



DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

TUESDAY: 3 December 2024. Morning 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. In a bid to protect computer settings, a student setup a BIOS administrator password. Which one of the following methods can reset the forgotten password?
 - A. Remove the CMOS battery
 - B. Use a multimeter
 - C. Press Ctrl+Alt+Del
 - D. Add jumpers to reset(2 marks)

2. Which one of the following methods is a valid type of data encryption algorithm?
 - A. Authentication encryption
 - B. Synchronous encryption
 - C. Symmetric encryption
 - D. Quantum encryption(2 marks)

3. The data masking that hides sensitive data in memory, eliminating the requirement to store altered data in the database is referred to as _____ .
 - A. deterministic data masking
 - B. on-the-fly data masking
 - C. dynamic data masking
 - D. static data masking(2 marks)

4. Which one of the following types of system integration involves the connectivity of each system with the other remaining subsystems?
 - A. Star integration
 - B. Vertical integration
 - C. Horizontal integration
 - D. Industrial life-cycle integration(2 marks)

5. Which one of the following statements is **NOT** a challenge of computer systems integration in an organisation?
 - A. Existence of legacy systems in organisations
 - B. Rapid changes in the integration technology
 - C. Lack of skills among the workers
 - D. Multi-skilled technology savvy users(2 marks)

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6. Which one of the following data backup processes can be undertaken while a system continues to be in operation?
- A. Hot backup
 - B. Cold backup
 - C. Differential backup
 - D. Mirror backup
- (2 marks)
7. 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)
8. The ability of an operating system to control and delegate the processor’s time to different tasks is called _____.
- A. preemptive multitasking
 - B. time slice
 - C. cooperative multitasking
 - D. multiprocessing collaboration
- (2 marks)
9. Which one of the following terms **BEST** describes the first point of contact for computer end users experiencing technical problems whose functions include issue tracking, ticket management, troubleshooting, and user support?
- A. IT service management
 - B. IT technician desk
 - C. IT help desk
 - D. IT troubleshooting management
- (2 marks)
10. Which one of the following data handled by an organisation may be classified as **MOST** confidential, regulated and high-risk data?
- A. Personal Identifiable Information
 - B. Inter-office emails or memos
 - C. Organisation social media page
 - D. Proprietary intellectual property
- (2 marks)
11. Which one of the following devices dictates the computer form factor to use?
- A. Peripherals
 - B. Processor
 - C. Motherboard
 - D. Hard disk
- (2 marks)
12. Which one of the following terms refers to height to width ratio of a computer monitor screen?
- A. Aspect ratio
 - B. Diagonal ratio
 - C. Width ratio
 - D. Length ratio
- (2 marks)

13. Which one of the following devices is used for video games, flight simulators and for controlling industrial robots?
A. Mouse
B. Light pen
C. Joystick
D. Microphone (2 marks)
14. A computer hard disk platter is divided into tracks, which are further subdivided into _____.
A. clusters
B. sectors
C. heads
D. vectors (2 marks)
15. Which one of the following cleaning liquids is used to clean smudged keys on a keyboard?
A. TMC solvent
B. Silicone spray
C. Denatured alcohol
D. All-purpose cleaner (2 marks)
16. Which one of the following components would be affected most by electrostatic discharge?
A. Expansion board
B. Monitor
C. Keyboard
D. Power supply (2 marks)
17. A computer did not produce a single beep on booting. What should be checked first?
A. Power supply
B. Memory
C. Motherboard
D. Speaker (2 marks)
18. Which one of the following tools is used to test serial and parallel ports?
A. Volt probe
B. Cable scanner
C. Wrap plugs
D. Sniffer (2 marks)
19. Which one of the following statements describes the logical first step in troubleshooting a computer?
A. Check the computer CMOS
B. Define the circumstances of the problem
C. Call the vendor
D. Define what applications used (2 marks)
20. Which one of the following issues may **NOT** cause slow computer internet connection?
A. Inefficient router
B. ISP bandwidth throttling
C. Spyware and virus
D. Unregistered computing device (2 marks)

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21. Which one of the following tools is used for working with patch panels?
- A. Network testers
 - B. Firewall tool
 - C. Loopback plug
 - D. Punch down tool
- (2 marks)
22. Which of the following measures is an example of an administrative cybersecurity control measure?
- A. Backup and recovery practices
 - B. Intrusion detection systems
 - C. Multi-factor authentication
 - D. Security awareness training
- (2 marks)
23. Which one of the following statements is true regarding RJ45 and GG45 connectors?
- A. GG45 connectors are not backward compatible with RJ45 connectors
 - B. GG45 is the standard and ubiquitous connector for Ethernet networking
 - C. GG45 connectors have 12 contacts while RJ45 connectors have 8 contacts
 - D. GG45 is commonly used for Cat 5 cabling with RJ45 is used for Cat 8 cabling
- (2 marks)
24. The Human Resources (HR) department wants to ensure that all employees are aware of and adhere to the company's data privacy policies. To achieve this, they develop a comprehensive standard operating procedure outlining the proper handling of sensitive information. How does the HR department's action contribute to the workplace?
- A. It contributes to employee onboarding process therefore impacting turnover
 - B. It ensures adherence and compliance with company policies and procedures
 - C. It promotes social events within the company, fostering a sense of teamwork
 - D. It improves employee well-being and reduces the number of working hours
- (2 marks)
25. A student was given the steps to follow when troubleshooting a computer that wouldn't turn on:
- I. Inspect the power cord for damage
 - II. Check the power supply unit
 - III. Ensure the power cord is securely connected
 - IV. Bypass power strips or surge protectors
- Required:**
Arrange the steps in the correct order to follow.
- A. II, III, IV, I
 - B. I, II, III, IV
 - C. III, I, II, IV
 - D. III, I, IV, II
- (2 marks)
26. Running a processor or motherboard at a higher frequency than the manufacturer recommends is referred to as _____.
- A. hyper threading
 - B. multithreading
 - C. augmentation
 - D. overclocking
- (2 marks)

27. Which of the following is **NOT** a symptom of a faulty power supply unit?

- A. Electric shocks
- B. System hanging
- C. Slow performance
- D. Random shutdowns

(2 marks)

28. A student came across the following diagram:



Which one of the following ports replaced the port above?

- A. RJ45
- B. RCA
- C. HDMI
- D. USB-B

(2 marks)

29. During an ICT preventive maintenance class, a student came across the following cable:



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Name the device connected to this cable.

- A. Expansion card
- B. Heat sink
- C. Hard disk
- D. Keyboard

(2 marks)

30. Which one of the following refers to a standard or point of reference used to evaluate or compare the performance of computer hardware or software?

- A. Touchstone
- B. Benchmark
- C. Criterion
- D. Capstone

(2 marks)

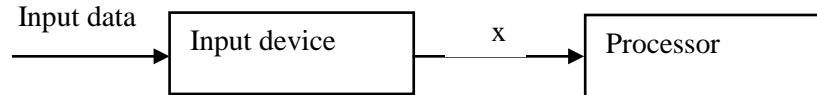
31. A measure of the number of hours that a computer system is unavailable for use is referred to as _____.
- A. downtime
 - B. transient
 - C. interrupt
 - D. shutdown
- (2 marks)
32. Which one of the following symptoms is **NOT** related to dirty power?
- A. Flickering lights
 - B. Equipment noise
 - C. Sudden blackout
 - D. Transformer issues
- (2 marks)
33. Which one of the following technologies is **NOT** associated with end-user computing?
- A. Mainframe computers
 - B. Wearable technology
 - C. Remote desktop software
 - D. Application virtualisation
- (2 marks)
34. Which one of the following statements **BEST** describes the primary challenge in integrating heterogeneous systems?
- A. Achieving a standardised user interface
 - B. Maintaining data consistency and integrity
 - C. Reducing the cost of hardware and software
 - D. Simplifying user training and documentation
- (2 marks)
35. Which one of the following statements about the CMOS battery and its role in a computer system is **CORRECT**?
- A. The CMOS battery supplies power to the system's main processor to preserve BIOS settings
 - B. The CMOS battery provides power to the real-time clock when the computer is powered off
 - C. The CMOS battery is responsible for powering the computer's RAM to retain data during shutdown
 - D. The CMOS battery supplies power to the hard drive to maintain data integrity during power loss
- (2 marks)
36. After switching on his computer, Alfred Gitau came across the following error "Non-system disk error or disks error, replace and strike any key when ready". Which of the following options can fix this error?
- A. Adjusting monitor for image viewing
 - B. Installing updated graphics software
 - C. Set the correct boot priority in BIOS
 - D. Checking status of network connection
- (2 marks)
37. Imani Aisha recently upgraded her computer to the latest operating system. After restarting the computer, she realised that one of the applications was no longer working. Which one of the following is the next step for her to take?
- A. Reinstall the application
 - B. Check for clogged vents
 - C. Reinstall the operating system
 - D. Check for application updates
- (2 marks)

