

A decision that is made by a proprietor of an organization using the experience acquired and documented rules can be referred to as?
- A. Structured decision
- **B. Semi structured decision**
- C. Unstructured decision
- D. Complete decision

QUESTION 31

_____relates to copying of physical or virtual files or databases to a secondary site for preservation in case of equipment failure or another catastrophe.
- A. Encryption
- B. Locking
- C. Decryption
- **D. Backup**

QUESTION 32

_____ is a cross-functional organizational backbone that integrates and automates many internal business processes and information systems within the sales and distribution, production, logistics, accounting, and human resources.
- **A. Enterprise Resource Planning**
- B. Payroll Management System
- C. Customer Relationship Management
- D. Human Resource Management

QUESTION 33

Who among the following are referred to as nefarious hackers and their sole objective is for financial gains?
- A. Amateur hackers
- **B. Black hat hackers**
- C. White hat hackers
- D. Gray hat hackers

QUESTION 34

Ergonomics is an applied science concerned with designing and arranging things people use so that the people and things interact most efficiently and safely. Identify from the following what a user should NOT do.
- **A. Sit in the same position for more than an hour**
- B. Use a speaker phone or headset, as needed.
- C. Keep your computer monitor at or below eye level.
- D. Use wrist and palm supports to rest in between tasks.

QUESTION 35

What tool is used to safely and quickly remove integrated circuits (ICs) from their sockets?

A. All-purpose cleaner
B. Chip extractor
C. Compressed air
D. Wet cloth

QUESTION 36

Which of the following is an advantage of system integration?
A. Realization of all organization's goals
B. Increased productivity
C. Better security of data
D. Development of viable systems

QUESTION 37

_____is the term that relates to weakness exhibited in system or network.
A. Threat
B. Attack
C. Vulnerability
D. Exploit

QUESTION 38

One of the hard drive types is the _____, which is a storage drive composed entirely of memory chips, rather than rotating magnetic disks in traditional hard disks.
A. serial ATA (SATA)
B. small computer system interface (SCSI)
C. solid state drives (SSD)
D. parallel ATA (PATA)

QUESTION 39

Which of the following statements listed below is **NOT** a good reason why web services must be tested?
A. The web services and client applications communicate over the world wide web, and there are abundant chances of a security breach.
B. The host maintains and improves the services periodically therefore development team must put in regular effort to improve the product, which involves changes through different builds and releases.
C. Webservices are small applications that have specific functionality therefore, a test is necessary to validate the functionality and quality of these services.
D. In order for the services providers to show their superiority and expertise in offering those services to their clients.

QUESTION 40

Mr. Zlate found out his computer is running perfectly after he powered it up, the longer he used it the slower it became. What could be the problem with the computer.
A. A non-bootable floppy disk is in the floppy-disk drive and you should remove it
B. The hard-drive has failed and you should replace it
C. RAM has failed and you should replace it
D. A key on the keyboard is stuck and the keyboard should be replaced

QUESTION 41

_____is an information system that supports the capturing, processing, storage of transactions and production of a variety of documents related to routine business activities
A. Transaction processing systems
B. Decision support system
C. Executive support systems
D. Management information system

QUESTION 42

Identify from the following, an Extensible Markup Language (XML) related technology.
A. XTML

B. XSave
C. XDS
D. XHTML

QUESTION 43
Which of the following commands will high-level format drive C, write the hidden operating system files in the first part of the partition, and prompt for the entry of a volume label to be stored on the disk?
A. Format C: /S/D
B. Format C: /D/S
C. Format C: /S/V
D. Format C: /V/S

QUESTION 44
Which of the following is a public network scam undertaken by cyber-criminals where the user is made to consent digitally to provide confidential information?
A. Man-in-the-Middle Attack
B. Denial-of-Service (DOS) Attack
C. Phishing Attack
D. Password Attack

QUESTION 45
The following are keyboard challenges;
I. Hard to press keys
II. The keyboard not attached to the PC
III. Dusty keys
IV. The keyboard failure
V. Sticky keys
Among those listed above, choose two that are likely to result to an error message "Keyboard error" being displayed on a computer screen.
A. I & II
B. I & III
C. II & IV
D. II & V