38. An employee of an organisation receives a call from someone claiming to be part of the support staff from the IT department and urgently needing to verify the employee's login credentials due to a supposed security breach. The employee, believing the call to be legitimate, provides their username and password, which the attacker then uses to access sensitive company data. This case is an example of _____.
- A. social engineering
 - B. reverse engineering
 - C. link manipulation
 - D. evil twin phishing
- (2 marks)
39. Which one of the following terms refers to the process of bringing together the component sub-systems into one system and ensuring that the subsystems function together as a system?
- A. System encapsulation
 - B. System assembly
 - C. System polymorphism
 - D. System integration
- (2 marks)
40. Which one of the following types of computer motherboards support a single or a twin CPU configuration and has up to eight RAM slots?
- A. Micro ATX motherboard
 - B. Flex ATX motherboard
 - C. eXtended ATX motherboard
 - D. Standard ATX motherboard
- (2 marks)
41. Which one of the following devices can be used to protect electronic equipment from transient voltage or spikes?
- A. Multimeter
 - B. Surge suppressor
 - C. Power supply unit
 - D. An AC compressor
- (2 marks)
42. Which one of the following features is added to newer processors to provide faster access to memory, and to provide better overall application and system support?
- A. ESD protection
 - B. Visual language model
 - C. L6 cache
 - D. L3 cache
- (2 marks)
43. While using compressed air can to clean computer parts, why is it advisable to avoid shaking it too vigorously?
- A. Propane and butane gas can expand and explode the can
 - B. Propane and butane gas can catch fire due to excessive shaking
 - C. Propane and butane gas can liquefy and expel liquid
 - D. Shaking can cause harmful chemical reaction among the can contents
- (2 marks)
44. Which one of the following practices is **NOT** necessary in preventing physical health problems when using computers?
- A. Ensure monitor is at eye level
 - B. Keep feet up on a raised ground
 - C. Keep wrists in a neutral position when typing
 - D. Use a chair with good back support
- (2 marks)

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45. Software developers use software development tools to debug, maintain, create and support applications. Which one of the following **CANNOT** be classified as a software development tool?
- A. Compilers
 - B. Linkers
 - C. Memory editors
 - D. Performance analysis tools
- (2 marks)

46. Select the answer that **BEST** fills in the gap marked X on the figure below.



- A. Control unit signal
 - B. Output device signal
 - C. Data in coded form
 - D. Beeping sound
- (2 marks)
47. Tom is considering upgrading a desktop processor. What else must he also consider for this upgrade?
- A. Network loadable module
 - B. A permanent swap file
 - C. Media player software
 - D. Voltage regulator module
- (2 marks)

48. Suggest the **MOST** appropriate reason for upgrading a computer's storage drive to a solid-state drive (SSD).
- A. To increase the size of the memory
 - B. To avoid CPU overclocking leading to crashing
 - C. To improve data access speed and overall system performance
 - D. To add more USB ports and peripheral devices
- (2 marks)

49. The 4R rule is a garbage and waste stream management strategy that is environmentally sustainable. Which one of the following is **NOT** an incremental fraction of the waste stream?
- A. Reproduce
 - B. Reuse
 - C. Recycling
 - D. Recovery
- (2 marks)

50. Which one of the following is **NOT** a benefit of upgrading computer software?
- A. Upgrading ensures better overall PC performance
 - B. Upgrading facilitates good partnerships of software houses
 - C. Upgrading guarantees compatibility
 - D. Upgrading ensures access to the most up-to-date features
- (2 marks)

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LEVEL I

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

TUESDAY: 20 August 2024. Morning 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 reasons may force a computer user to replace a computer motherboard?
 - A. In order to increase the capacity of power supply unit to motherboard
 - B. In order to change the form factor of the motherboard
 - C. In order to upgrade the processor
 - D. In order to enhance audio output supported by motherboard(2 marks)

2. Which one of the following is **NOT** an active electronic component in a computer?
 - A. Diode
 - B. Transistor
 - C. Resistor
 - D. Integrated Circuit(2 marks)

3. Which one of the following memories require refreshing to store information?
 - A. DRAM
 - B. SRAM
 - C. EPROM
 - D. Cache(2 marks)

4. Which one of the following is ideal for cleaning printed circuit boards such as computer motherboard?
 - A. Isopropyl alcohol
 - B. Distilled water
 - C. Soap and water
 - D. Piece of clothe(2 marks)

5. A user would like to leave their computer on for an hour when attending a meeting. Which one of the following power options would be **BEST** for this duration?
 - A. Hibernate
 - B. Sleep mode
 - C. Shut down
 - D. Switch user(2 marks)

6. A computer user found the following error: "BOOTMGR is missing". Which one of the following is **NOT** a possible cause for this error?
 - A. Perform a BIOS upgrade
 - B. Remove external media
 - C. Install scripting tools
 - D. Check hard drive for errors(2 marks)

7. The process of hiding data by modifying its original letters and numbers is known as _____.
 - A. data encryption
 - B. data masking

- C. data authentication
D. data authorisation (2 marks)
8. Which one of the following is **NOT** a common cause of screw stripping during computer assembly?
A. The screwdriver slipping out and scratching the screw
B. Using the wrong screwdriver for the given screw head
C. Improper screwdriver etiquette, such as screwing too fast or at an angle to the head
D. Using poor quality screws (2 marks)
9. The name of a device with some processing capability through which information may be transferred to and from a larger processing system is known as _____.
A. digital terminal
B. programmable terminal
C. intermediary terminal
D. logical terminal (2 marks)
10. Which one of the following options can be used to move the specified file to the recycle bin?
A. Right click on the specified file and select delete
B. Use del command from a command prompt
C. Use RMDIR command from a command prompt
D. Select the specified file, then SHIFT + DELETE (2 marks)
11. Which one of the following is a type of system integration method that involves integrating one system directly with another system?
A. Vertical integration
B. Point-to-point integration
C. Horizontal integration
D. Star integration (2 marks)
12. Which one of the following is **NOT** a symptom of repetitive strain injury associated with overuse of computer?
A. Tightness, discomfort, stiffness in the hands, wrists and fingers
B. Tingling or numbness in the hands
C. Loss of mental coordination and dizziness
D. Constant pain in the upper back, shoulders or neck (2 marks)
13. Which method of e-waste management entails sorting and separation of waste types to facilitate recycling and correct onward disposal?
A. Waste burying
B. Waste cohering
C. Waste segregation
D. Waste trashing (2 marks)
14. Suggest the name of training employees characterised by delivering content to them in bite-sized (3-5 minutes) bursts at the point of need, with a focused and specific learning outcome.
A. Micro learning
B. Gamification training
C. Peer-to-peer learning
D. Webinar (2 marks)
15. When trying to access a website, Joel received the following message: “Error 400 Bad request”. Which one of the following is a possible cause of the error?
A. Third party software intercepting the request
B. A mistake was made when developing the website
C. The request sent to the server is incorrect
D. The website has a malicious code injected into it (2 marks)
16. Which one of the following is **NOT** a business driver for an information system?
A. Business process redesign
B. Knowledge asset management
C. Proliferation of networks and the Internet
D. Security and privacy (2 marks)

17. Which one of the following is **NOT** a credential that can be used to identify and authenticate a user?
A. Password
B. Security token
C. Biometric scan
D. Frisking (2 marks)
18. A user receives a “timeout” error when sending emails. Which one of the following would be a possible cause?
A. The email address is blacklisted by the ISP
B. A problem with the email server or account
C. A problem with the email service provider
D. The file or attachment may be too large (2 marks)
19. Which one of the following is **NOT** a cause of aches and pains when using a computer?
A. Repetitive work
B. Uncomfortable working postures
C. Using a laptop instead of a desktop computer
D. Carrying out tasks for long periods without suitable rest breaks (2 marks)
20. Which one of the following is **NOT** an example of a communication device?
A. Gaming console
B. Joystick
C. Smartphone
D. Smart TV (2 marks)
21. Which one of the following tools assist in troubleshooting by providing systematic instructions to identify and resolve common computer issues?
A. User manual
B. Wizard
C. Tutorial
D. Regular form (2 marks)
22. Screen sharing is a popular method of offering computer support. Which one of the following applications **CANNOT** offer screen sharing for remote support?
A. Zoom
B. TeamViewer
C. ShareDesk
D. Google Remote Desktop (2 marks)
23. Which one of the following is **NOT** a common cause of electric shock?
A. Using a frayed or damaged AC adapter
B. Moving a laptop while it’s still on
C. Touching overloaded electrical outlets
D. Putting objects into an electrical outlet (2 marks)
24. Which one of the following options can be used to resolve a non-system disk error?
A. Disconnect all external storage devices such as USB drives and attempt again
B. Close additional programs loading on startup and install additional memory
C. Remove the memory module from its current slot and place it in a different slot
D. Reformat the hard drive to remove existing data and then reinstall the operating system (2 marks)
25. Which one of the following is a method of computer support where customer service is delivered digitally through multiple channels?
A. Peer support
B. Help desk support
C. People support
D. Online support (2 marks)
26. What is the name of software, which combines different applications and services into a cohesive and robust application?
A. Integration platform
B. Programming
C. Platform merger
D. Suite mixer (2 marks)

27. Which one of the following information system security goals will ensure that information is **NOT** altered without authorisation?
- A. Confidentiality
 - B. Integrity
 - C. Non-repudiation
 - D. Availability
- (2 marks)
28. You work as part of the IT support team in an educational institution, and have recently installed a wireless printer in the office. A user calls in to report that he is unable to print from the wireless printer. What could the cause of this be?
- A. The printer uses the oldest USB standard which is not suitable for some connections
 - B. The printer is connected to a different network SSID than the user's device
 - C. The printer is using an Ethernet cable instead of the previously installed fiber optic cable
 - D. The printer is restricted to desktop computer users only, and the user cannot print from his tablet device
- (2 marks)
29. Data classification is the act of assigning an information category based on the content's level of sensitivity. Which one of the following is **NOT** a data classification category?
- A. Public data
 - B. Obscured data
 - C. Restricted data
 - D. Confidential data
- (2 marks)
30. Which one of the following is **NOT** a key consideration when upgrading computer hardware?
- A. Compatibility issues
 - B. Assessing the cost-benefit balance
 - C. Upgrading time
 - D. Software issues
- (2 marks)
31. Which one of the following is the type of authentication that requires the user to verify their identity via an app on a smartphone or tablet?
- A. Email token authentication
 - B. Software token authentication
 - C. SMS token authentication
 - D. User token authentication
- (2 marks)
32. Which one of the following is indicated by the orange light on a laptop?
- A. Caps lock on
 - B. Wireless connectivity
 - C. Bluetooth activity
 - D. Battery charging
- (2 marks)
33. Which one of the following is a type of hidden computer virus that operates by attacking operating system processes while actively avoiding detection?
- A. Trojan horse
 - B. Resident virus
 - C. Cavity virus
 - D. Stealth virus
- (2 marks)
34. Which one of the following cables is used to connect a laptop to a television?
- A. Coaxial
 - B. PS/2
 - C. HDMI
 - D. Ethernet
- (2 marks)
35. Which one of the following statements **BEST** describe virtual memory?
- A. A high speed storage area that stores frequently accessed data or instructions
 - B. It provides extra storage by transferring data between main memory and the hard disk
 - C. A volatile memory that allows the computer to store and quickly access data while it's running
 - D. It is designed for sub-compact computers and allows for high density storage
- (2 marks)

36. Which one of the following is **NOT** a factor to consider when upgrading the power supply unit?
- A. Wattage rating
 - B. Efficiency rating
 - C. Connectivity options
 - D. Durability options
- (2 marks)
37. Which one of the following methods can be used to reduce the risks of visual problems when using a computer?
- A. Stand up and march on the spot for 30 seconds to improve the blood flow in your eyes
 - B. Stand on your tiptoes and stretch upwards, as tall as you can, to release some of the tension in your head and eyes
 - C. Keep the working area clean and use an addition lamp to make it easier to see
 - D. Reposition the screen to avoid glare from lights or windows
- (2 marks)
38. Suggest the name of an optical film that allows the display to show its image by controlling the amount of light passing.
- A. Mirroring film
 - B. Doubling film
 - C. Polarizing film
 - D. Blurring film
- (2 marks)
39. Which one of the following is **NOT** a common challenge in implementing data security?
- A. Balancing accessibility with security
 - B. Keeping up with evolving encryption standards
 - C. Ensuring reliable purchasing of computer hardware
 - D. Ensuring that employees understand and follow data security protocols
- (2 marks)
40. A tool used to track IT service requests, events, incidents and alerts that might require additional action from specialists and technicians is known as:
- A. IT ticketing system
 - B. User requests module
 - C. Repair schedule
 - D. Response schedule
- (2 marks)
41. Which one of the following is **NOT** a key element of systems integration?
- A. Understanding the goal
 - B. Planning the project
 - C. Recruiting the personnel
 - D. Executing the plan
- (2 marks)
42. Which one of the following refers to the practice of soaking electronic circuits in powerful sulphuric, hydrochloric or nitric acid solutions to separate metals from the electronic pathways in e-waste management?
- A. Melting
 - B. Acid Bath
 - C. Acid kiln
 - D. E-smelting
- (2 marks)
43. Which one of the following motherboard form factor has the highest number of random-access slots?
- A. Micro ITX
 - B. Standard ATX
 - C. Extended ATX
 - D. Micro ATX
- (2 marks)
44. Which one of the following refers to the category of computer hardware tools that support computer assembly and installation?
- A. Cleaning tools
 - B. Electro-static discharge (ESD) tools
 - C. Hand tools
 - D. Diagnostic tools
- (2 marks)

45. Which one of the following software tools will provide information about hardware resource usage and performance relating to the system's individual apps and processes?
A. Task Manager
B. Event Viewer
C. Performance Monitor
D. Network Troubleshooter (2 marks)
46. Which one of the following types of data security controls operate at the systems connection level?
A. Operational
B. Response
C. Architectural
D. Visibility (2 marks)
47. Which one of the following is **NOT** an ICT training method that will keep trainees attentive and involved?
A. Quizzes
B. Small group discussions
C. Email
D. Case studies (2 marks)
48. Which one of the following methods may **NOT** be used to solve “Apps Not Responding” error message?
A. Run advanced file management utility
B. Clean boot
C. Check app compatibility
D. Close all the other programs (2 marks)
49. Which one of the following is **NOT** a way of fixing “the computer does not boot problem”?
A. Checking the power source
B. Resetting the RAM
C. Booting from the safe mode
D. Updating the drivers (2 marks)
50. Kentex College purchased a computer with processor type: Intel Core i5-9400T. What does the suffix T on the code mean?
A. Optimised for efficient desktop computing
B. Unlocked for overclocking
C. High-performance graphics
D. Optimised for laptop power efficiency (2 marks)
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DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

TUESDAY: 23 April 2024. Morning 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. Vincent, a technician noted the symbol shown in Figure 1 below on several electronic components. What is the meaning of the symbol?



Figure 1

- A. Turn left, right then move downwards
B. Do not open unless equipment is cool
C. Electric hazard
D. Press once if in danger (2 marks)
2. Which one of the following is a communication device that regenerates signals as they travel over long distances?
A. Router
B. Repeater
C. Modem
D. Bridge (2 marks)
3. What is the function of a power supply unit in a computer?
A. To convert alternating current to direct current
B. To convert direct current to alternating current
C. To convert existing passive current to active current
D. To insulate and switch power in electronic devices (2 marks)
4. Which one of the following is **NOT** an application of freeze sprays in computer support and maintenance?
A. Repairing hairline cracks in printed circuit boards traces and defective solder joints
B. Diagnosing defective electronic components on printed circuit boards, motherboards and other devices
C. Protecting heat sensitive components during soldering and de-soldering
D. Quickly cooling solder joints (2 marks)
5. Which one of the following is **NOT** a characteristic of BTX motherboard form factor?
A. An increased number of expansion slots
B. Increased processor speed to handle complex tasks
C. Better electrical and thermal regulation
D. Multiple system sizes and configurations (2 marks)

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6. Which one of the following is a type of processor that has four cores, allowing it to perform multiple tasks simultaneously and independently?
- A. Dual core
 - B. Quad core
 - C. Single core
 - D. Octa core
- (2 marks)
7. Alice was required to troubleshoot a computer visual display unit that was not displaying the graphical user interface after the power on self-test (POST). Which of the following is a possible cause of the problem?
- A. Monitor not compatible with system unit
 - B. Monitor had overheating problem
 - C. Faulty monitor power button
 - D. Faulty graphics card or video card
- (2 marks)
8. Suggest the possible problem of the computer that is extremely slow when opening and executing application programs?
- A. Errors in operating system or corrupted program files
 - B. Loading programs whose source is unknown
 - C. The user is in unnecessary hurry
 - D. Installing programs that are very new in the market
- (2 marks)
9. Which one of the following materials and equipment can be used to clean a computer keyboard?
- A. Soap and water
 - B. Toilet paper
 - C. Canned air
 - D. Spongy cloth
- (2 marks)
10. Which one of the following is **NOT** a way of fixing a frozen computer screen?
- A. Close your frozen computer programs
 - B. Close file explorer on windows
 - C. Check for uninstalled updates and install them
 - D. Scan for malware
- (2 marks)
11. Which one of the following is **NOT** a cause of slow internet?
- A. Full browser history
 - B. Too many devices are online
 - C. Recent reset of communication equipment
 - D. Congested access point
- (2 marks)
12. Which one of the following is a negative effect of e-waste?
- A. Increased cancer cases
 - B. Climate change effects
 - C. Soil pollution
 - D. Donation of faulty computers
- (2 marks)
13. Which one of the following is **NOT** a computer hardware upgrading activity?
- A. Installing more RAM
 - B. Adding a faster SSD
 - C. Installing a new version of antivirus software
 - D. Replacing an outdated network card
- (2 marks)
14. Which one of the following is an example of computer-based training method?
- A. LCD projector method
 - B. E-mailing method
 - C. Webinar method
 - D. Google method
- (2 marks)
15. Which one of the following will act as a reference to employees in the organisation when they need to troubleshoot a printer or upgrade security on a laptop?
- A. Help desk
 - B. Peer support
 - C. Online desk
 - D. Information centre
- (2 marks)

16. A computer user complains that his computer has booted up but the monitor remains blank. What is the first thing to do?
- A. Check for lines and patterns on the screen
 - B. Check for loosely connected monitor cables
 - C. Shut down the computer then turn it on again
 - D. Replace the monitor with a different one
- (2 marks)
17. Which type of mouse uses LED sensor technology?
- A. Trackball
 - B. Wired
 - C. Optical
 - D. Wireless
- (2 marks)
18. Which one of the following commands can be used to delete temporary files in a computer?
- A. %temp&
 - B. %temp%
 - C. %delete%
 - D. %remove%
- (2 marks)
19. Which one of the following is a **BENEFIT** of using online support materials instead of user guides?
- A. Renowned authors write online support materials as opposed user-guide authors
 - B. Online support materials are more detailed compared to user-guides
 - C. Online support materials are editable unlike user-guides
 - D. Online support materials are accessible from anywhere compared to user-guides
- (2 marks)
20. Which one of the following is a cloud-based software development tool that enables developers to share and review code and manage software projects?
- A. GitHub
 - B. Click Up
 - C. Azure
 - D. Atom
- (2 marks)
21. Albert is trying to connect to a Bluetooth device right next to him, but cannot find any Bluetooth devices listed on his PC. Which of the following options would you suggest to help him solve the problem?
- A. Enable the 'force stop' option
 - B. Update the device's firmware
 - C. Turn on the discoverable feature
 - D. Increase the Bluetooth range
- (2 marks)
22. Which one of the following is an example of confidential data?
- A. Proprietary information
 - B. Social security number
 - C. Internal-only memos
 - D. Job descriptions
- (2 marks)
23. Which one of the following is **NOT** a safety precaution observed when assembling or disassembling a computer?
- A. Wear an anti-static wrist strap
 - B. Handle components with care and use proper tools
 - C. Avoid touching anything unless you are specialist
 - D. Turn off and unplug the power source
- (2 marks)
24. Name the laptop input device, which is normally a flat surface that is manipulated with a finger to control the mouse pointer.
- A. Touch ball
 - B. Touch pad
 - C. Ipad
 - D. Dual pad
- (2 marks)