QUESTION 46
Which one of the following relates to safe and responsible use of Information and Communication Technologies (ICT)?
A. Cyber ethics
B. Cyber security
C. Cyber safety
D. Computer ethics

QUESTION 47
_____is the area where the computer stores its configuration information.
A. RAM
B. CMOS RAM
C. ROM
D. Flash Memory

QUESTION 48
Businesses, governments, and individuals can experience huge complications from having sensitive information exposed. Identify among the following a step not undertaken by cybercriminals in Data breaching.
A. Reconnaissance
B. Exfiltration
C. Fixing virus
D. System attacks

QUESTION 49
Which of the following cannot be classified as a weekly disk maintenance activity?
A. Backup any data or important files.

B. Delete all temporary files
C. Empty the Recycle Bin.
D. Check for and install any operating system updates.

QUESTION 50
Which program runs first after booting the computer and loading the graphical user interface (GUI)?
A. Desktop Manager
B. File Manager
C. Windows Explorer
D. Authentication

QUESTION 51
The _____ is a pathway composed of cables and connectors used to carry data between a computer microprocessor and the main memory.
A. System bus
B. Expansion bus
C. Register
D. Interrupt request (IRQ)

QUESTION 52
Which of the following represents the correct order in which you should install components into the case after disassembling a computer?
A. Power supply, motherboard, drives, cards
B. Drives, motherboards, cards, power supply
C. Cards, motherboard, power supply, drives
D. Motherboard, drives, cards, power supply

QUESTION 53
Which of the following is **NOT** a cause of blue screen in computers?
A. Faulty memory card
B. Faulty hardware drivers
C. Faulty system software
D. Faulty sound card

QUESTION 54
Which one of the following is a program designed to help users' detect a computer virus and avoid them?
A. Spyware
B. Antivirus
C. Adware
D. Malware

QUESTION 55
Which of the following is software testing type, in which the testing is performed on each individual component separately without integrating with other components?
A. Acceptance testing
B. Component testing
C. System testing
D. Integration testing

QUESTION 56
Among the statements below, identify the best describing how simple object access protocol (SOAP) is used.
A. **It is used for the exchange of information throughout platforms, languages and operating systems**.
B. It provides communication and connectivity between the devices and the internet for API-based tasks.
C. It is used to create Web pages and tells the browser how to display them.
D. It is the protocol where encrypted HTTP data is transferred over a secure connection such as Transport Layer Security or Secure Sockets Layer.

QUESTION 57

A customer reported that upon booting up his computer, the message: Invalid drive configuration," was displayed. What could be the problem?
- A. The hard drive power cable within the system unit is faulty
- B. The hard drive is not properly connected
- **C. The hard drive has not been formatted**
- D. The hard drive cylinder is faulty

QUESTION 58

Evolution of technology has evolved and shaped the way we communicate, learn, and work.
In view of the above, which of the following relates to exploring appropriate ethical behaviors in respect to public network usage?
- A. Cyber Law
- B. Cyber Operations
- **C. Cyber Ethics**
- D. Cyber Security

QUESTION 59

_____ is the name given to the processor's characteristic that offers some protection against overheating.
- A. Firmware
- B. Spooling
- **C. Throttling**
- D. Multiprocessing

QUESTION 60

Which of the following ICT enabled services, is defined as the usage of Information and Communication Technology (ICT) by the government to provide and facilitate government services, exchange of information, communication transactions and integration of various standalone systems and services?
- A. E-commerce
- B. Mobile ticketing
- C. Social networking
- **D. E-Governance**

QUESTION 61

Which of the following is **NOT** a feature of expert systems?
- A. Expert systems can be expensive to develop
- **B. Expert systems can deal with mixed knowledge**
- C. Expert systems can explain how and why a decision or solution was reached
- D. Expert systems can provide portable knowledge

QUESTION 62

A client called saying that a printer is not working. The printer was brought for repairs. What is the first thing you could do after receiving it?
- A. Run MSD diagnostics
- B. Attach it to a PC and print something
- C. Check the cable
- **D. Unbox it and examine it for physical damage**

QUESTION 63

Which of the following is crucial for organizational development and success and makes an employee become more efficient and productive?
- A. Finding system defects.
- **B. Training employees.**
- C. Penetration testing.
- D. Computer testing

QUESTION 64

Which of the following adheres to the principle of keeping sensitive information highly classified?