25. Match the following types of computer maintenance and the circumstance that may cause the need for each.

| S/No | | | |
|------|--------------|---|---|
| I | Predictive | W | Solve a problem that has occurred in a computer |
| II | Preventive | X | Develop the main system of a computer to help the PC in performing more efficiently |
| III | Corrective | Y | Prevent possible failures and enhance the overall computer functioning |
| IV | Evolutionary | Z | Prevent some potential problems that can occur |

- A. I-Y, II-Z, III-W, IV-X
 B. I-Z, II-Y, III-X, IV-W
 C. I-W, II-X, III-Z, IV-Y
 D. I-X, II-W, III-Y, IV-Z (2 marks)

26. Which one of the following is **NOT** a type of system integration method?

- A. Vertical integration
 B. Mesh integration
 C. Star integration
 D. Horizontal integration (2 marks)

27. The data protection method that involves the changing of plain text into coded data is referred to as _____.

- A. Data decryption
 B. Access control
 C. Data encryption
 D. Data masking (2 marks)

28. Which one of the following computer diagnostic tools can be used to measure current in a computer system circuit board?

- A. Ammeter
 B. Tester
 C. Multi meter
 D. Voltmeter (2 marks)

29. Which one of the following is a purpose of data authentication?

- A. To convince the user that the data has been altered
 B. To certify the origin of the data
 C. To allow users to access data
 D. To encrypt the data (2 marks)

30. Which one of the following types of dustbins can be used for e-waste materials?

- A. Black dustbins
 B. Yellow dustbins
 C. White dustbins
 D. Blue dustbins (2 marks)

31. Which one of the following is the type of computer backup that results in copying only the data that has changed since the last backup operation?

- A. Full backup
 B. Incremental backup
 C. Differential backup
 D. Cloud backup (2 marks)

32. Which one of the following types of access control will provide access rights to computer users depending upon the rules already set by the administrators?

- A. Discretionary Access Control (DAC)
 B. Role-Based Access Control (RBAC)
 C. Attribute-Based Access Control (ABAC)
 D. Tuple-Based Access Control (TBAC) (2 marks)

33. Which one of the following computer problems is **NOT** likely to emanate from power line noise?
- A. System lockups
 - B. Audio static
 - C. Data loss
 - D. Lost revenue
- (2 marks)
34. _____ is a computer diagnostic software that is used to show a timeline of history of events and errors that occurred in the system.
- A. Process explorer
 - B. HWiNFO
 - C. Reliability monitor
 - D. CPU-Z
- (2 marks)
35. Which one of the following assists with input and output to printers by holding data in special areas to avoid holding up the CPU?
- A. Caching
 - B. Binding
 - C. Spooling
 - D. Docking
- (2 marks)
36. Which one of the following access control mechanisms are implemented using software programs?
- A. Physical controls
 - B. Logical controls
 - C. Program controls
 - D. Systems controls
- (2 marks)
37. Which one of the following is **NOT** an example of physical access control system to computer premises?
- A. CCTV cameras
 - B. Biometric
 - C. Passwords
 - D. Security guards
- (2 marks)
38. Which one of the following is the **MOST** appropriate tool for removing debris and dust in a hard to reach area of a computer?
- A. Long nose pliers
 - B. Foam swabs
 - C. Lint-free cloth
 - D. Moist mop
- (2 marks)
39. Which one of the following **BEST** describes the computing process of hiding data by modifying its original letters and numbers?
- A. Data authentication
 - B. Data scrubbing
 - C. Data encryption
 - D. Data masking
- (2 marks)
40. Which one of the following **BEST** describes the vertical integration?
- A. A business strategy in which a company gains control of its competitors
 - B. A business strategy in which data is extracted, loaded and transformed
 - C. A business strategy in which a company purchases its upstream suppliers
 - D. A business strategy in which a company trades online with no intermediaries
- (2 marks)
41. Which one of the following is **NOT** a major component of a hardware-integrated system?
- A. Firmware
 - B. Sensors
 - C. Communications
 - D. Software
- (2 marks)

42. Which one of the following statements **BEST** describes the term wizard as used in computer support?
- A. A document on a computer that shows how to use a computing device or program in a series of easy stages
 - B. A feature that produces information on the screen to aid the user in their current task
 - C. A user interface that leads a user through a sequence of small steps to configure a program for the first time
 - D. A document designed for an end user to use computer properly or to find solutions to problems that arise through use
- (2 marks)

43. Figure 2 shows ports used in a computer. Select the I/O devices that connect to each.

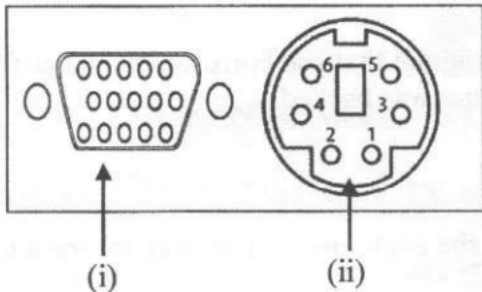
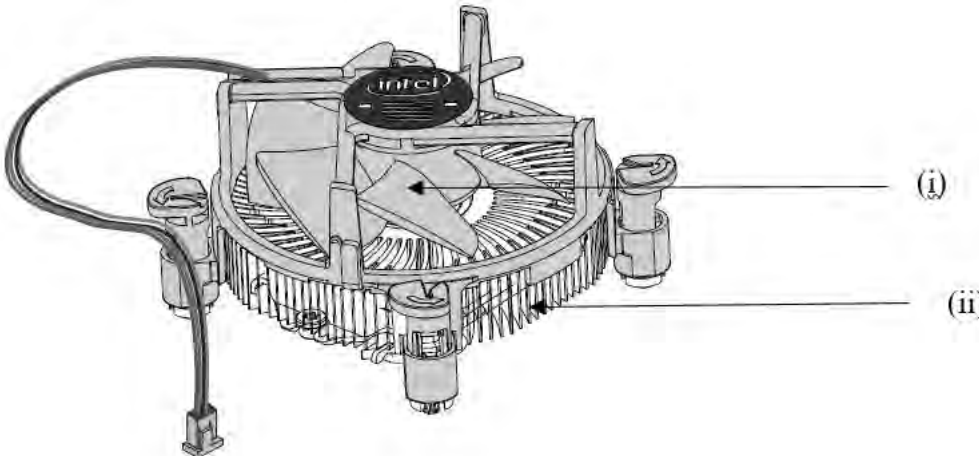


Figure 2

- A. (i) Mouse (ii) Printer
 - B. (i) Speaker (ii) Mouse
 - C. (i) Monitor (ii) Mouse
 - D. (i) Keyboard (ii) Microphone
- (2 marks)

44. Figure 3 below shows part of a motherboard. Identify the parts labeled (i) and (ii).



- A. (i) Fan (ii) Base
 - B. (i) Fan (ii) Heat sink
 - C. (i) CPU (ii) Fan
 - D. (i) Thermal paste (ii) Fan
- (2 marks)
45. Which one of the following tools can be used to clean RAM chips?
- A. Prophylaxis alcohol
 - B. Glass cleaner
 - C. Compressed air
 - D. Vacuum cleaner
- (2 marks)
46. Which one of the following cannot be classified as a reason why the computer system would not turn on?
- A. Faulty power supply unit
 - B. Faulty microprocessor
 - C. Faulty power cable
 - D. Faulty wall socket
- (2 marks)

47. Which one of the following describes the activity when computer users use their own experiences to help each other?
- A. Online support
 - B. User support
 - C. Help desk support
 - D. Peer support
- (2 marks)
48. Identify a circumstance under which a user could upgrade the computer processor.
- A. To increase the memory capacity of the computer
 - B. To enhance the processing speed of the computer
 - C. To enable a replacement of the motherboard
 - D. To allow for addition of more peripheral devices
- (2 marks)
49. The preventive maintenance that entails precautionary steps taken to protect a computer from the environment, such as using power-protection devices is referred to as _____.
- A. Active
 - B. Passive
 - C. Vibrant
 - D. Regular
- (2 marks)
50. Which one of the following **CANNOT** be classified as a system integration method?
- A. Integration by substitution
 - B. Integration by parts
 - C. Integration using functional identities
 - D. Integration by partial fractions
- (2 marks)
-



DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

TUESDAY: 5 December 2023. Morning 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 devices is **BEST** suited to store the operating system files?
A. USB
B. SSD
C. DVD
D. LCD (2 marks)
2. Joy complained that her laptop refused to turn off after shutdown using the start button. Which of the following is a possible cause of this problem?
A. Faulty or incompatible driver
B. A firewall on the computer
C. Sound quality on computer
D. Antivirus software installed (2 marks)
3. Which of the following is **FALSE** regarding cloud storage?
A. The cloud service provider will never run out of disk space
B. Users can share documents with others from anywhere
C. The cloud service provider is solely responsible for security
D. Data transfer rate is dependent upon the speed of Internet connection (2 marks)
4. The list below shows communication devices used with computer networks. Which one is **NOT**?
A. Router
B. Switch
C. Modem
D. Firewall (2 marks)
5. During the process of disassembling a computer, there is risk of static electricity. Which of the following physical devices cannot minimise static electricity?
A. Wrist strap
B. Grounding rod
C. Floor carpet
D. Workbench (2 marks)
6. Which of the following methods of providing support in a computing environment would be **BEST** suited for a banking hall with 20 tellers serving clients?
A. Online
B. Help desk
C. Peer
D. Lecture (2 marks)

7. Which of the following devices can be connected or disconnected to change the settings or configuration of a particular component?
A. Jumper
B. Socket
C. Plug
D. Switch (2 marks)
8. Working on a computer can cause health and safety issues. Which of the following methods **CANNOT** alleviate wrist pain?
A. Proper positioning of computer
B. Take frequent breaks
C. Going to the Gym
D. Use ergonomic keyboard (2 marks)
9. Joan's laptop is malfunctioning and the technician has traced the problem to a customer replaceable unit. Which of the following components is a customer replaceable unit?
A. Power supply unit
B. Motherboard
C. Hard disk drive
D. UPS (2 marks)
10. Which of the following is an inbuilt software diagnostic tool on Windows operating environment?
A. Reliability Monitor
B. Wi-Fi Analyser
C. Resource monitor
D. Performance Monitor (2 marks)
11. Rashid's computer has the following signs:
(i) Failing to boot
(ii) Random shutdowns
(iii) Overheating
(iv) Strange noises
Suggest the possible cause of this problem
A. Failing power supply unit
B. Failing hard disk
C. Failing processor
D. Failing motherboard (2 marks)
12. Which type of data security enables an organisation to hide data by concealing and replacing specific letters or numbers?
A. Masking
B. Encryption
C. Backup
D. Authentication (2 marks)
13. Below are some benefits of system integration. Which one is **NOT**?
A. Improved data accuracy
B. Improved security of data
C. Increased productivity
D. Faster decision-making (2 marks)
14. Select from the list below a method of system integration.
A. One-to-many
B. Point-to-point
C. Circular
D. Aggregation (2 marks)

15. Sally is considering upgrading the processor of a desktop computer. The new processor will have all the following **EXCEPT**?
- A. More cores
 - B. Higher clock speed
 - C. Higher socket size
 - D. More cache memory
- (2 marks)
16. James intends to dispose a number of old computers from his organisation. Propose one safe method he could use to dispose these computers.
- A. Give a Certified Recycler
 - B. Burning in open field
 - C. Thrown into water
 - D. Dumping in forest
- (2 marks)
17. Suggest the name of a user interface that leads a user through a sequence of small steps to configure a program for the first time.
- A. Tutorial
 - B. Wizard
 - C. Help
 - D. Manual
- (2 marks)
18. Which of the following is **NOT** a symptom of computer monitor failure experienced by users?
- A. Flickering
 - B. Black screens
 - C. Missing half screens
 - D. Loose pixels
- (2 marks)
19. For each of the scenario, state the most appropriate type of memory applicable:
- (i) Compensate for physical memory shortages by temporarily transferring data from random access memory to disk storage
 - (ii) Stores data that is frequently used by the processor
 - (iii) Data can be erased and reprogrammed repeatedly by applying an electrical voltage
 - (iv) Data is permanently stored in a chip
- A. (i) cache, (ii) RAM, (iii) EEPROM, (iv) ROM
 - B. (i) flash, (ii) ROM, (iii) EPROM, (iv) RAM
 - C. (i) CMOS, (ii) PROM, (iii) RAM, (iv) PROM
 - D. (i) BIOS, (ii) RAM, (iii) EPROM, (iv) ROM
- (2 marks)
20. During a training session, John decided to use a computer-based training method. Select from the list below a disadvantage emanating from using this method.
- A. Lack of trainee concentration
 - B. Low understanding of concepts
 - C. Lack of human interaction
 - D. Poor time management
- (2 marks)
21. Rajab was required to troubleshoot a computer that a malicious software disrupted its memory operations. Select the **MOST** probable type of computer virus that he identified.
- A. Resident
 - B. Boot Sector
 - C. Parasitic
 - D. Polymorphic
- (2 marks)
22. Suggest the name of technology that allows an operating system to detect and configure internal and external peripherals as well as most adapters as soon as they are connected.
- A. Installation
 - B. Plug and Play
 - C. Mounting
 - D. Interfacing
- (2 marks)

23. Below are some causes of data loss in computers, which one is **NOT**?
- A. Human error
 - B. Power outages
 - C. Strong password
 - D. Viruses and malware
- (2 marks)
24. Harry was required to repair a client's monitor. Select from the list below a hand tool he will **NOT** use on the job.
- A. Compressed air
 - B. Manufacturer manual
 - C. Needle-nosed pliers
 - D. Digital multi meter
- (2 marks)
25. Daughter boards are commonly used when assembling computers. Which of the following is **NOT** an example of daughter boards in computers?
- A. RAM DIMMs
 - B. Network cards
 - C. Graphics Cards
 - D. Motherboard
- (2 marks)
26. Which method of detecting memory errors adds a bit to the original data for checking errors at the receiver end?
- A. Parity
 - B. Non-parity
 - C. Bitwise
 - D. Hashing
- (2 marks)
27. Amani noted that some of the documents in his computer were encrypted and he was forced to pay a certain fee through Internet to decrypt the files. Identify this type of attack.
- A. Fileless
 - B. Adware
 - C. Ransomware
 - D. Spyware
- (2 marks)
28. Which of the following is **NOT** a type of computer maintenance?
- A. Predictive maintenance
 - B. Diagnostic maintenance
 - C. Preventive maintenance
 - D. Corrective maintenance
- (2 marks)
29. Which of the following statements regarding computer power supply is likely to be **CORRECT**?
- A. Laptop chargers are replaceable and meant to be interchangeable
 - B. It is necessary to fully discharge a laptop battery before charging it
 - C. Overheating the computer or AC adapter could cause system failure
 - D. An exhausted or drained battery can cause electric shock and injuries
- (2 marks)
30. Which of the following is an example of an entrapment technique used to snare intruders?
- A. Honey pot
 - B. Crackers
 - C. Zero day
 - D. Secure switch
- (2 marks)
31. Identify from the list below a type of backup that copies data to a location which is accessible when a computer does not have an internet connection?
- A. Central
 - B. Local
 - C. Online
 - D. Offline
- (2 marks)
32. Which of the following features saves data to the hard disk drive when the computer automatically shuts down because of a low battery condition?
- A. Shut down
 - B. Log off
 - C. Sleep mode
 - D. Hibernate
- (2 marks)

33. Which of the following laptop signals indicate that an AC adaptor is connected and the battery is charging?
A. Green light
B. Orange light
C. No light
D. Red light (2 marks)
34. A computer student recently came across the following message on his computer: “ERROR 0271: Check date and time settings”. What is the likely cause of this problem?
A. SSD battery
B. UPS battery
C. CMOS battery
D. SOAP battery (2 marks)
35. Suggest the **MOST** appropriate term for use of computer-based techniques such as hacking as a form of civil disobedience to promote a political agenda or social change.
A. Internet activism
B. Social activism
C. Hack attack
D. Hackathon (2 marks)
36. Which of the following may not be a possible cause of a dead laptop?
A. Motherboard problem
B. Power adapter problem
C. Faulty RAM
D. Multimedia failure (2 marks)
37. What is the purpose of disk cleanup utility feature in a computer?
A. Allows adding new hardware components to the computer system
B. Freeing up space on hard disk by deleting temporary files from device
C. Restoring data that has been physically damaged or corrupted or deleted
D. Places files and folders in their proper place after disk repair (2 marks)
38. Which of the following strategies **BEST** describe a method to continue functioning until normal computer operations are restored?
A. Business continuity plan
B. Backup and restore plan
C. Disaster recovery plan
D. Computer support plan (2 marks)
39. Which of the following controls may involve documenting an event or intrusion and providing evidence for subsequent action against the individuals involved?
A. Preventive controls
B. Detective controls
C. Corrective controls
D. Investigative controls (2 marks)
40. Which of the following is **NOT** a psychological effect of technology in health?
A. Isolation
B. Depression
C. Eyestrain
D. Anxiety (2 marks)
41. Which of the following is **NOT** an example of denial of service attack?
A. Man in the middle attack
B. Ping of death attack
C. DNS recursion attack
D. UDP flood attack (2 marks)