A. **Confidentiality**
B. Availability
C. Integrity
D. Maintainability

QUESTION 65

_____hardware device used for direct memory access.
A. Power supply
B. ROM BIOS
C. **Direct Memory Access controller**
D. Hard drive or controller

QUESTION 66

Which of the following is **NOT** a feature of web services?
A. Interoperability
B. Supports Exchange of Documents
C. Reliable Messaging
D. **Security and privacy**

QUESTION 67

What type of maintenance defined as "the regular and routine maintenance of equipment and assets in order to keep them running and prevent any costly unplanned downtime from unexpected equipment failure"?
A. Corrective Maintenance
B. Adaptive Maintenance
C. **Preventive Maintenance**
D. Perfective Maintenance

QUESTION 68

Code of Conduct is regarded as a set of rules pertaining to the use of participatory media. A digital code of conduct forms the basis for user and content moderation. In view of the above, which one among the following is not part of the code of ethics.
A. Integrity
B. Objectivity
C. **Integration**
D. Confidentiality

QUESTION 69

_____ provides backup power when your regular power source fails or voltage drops to an unacceptable level.
A. High-graded multi-meter
B. Spike protector
C. **Uninterruptible power supply**
D. Power supply unit

QUESTION 70

Which of the following is defined as an attempt by individual to send anonymous messages to Bluetooth-enabled devices within a certain radius.
A. Cyber attack
B. **Bluehacking**
C. Cryptography
D. Phishing

QUESTION 71

Internal components are devices that are connected to computer's motherboard or built-in to the motherboard. Among the following which one is **NOT** an internal component of a computer?
A. **Monitor**
B. Hard disk
C. Power supply unit
D. Memory card

QUESTION 72
Point-to-Point connection between devices can be connected to a single cable with a minimum of four wires.
Identify this cable among the following.
   A. IDE
   B. ATA Ribbon
   C. SAPA
   D. SATA

QUESTION 73
A temporary storage location inside the computer central processing unit (CPU) that stores data and addresses is known as
_____.
   A. Control unit
   B. Arithmetic and logic unit
   C. Register
   D. Input/output unit

QUESTION 74
User Integration is designed to manage the organizational changes companies are challenged with on a daily basis. Which of the following is **NOT** regarded as proper aspect of user integration?
   A. Physical Authorization
   B. Employee Authentication
   C. Access Control
   D. User database representation.

QUESTION 75
Which of the following concepts describe the situation when a computer user runs the motherboard or processor at higher speed than the manufacturer specification?
   A. Overclocking
   B. Throttling
   C. Overheating
   D. Multi-core processing

QUESTION 76
Which of the following are the three types of motherboard form factors?
   A. Mini-ITX, Micro-ATX and ATX.
   B. Mini-ATX, Micro-ATX and ATX.
   C. Mini-ITX, Macro-ATX and ATX.
   D. Mega-ITX, Micro-ATX and ATX.