42. A user encountered the following error: “Operating system not found”.
Which of the following is a likely cause?
A. Type or RAM installed
B. Incorrect BIOS configuration
C. Language used in operating system
D. Network interface controller (2 marks)
43. Which of the following is not associated with online technical support?
A. 24/7 phone support
B. Chat support agents
C. Built-in troubleshooter
D. Electronic mail support (2 marks)
44. Which of the following ports is **MOST** suitable for connecting a printer?
A. HDMI
B. USB
C. VGA
D. PS/2 (2 marks)
45. The cost of lost productivity in hardware or software failures, causing the system to be unavailable for processing and user tasks is referred to as:
A. Maintenance
B. Support
C. Downtime
D. Training (2 marks)
46. Which of the following methods can fix a “PC not booting after a new processor is installed” issue?
A. Check graphics adapter
B. Testing the CPU fan
C. Updating the BIOS
D. Removing boot device (2 marks)
47. When printing student handouts, the printer displayed a red light blinking signal. Which of the following is **NOT** a possible solution to this problem?
A. Check paper supply
B. Check for paper jam
C. Check for low ink cartridge
D. Check the power source (2 marks)
48. In a computing environment, suggest the name for a single point of contact for users in need of technical support.
A. Help desk
B. Call center
C. Hotline
D. Helpline (2 marks)
49. Which of the following is **NOT** a possible cause of a monitor showing fuzzy images?
A. Resolution settings
B. Graphics drivers
C. Monitor brand
D. Damaged cable (2 marks)
50. Which of the following statements is **TRUE** about LCD and CRT monitors?
A. CRT monitors are energy efficient than LCD monitors
B. LCD monitors have a lower refresh rate than CRT monitors
C. CRT monitors have a larger viewing angle than LCD monitors
D. LCD monitors consume more power than CRT monitors (2 marks)
-



DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

SOLUTIONS

TUESDAY: 22 August 2023. Morning 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. Name the component of the system unit that contains the brain of the personal computer.
 - A. Hard drive
 - B. BIOS chip
 - C. Motherboard
 - D. Monitor(2 marks)

2. Which of the following correctly identifies the major components of central processing unit?
 - A. Arithmetic Logic Unit (ALU) and Control Unit
 - B. Control Unit (CU)
 - C. Registers
 - D. ALU, control unit, and registers(2 marks)

3. Which among the following is the fastest memory in a computer that holds information?
 - A. Register
 - B. Cache
 - C. Main memory
 - D. RAM(2 marks)

4. Which of the following is temporary storage used to hold data that is used for arithmetic and logical operations and storing its results?
 - A. ALU
 - B. PC (Program counter)
 - C. Accumulator
 - D. IR (Instruction Register)(2 marks)

5. Data moves in and out of the CPU through embedded pathways commonly known as _____.
 - A. Buses
 - B. Electronic wires
 - C. Lines
 - D. Cables(2 marks)

6. Which of the following are **NOT** input devices?
 - A. Keyboard, trackball, light pen
 - B. Barcode reader, OMR, OCR, MICR
 - C. Biometric sensor, scanner, touchscreen
 - D. Plotter, card reader, headphones(2 marks)

7. Which of the following is **NOT** a type of mouse?
A. Wireless mouse
B. Optical mouse
C. Mechanical mouse
D. Electromechanical mouse (2 marks)
8. Which of the following devices provide surge protection and battery backup power during a power outage?
A. BIOS
B. CPU
C. UPS
D. USB (2 marks)
9. What is the name of a temporary storage location attached to central processing unit for input and output operations?
A. Memory chip
B. Register
C. Buffer
D. Core (2 marks)
10. Which of the following is a memory permanently built into a computer?
A. RAM
B. ROM
C. CPU
D. CD-ROM (2 marks)
11. When disassembling system unit which of the following would be the first step?
A. Open the cover
B. Remove the system fan
C. Unplug the power
D. Removing the CPU (2 marks)
12. When disassembling a system unit which of the following would be the last step?
A. Remove the CPU fan
B. Remove the hard drive
C. Remove the motherboard
D. Remove the RAM (2 marks)
13. Tools are necessary in disassembling computer system unit, which of the following tools is widely used by technicians?
A. Anti-static wrist strap
B. Long nose plier
C. Foil
D. Screwdriver (2 marks)
14. Before starting computer disassembly, make sure to prepare the following tools **EXCEPT**:
A. Set of screwdrivers
B. Container for the screw
C. Computer Unit
D. Anti-static device (2 marks)
15. The integration structure that connects multiple apps in a single line, moving from the start of a process to the end of a process, frequently with the goal of consolidating the organisation's complete tech stack is referred to as?
A. Vertical integration
B. Point to point integration
C. Star integration
D. Horizontal integration (2 marks)

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16. Which of the following would be a logical first step in troubleshooting a personal computer?
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)
17. Which of the following 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)
18. You have a personal computer with no video display output. Which of the following is **LEAST** likely to be causing the problem?
A. Defective RAM
B. Defective microprocessor
C. Crashed hard drive
D. Loose video card (2 marks)
19. When connecting a ribbon cable to a connector, how do you know which direction to plug it in?
A. The red line in the cable goes to the highest pin number
B. The colored line in the cable goes to pin #1
C. It does not matter
D. The blue or red line in the cable goes away from the power connector (2 marks)
20. What is the first step in diagnosing a completely dead computer at the client 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)
21. A workstation has just been installed on an Ethernet LAN, but cannot communicate with the network. What should you check first?
A. Reinstall the network protocols
B. Reinstall the network interface card driver
C. Verify the IP configuration on the workstation
D. Verify the link status on the computer's network card (2 marks)
22. One of the major components of a personal computer is the Central Processing Unit, which can **BEST** be described as _____.
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 the of the Basic input/output routines are stored
D. The area where all of the processing takes place
23. How many pins does an IDE cable have?
A. 25
B. 50
C. 100
D. 40 (2 marks)
24. An important first step in troubleshooting a jammed laser printer is to _____.
A. Note where in the paper path the paper stops
B. Check all voltages
C. Look up to error codes
D. Turn the printer off, then on again (2 marks)

25. What should you replace if the brightness or contrast adjustments were malfunctioning on a laptop?
A. Fuse
B. LED display
C. Adjustment switch
D. LED display cable (2 marks)
26. The monitor power light is ON but the monitor screen is completely dark. The least likely cause of the problem is _____.
A. Defect in the computers video circuitry
B. Disconnected video cable
C. Defective monitor
D. System RAM problem (2 marks)
27. What is your first action when windows report that your hard drive is developing bad sectors?
A. Replace the hard drive
B. Run Sec-clean from DOS
C. Run defrag on the hard drive
D. Run scandisk with the "thorough" option (2 marks)
28. Which of the following controller would support an external CD-ROM drive?
A. ESDI
B. ARLL
C. MFM
D. SCSI (2 marks)
29. How many Direct Memory Access (DMA) channels are there in an AT class personal computer?
A. 8
B. 3
C. 4
D. 7 (2 marks)
30. Which of the following is a key requirement of every video card?
A. CMOS
B. RAM
C. CPU
D. UPS (2 marks)
31. 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)
32. Devices that are under control of a computer and are directly connected to it are said to be?
A. Off-line devices
B. On-line devices
C. IN gate devices
D. IF gate devices (2 marks)
33. What is the correct name for a silicon piece with an embedded circuit?
A. Chip
B. Circuit
C. Logical gate
D. Circuit network (2 marks)
34. Which of the following is an example of records online?
A. On removable media
B. Document files
C. Dedicated archive server
D. DVD drives (2 marks)
35. Which of the following will **NOT** help in secure disposal of data?
A. Keep records carefully

- B. Destroy the data
C. Destroy the device
D. Destroy access (2 marks)
36. Which cyber security principle states that security mechanisms should be as simple and small as possible?
A. Fail-safe defaults
B. Least privilege
C. Economy of mechanism
D. Open design (2 marks)
37. Which cyber security principle restricts initialisation of privileges whenever a subject or object is created?
A. Fail-safe defaults
B. Least privilege
C. Complete mediation
D. Open design (2 marks)
38. Select from the list below the process of retaining or keeping of data at a secure place for long-term storage.
A. Data archiving
B. Archival storage
C. Disposal of data
D. Backup (2 marks)
39. Which of the following statements focuses on the detection and prevention of sensitive data exfiltration and lost data?
A. Data loss measurement
B. Data stolen software
C. Data loss prevention
D. Data leak prevention (2 marks)
40. Suggest the name given to unauthorised movement of data.
A. Data exfiltration
B. Data infiltration
C. Data cracking
D. Database hacking (2 marks)
41. Which of the following statements correctly defines the term system integration?
A. One system into multiple program
B. Multiple systems into multiple program
C. Two systems into one program
D. Multiple systems into one program (2 marks)
42. Which of the following statements is **NOT** an advantage of system integration?
A. Improve system security
B. Real time data
C. An integrated future
D. Easier for administrators (2 marks)
43. Which of the following is **NOT** a type of data backup?
A. Full backup
B. Incremental backup
C. Mirror backup
D. Adaptable backup (2 marks)
44. All types of system integration are designed to automate activities and processes, synchronise data, and connect systems into a single entity. Which one of the following is **NOT** a type of system integration?
A. Enterprise Application Integration (EAI)
B. Security Integration
C. Data Integration (DI)
D. Electronic Document Integration (EDI) (2 marks)
45. Which type of integration testing does usage model testing belong to?
A. Big Bang
B. Top-down

- C. Bottom-up
D. Sandwich (2 marks)
46. Repetitive Strain Injury (RSI) is a problem that people experience and it affects _____.
A. Their backs
B. Their legs
C. Their necks
D. Their hands and wrists (2 marks)
47. Which of the following statements **BEST** explains the method of keeping the computer area safe from accidents?
A. Cables securely connected to the computer
B. All cables routed through overhead channels well above head height
C. All cables tied together
D. Cables kept tidy and secure, and not allowed to trail through any areas where people could walk (2 marks)
48. What is the **CORRECT** method for cleaning a computer monitor screen?
A. Clean the screen using hot soapy water and dry off with a soft lint free cloth
B. Clean the screen carefully with a specially prepared cleaning wipe and dry off with a soft lint free cloth
C. Clean the screen using cold soapy water and dry off with a yellow duster
D. Clean the screen using any proprietary window cleaning spray and dry off with a soft tissue (2 marks)
49. Which one of the following is an example of e-waste?
A. Nuclear waste, medical waste, toxic industrial waste
B. Plastic bags, cardboard boxes, corroded metals, etc
C. Beverage cans, packaged boxes, plastic bottles, etc
D. Cables, alarms, motherboards, TV (2 marks)
50. Suggest the **MOST** appropriate method for e-waste disposal.
A. Burning
B. Recycling
C. Disintegration
D. Landfilling (2 marks)

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DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

TUESDAY: 25 April 2023. Morning 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 an integrated circuit that serves as the primary component of all computing devices?
 - A. Silicon chip
 - B. Motherboard
 - C. Logical gate
 - D. Circuit network

2. The following are considered as most damaging things to a computer, **EXCEPT**?
 - A. Moisture
 - B. Static electricity
 - C. Dust
 - D. Cookies

3. A tool used to minimise the number of fragmented files and enhance the speed is known as?
 - A. Disk space
 - B. Defrag
 - C. Scan disk
 - D. Double space

4. Which of the following is a possible cause of paper jam in printers?
 - A. Incorrect loading of paper
 - B. Incorrectly installed cartridge
 - C. Printer out of toner
 - D. Dirty corona wire

5. Which of the following is an essential tool for cleaning a computer monitor?
 - A. Hydrogen peroxide
 - B. Lint-free cloth
 - C. Glass cleaner
 - D. All-purpose cleaner

6. Which of the following statement **BEST** defines data masking?
 - A. Refers to the process of replacing original data by using modified content to protect information
 - B. Refers to the process of altering data being input into a computer system then changing it back
 - C. Refers to the process of analysing data to reveal hidden patterns and trends in historical business activity
 - D. Refers to cleaning, transforming and cataloging data to be used for online analytical processing

7. What is the name of the most common symptom of a damaged laptop fan?
 - A. Brownouts
 - B. Rebooting
 - C. Overheating
 - D. Freezing

8. Which of the following faults is **NOT** associated with a faulty power supply unit?
- Electric shocks
 - Fan stops rotating
 - Corrupted drivers
 - Spontaneous rebooting
9. Which of the following is considered a safety risk during computer maintenance?
- Plug in the power supply into the wall outlet when working inside a computer
 - The best response to an accident is quick response by trained personnel
 - Organisations should have a formal incident reporting procedure for accidents
 - Keep all aisles and hallways free of cables that can cause customers to trip and fall
10. What is the name of the PC maintenance tool shown below?



- Adjustable wrench
 - Wire cutter
 - Crimping tool
 - Needle nose pliers
11. Which protocol provides authentication and encryption over the Internet?
- SET
 - SSH
 - IPSec
 - TCP/IP
12. Which one of the following is **NOT** a proper attire to wear when working with lab equipment?
- Non-static wrist strap
 - Gloves
 - Protective glasses
 - Open heel shoes
13. Which of the following works as an intermediary between a workstation user and the Internet for security purposes?
- Secret key
 - Firewall
 - Client server
 - Proxy server
14. Which of the following **BEST** describes digital signatures?
- A type of security used to secure passwords and ensure that they are not available for viewing
 - An electronic identification created using cryptography used to identify users in digital messages
 - An electronic identification used to encrypt and decrypt financial transactions on the Internet
 - An email protocol that authenticates the identity of both the sender and receiver to ensure privacy
15. Which part of a storage device does a boot sector virus infect?
- Partition tables
 - Floppy drive
 - Office documents
 - Computer memory
16. The following are viable reasons for conducting a computer audit, **EXCEPT?**
- To keep a record of changes made to user accounts and groups
 - To detect an intrusion using a password that has been stolen
 - To indicate a user who has forgotten their password
 - To determine whether a device is located on a remote network

17. A redundant site with infrastructure and basic utilities only used when a disaster occurs is known as?
- A. Cold site
 - B. Hot site
 - C. Warm site
 - D. Backup site
18. Which of the following can be used to revert a driver to the previously used one?
- A. System configuration utility
 - B. Uninstalling the device driver
 - C. Rolling back the device driver
 - D. Reinstalling the operating system
19. Which of the following measures is recommended before recycling electronic devices?
- A. Remove the optical drive
 - B. Installing the latest drivers
 - C. Erase data from the hard disk
 - D. Upgrade network cards
20. Which of the following is not a recommended tool for preventative maintenance?
- A. Compressed air
 - B. Lint free cloth
 - C. Static bag
 - D. Computer vacuum
21. Which of the following option is not a consideration when managing electronic waste?
- A. Redeem
 - B. Recycle
 - C. Reuse
 - D. Reduce
22. Which of the following is **NOT** found inside the system unit?
- A. Keyboard
 - B. Power supply unit
 - C. Network interface card
 - D. Random access memory
23. Which of the following is **NOT** a type of software maintenance?
- A. Perfective
 - B. Corrective
 - C. Adaptive
 - D. Progressive
24. What is the function of the personal computer maintenance tool shown below?



- A. To tighten or loosen screws.
- B. To hold extra computer screws, nuts and washers
- C. To unfasten clips and remove small wiring
- D. To cut the wire and strip the insulation material to uncover the wires

25. The following are benefits resulting from system integration, **EXCEPT**?
- A. Optimise business processes
 - B. Technological changes
 - C. Increased scalability
 - D. Enhancing analysis
26. Which of the statements below **BEST** describes a server?
- A. Software or hardware device that accepts and responds to requests made over a network
 - B. A group of two or more devices or nodes that can communicate
 - C. The fastest computer in the world that can process a significant amount of data very quickly
 - D. Any computer hardware or software device that requests access to a service provided by a server
27. A workstation has just been installed on an Ethernet LAN but cannot communicate with the network. What would be the first thing to check?
- A. Reinstall the network protocols.
 - B. Reinstall the network interface card driver.
 - C. Verify the IP configuration on the workstation.
 - D. Verify the link status on the computer's network card.
28. The process of keeping track by the Microsoft operating system of the contents on a hard drive is done by?
- A. File Allocation Table
 - B. File Access Table
 - C. File Index Table
 - D. File Transfer Table
29. Which of the following input device is used to convert pictures into a digital form?
- A. Keyboard devices
 - B. Drawing devices
 - C. Vision based devices
 - D. Digitizer devices
30. Which computer resource stores the software necessary to boot the computer?
- A. ROM BIOS
 - B. POST
 - C. boot.in
 - D. CONFIG.SYS
31. The process of retaining or keeping of data at a secure place for long-term storage is referred to as?
- A. Data archiving
 - B. Archival Storage
 - C. Disposal of Data
 - D. Backup
32. The process of changing the software in a flash memory chip is known as?
- A. Hardware repair
 - B. Firmware update
 - C. Hardware upgrade
 - D. Software maintenance
33. Which of the following is a simple way to fix many problems with USB devices?
- A. Buy a new device to replace the one which doesn't work.
 - B. Use a shorter cord.
 - C. Plug the device into the USB port upside down.
 - D. Run the device through a USB adapter to clean up the signal.
34. A computer displayed a strange message and on checking, no viruses were found. What would be the next thing to check?
- A. Firewall in case a hacker is trying to break into your computer.
 - B. BIOS in case Plug and Play disabled.
 - C. Computer memory (RAM) in case it's starting to fail.
 - D. Windows Updates for any patches that need installing.

35. Which of the following is **NOT** a valid way in which data integrity may be compromised?
- A. Human error, whether malicious or unintentional
 - B. Hardware repair and maintenance
 - C. Transfer errors, occurring during transfer from one device to another
 - D. Bugs, viruses/malware, hacking, and other cyber threats
36. What causes the error message "bad or missing operating system" at boot up?
- A. Missing or corrupt boot sector
 - B. Slave hard drive not powered up
 - C. A bad floppy drive cable connection
 - D. Hard disk drive is listed after removable devices in boot tab.
37. A collection of computers, network devices, peripherals, or other devices connected to allow data sharing is known as?
- A. Supercomputers
 - B. Firewire
 - C. Network
 - D. Firewalls
38. Which of the following are examples of e-waste?
- A. Nuclear wastes, medical wastes, toxic industrial wastes, etc.
 - B. Plastic bags, cardboard boxes, corroded metals, etc.
 - C. Beverage cans, packaged boxes, plastic bottles, etc.
 - D. Sensors, alarms, sirens, TV etc.
39. The act of intimidating, threatening, or coercing people online through the use of social media, email, text messages, blog posts, or other digital or electronic methods is known as?
- A. Cyber crime
 - B. Cybernetic
 - C. Cyberbullying
 - D. Cyber scanning
40. A communications centre that provides a single point of contact between an organization and its employees, customers, as well as business partners is known as?
- A. Service Desk
 - B. IT Centre
 - C. Reception area
 - D. Health Centre
41. Which of the following is **NOT** a mouse port?
- A. Serial port
 - B. Parallel Port
 - C. PS/2 port
 - D. USB port
42. The process of replacing or adding any new hardware to improve its performance is known as?
- A. Hardware upgrade
 - B. Hardware acquisition
 - C. Hardware cleaning
 - D. Hardware maintenance
43. The process of safeguarding digital information throughout its entire life cycle to protect it from corruption, theft, or unauthorised access is known as?
- A. Data encryption
 - B. Data masking
 - C. Data integrity
 - D. Data security