QUESTION 77
Which one of the following is a benefit of electronic waste management?
   A. Existing facilities not designed to handle
   B. Heavy, Bulky and complex Waste to process,
   C. Requires special logistics and new handling facilities, with new e-waste processing Technology
   D. Protects the surroundings

QUESTION 78
Which of the following conforms to the concept of protecting the functionality of support systems and ensuring data is fully accessible at any given point in time?
   A. Availability
   B. Confidentiality
   C. Integrity
   D. Authenticity

QUESTION 79
Which one of the following is an element to be used for security operations center?
   A. People
   B. Data centre
   C. Database engine

D. Internet Connection

QUESTION 80
Printers can be classified based on printing speed. How is the speed of a dot matrix printer expressed?
   A. lines per second
   B. lines per minute
   C. characters per inch
   D. characters per second

QUESTION 81
Which of the following end devices can bring external files and virus along with it to the internal systems?
   A. Laptops
   B. Smart phone
   C. Tablet
   D. Pen-drive

QUESTION 82
Mr. Tumbili turned on his tablet and got a message displaying a message indicating that all of his files have been locked. In order to get the files unencrypted, he is supposed to send an email and include a specific ID in the email title. The message also includes ways to use blockchain as payment for the file decryption. After inspecting the message, the network analyst suspects a security breach occurred. What type of malware could be responsible?
   A. Trojan horse
   B. Adware
   C. Spyware
   D. Ransomware

QUESTION 83
Never expose laser printer under direct sunlight as heat from sunlight would impact its performance. Identify the part of the laser printer that should **NOT** be exposed to sunlight?
   A. Transfer corona assembly
   B. Printer PC
   C. Primary corona wire
   D. Toner cartridge

QUESTION 84
Which one of the following gives the assurance that the information is trustworthy and accurate?
   A. Authenticity
   B. Availability
   C. Integrity
   D. Confidentiality

QUESTION 85
Printdeal Ltd is a company dealing with a variety of printers. A customer reported that the print quality of a dot matrix printer acquired recently has changed from light to being dark. Identify the possible cause of this problem.
   A. Paper slippage
   B. Improper ribbon advancement
   C. Paper thickness
   D. Head position

QUESTION 86
Which one of the following is unwanted software designed to throw advertisements up on your screen, most often within a web browser?
   A. Adware
   B. Virus
   C. Macro virus
   D. Bootsector virus

QUESTION 87

Which one of the following refers to the abuse of computers and high-technology appliances to undermine computing resources of an adversary?

- **A. Information Warfare**
- B. Electronic Warfare
- C. Cyber Crime
- D. Cyber Reconnaissance

QUESTION 88

Which of the following is **NOT** a good proposal towards dealing with the challenges of e waste?

- **A. Discourage investment in this sector.**
- B. Promote recycling units to ease process and to encourage generators to have proper e-waste disposal.
- C. Impart training to generators on e-waste handling.
- D. Tax incentives for scrap dealers.

QUESTION 89

Which one of the following identifies the actual sender and recipient of a message alongside information such as date/time of transmission and intention of sender?

- A. Database Forensics
- B. Malware Forensics
- **C. Email Forensics**
- D. Network Forensics

QUESTION 90

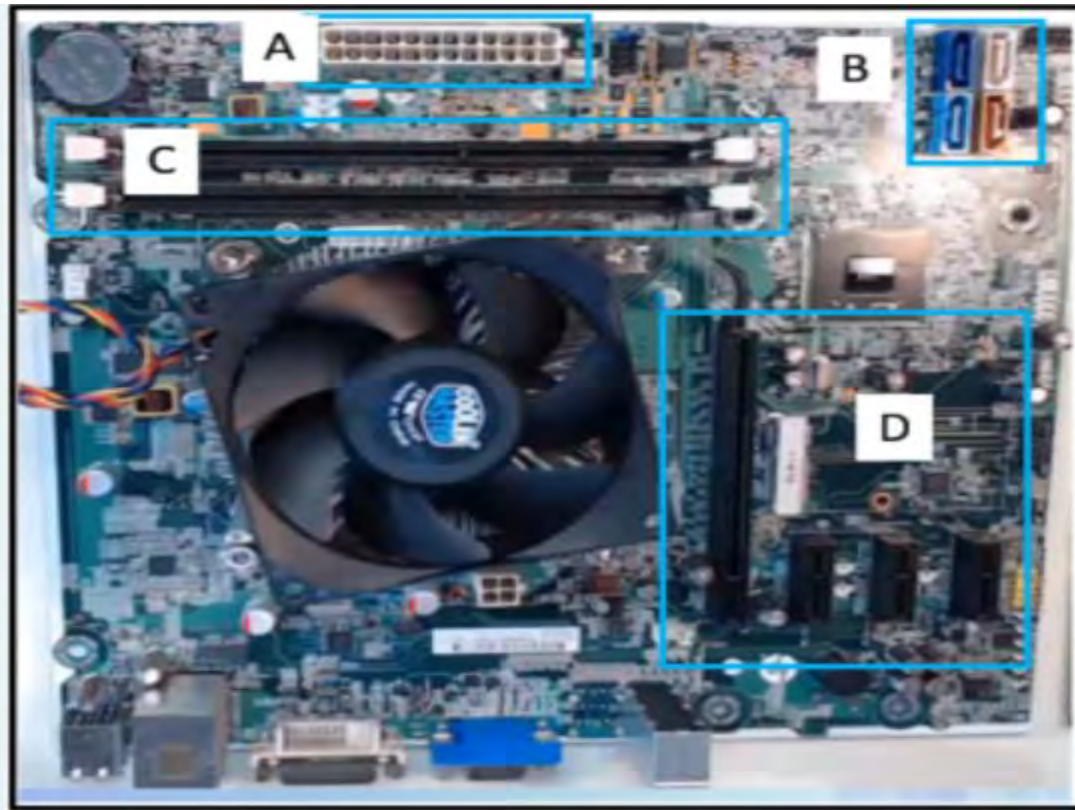_____is an updated system for booting computers that include support for 64bit systems.

- A. CMOS
- B. BIOS
- **C. UEFI**
- D. POST

QUESTION 91

What is the name of the term that describes a sudden increase in voltage that lasts for a short period and exceeds 100 percent of the normal voltage on a power line?

- A. Power Surge
- **B. Spike**
- C. Hypertransport
- D. Serial ATA (SATA)

QUESTION 92

Miss Rahab a newly employed technician is installing a second SATA hard drive. Which section of the following sections on the motherboard can be used to connect the SATA cable?
- A. SECTION D
- B. SECTION A
- C. **SECTION B**
- D. SECTION C

QUESTION 93

_____CPU architecture that uses a broad set of instructions, resulting in fewer steps per operation.
- A. Hyperthreading
- **B. Complex Instruction Set Computer (CISC)**
- C. Hypertransport
- D. Safety Data Sheet (SDS)

QUESTION 94

Which one of the following uses NAND, a type of flash memory named after the NAND logic gate to hold some important data in solid state storage on a hard disk drive device?
- **A. Solid state Hybrid Drive (SSHD)**
- B. Hard Disk Drive (HDD)
- C. Solid state Drive (SSD)
- D. Nonvolatile memory express (NVMe)

QUESTION 95

Which one of the following best describes direct consequence of identity theft?
- A. Your keyboard or mouse may stop working
- **B. Your email account may be accessed by someone else.**
- C. Your computer may take longer to start.
- D. Your broadband connection may suffer from reduced speed

QUESTION 96
Which of the following is a type of electronic surveillance that is used in criminal investigations?
  A. Wiretapping
  B. Network tapping
  C. Switchport analyzer
  D. Port Mirroring

QUESTION 97
Over time different technologies and solutions have been proposed to secure users' information online or offline. Which one of the following is considered to be a traditional authentication method?
  A. Secure socket layer
  B. Transport Layer Protocol
  C. Password-based authentication
  D. Secure Socket Shell

QUESTION 98
Which of the refers to the use of ICT to introduce, reinforce, supplement and extend skills?
  A. Integrity
  B. Objectivity
  C. Integration
  D. Confidentiality

QUESTION 99
Which one of the following is not a technique used to obfuscate data?
  A. Encryption
  B. Tokenization
  C. Cryptography
  D. Data Masking

QUESTION 100
Mr.Lidibwe downloaded a free game app for her daughter. He discovered a malware hidden inside that runs at the background of the device. Which type of security flow occurred to his device?
  A. Filejacking
  B. Spyware
  C. Adware
  D. Trojan

END