44. Which of the following peripheral devices will produce a hard copy?
A. Hard disk
B. Plotter
C. Monitor
D. Keyboard
45. What is the name of the connection point or interface between a computer and a peripheral device?
A. Connector
B. Ring
C. Bus
D. Port
46. Which of the following is a feature of non-impact printers?
A. They are noisy
B. They provide good quality printouts
C. They are cheap
D. They are slow
47. 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
48. The processor characteristic that allows a computer's CPU to lower its frequency for a time, prevent overheating, or save power is known as?
A. Firmware
B. Overclocking
C. Multiprocessing
D. Throttling
49. Which of the following is a good reason for ICT staff training?
A. Improves productivity at the work place
B. Supports the development of computer skills
C. Improves the financial status
D. Reduces staff turnover
50. A network of private computers that hackers have infected with malicious software is known as:
A. Rootkit
B. Botneck
C. Botnet
D. Keylogger

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DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

TUESDAY: 6 December 2022. Morning 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. Device drivers can be described by which of the following statements in computing technology?
 - A. Hardware that allows interaction between peripheral device and the operating system.
 - B. Software that allows the user to control the operating system
 - C. Software that allows interaction between peripheral device and the operating system.
 - D. Software that allows the user to control the operating system

2. Which one of the following is **NOT** a type of Read only Memory (ROM)?
 - A. Programmable read-only memory (PROM)
 - B. Erasable Programmable read-only memory (EPROM)
 - C. Electrically erasable programmable read-only memory (EEPROM)
 - D. Dynamic random access memory (DRAM)

3. Which of the following statement is **TRUE** about Static Random Access Memory (SRAM)?
 - A. Requires a recharge every few milliseconds to maintain its data.
 - B. Holds content as long as power is available
 - C. Can store many bits per chip
 - D. Generates less heat

4. Auxiliary storage is non-volatile memory used to store data and programs for later retrieval. Which one of the following would **NOT** be considered as a form of auxiliary storage?
 - A. Floppy Disk
 - B. Optical Disk
 - C. RAM
 - D. Flash Drive

5. Ms.Kendy came into a computer parts and service store looking for device to help a person with accessibility issues to input instructions into a laptop using a pen. Which of the following devices would you recommend to accomplish the required task?
 - A. Biometric scanner
 - B. Stylus
 - C. Keyboard
 - D. Fingerprint

6. IT Technicians use an anti-static wristband to ensure any static discharge has a way to go from themselves to the ground safely. Which of the following statements describes the proper use of an anti-static wrist strap?
- An anti-static wrist strap should not be used in conjunction with an antistatic mat
 - For optimum grounding, the clip should be attached to a painted section of the computer case
 - An anti-static wrist strap should make contact with the skin
 - The anti-static wrist strip should not be attached to any grounded object
7. The term given to the main circuit board of your computer where other components are attached so that everything in your computer works together is referred to as?
- Central processing unit
 - Power supply
 - Hard drive
 - Motherboard
8. Which one of the following can be used to determine if an additional hard drive can be added for additional storage space in a computer?
- RAM
 - ROM
 - PATA/SATA connection
 - BIOS version
9. A graphic designer wants to be able to perform fast when multitasking, have amazing graphics and large capacity to store information on a laptop. You have been advised to choose between two hard drives: solid state drive (SSD) or magnetic hard drive. Which choice would work best with his needs?
- The SSD because it is less expensive and has moving parts to read the information on the computer
 - The magnetic hard drive because it is less expensive and has moving parts to read the information on the computer
 - The magnetic hard drive because it is faster and offers additional stability
 - The SSD because it is faster and offers additional stability
10. Input device is a piece of equipment used to provide data and control signals to an information processing system. Which of the following device is considered an input device?
- Printer
 - Digital camera
 - Projector
 - Speakers
11. Identify among the following the component that would be used to connect motherboard through the use of a 24-pin connector
- PATA optical drive
 - SATA drive
 - Power supply
 - Video card
12. Motherboard allocates power and allows communication to and between the CPU, RAM, and all other computer hardware components. Which of the following component controls the communications and interactions between the CPU and other components on the motherboard?
- Chipset
 - BIOS
 - RAM
 - CMOS
13. Which of the following is the speed at which the spindle in a hard drive spins?
- gigabytes
 - revolutions per minute
 - pages per minute
 - clusters per minute

14. The processor holds both data and instructions while it is processing them using permanent storage.
- A. True
 - B. False
15. Which of the following statements BEST describes Central Processing Unit (CPU).
- 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 the of the Basic input/output routines are stored
 - D. The area where all of the processing takes place
16. Memory modules are computer chips used to add memory to a computer. Which memory technology allows two memory modules to be accessed at the same time?
- A. Dual channel
 - B. Double-sided
 - C. SRAM
 - D. ECC
17. A computer user called helpdesk and stated that monitor screen of the computer she is using is completely dark yet the power LED is on. What is least likely cause of the problem?
- A. Defect in the computers video circuitry
 - B. Disconnected video cable
 - C. Defective monitor
 - D. System RAM problem
18. When troubleshooting a laptop which of the following can be used to replace the brightness or contrast adjustments?
- A. Fuse
 - B. Led display
 - C. Adjustment switch
 - D. Led display cable
19. Identify among the following the first step to be taken 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
20. Which of the following is LEAST likely to be causing the problem of a PC with no video?
- A. Defective RAM (bank zero)
 - B. Defective microprocessor
 - C. Crashed hard drive
 - D. Loose video card
21. Which of the following is a term the BEST describes components that provide internal storage to the CPU ?
- A. Registers
 - B. Program Counters
 - C. Controllers
 - D. Internal chips
22. Which of the following category of software maintenance falls under the modification of the software to match changes in the ever-changing environment?
- A. Corrective
 - B. Adaptive
 - C. Perfective
 - D. Preventive

23. Troubleshooting is a systematic approach to problem-solving that is often used to find and correct issues. Which of the following step in the troubleshooting process is important to help avoid repeating repair processes that were performed previously?
- Implementation of the solution
 - Identification of the problem
 - Documentation of the problem and its solution
 - Preparation of a plan of action
24. Which of the following will help the processor to keep all of the data in sync because the data that it needs to calculate can be retrieved when it is needed.
- Faster RAM
 - Fast EIDE drive
 - Liquid cooling
 - High capacity external hard drive
25. What is the **MOST** likely cause of the problem when the computer clock keeps losing the correct time?
- The operating system needs to be patched
 - The motherboard clocking crystal is damaged
 - The CPU needs to be overclocked
 - The CMOS battery is loose or failing
26. Which of the following procedure is BEST practice when cleaning a computer?
- Remove the CPU before cleaning
 - Hold the CPU fan to prevent it from spinning and blow it with compressed air
 - Invert the can of compressed air while spraying
 - Clean the hard drive heads with a cotton swab
27. A colleague at work complains that opening a large document file is taking longer than usual. The IT support technician suspects that there might be a fault in the hard disk. What should the technician do next?
- Back up the user data from the workstation
 - Perform the disk cleanup procedure
 - Contact a data recovery company for service
 - Replace the hard disk with a new one to pinpoint the exact problem
28. Computer preventive maintenance should be taken into consideration by a company based on which of the following reasons?
- It provides an opportunity for junior technicians to obtain more experience in a non-threatening or problem environment
 - It helps to protect the computer equipment against future problems
 - It enables the IT manager to check on the location and state of the computer assets
 - It allows the IT department to regularly monitor the contents of user hard drives to ensure computer use policies are being followed
29. Which action should be taken to fix a computer that takes a long time to boot, where the BIOS rediscover all the hardware at every boot?
- Start the computer with the last known good configuration
 - Replace the CMOS battery
 - Reset the BIOS using the CMOS jumper
 - Launch Device Manager to discover new hardware
30. Juma a notable supplier to an institution reports that the antivirus software cannot obtain updates from the intranet. IT support technician notices that the license for the software expired. He adds a new license to the software and completes the update service. What is the probable cause of action the technician should undertake?
- Download advanced antivirus software from another vendor
 - Record the new license number in the log
 - Review the Event Viewer for the date and time that the last software update was performed
 - Run a full virus scan on the computer

31. Which of the following device is used to store charges in an electrical circuit?
- A. Capacitor
 - B. Transistor
 - C. Inductor
 - D. Ionic
32. Which of the following is made up of a wrist grounding strap?
- A. Surge protector
 - B. Capacitor
 - C. Voltmeter
 - D. Resistor
33. A keyboard is for putting information including letters, words and numbers into your computer. What product is used to clean smudged keys on a keyboard?
- A. TMC solvent
 - B. Silicone spray
 - C. Denatured alcohol
 - D. All-purpose cleaner
34. A port is the jack or receptacle for some other peripheral device to plug into. What tool is used to test serial and parallel ports?
- A. High volt probe
 - B. Cable scanner
 - C. Loop backs (wrap plugs)
 - D. Sniffer
35. Which of the following component would Electrostatic discharge (ESD) cause the MOST damage?
- A. Power supply
 - B. Expansion board
 - C. Monitor
 - D. Keyboard
36. IRQ (interrupt request) availability can be checked by looking at which of the following when installing PCI NICS?
- A. Dip switches
 - B. CONFIG.SYS
 - C. Jumper settings
 - D. Motherboard BIOS
37. IDE (Integrated Drive Electronics) is an electronic interface standard that defines the connection between a bus on a computer's motherboard and the computer's disk storage devices. Which of the following should be checked first when a new IDE hard drive has been installed but the system BIOS does not recognize the new drive?
- A. Cable sequence
 - B. Jumpers on the hard drive
 - C. Drivers that need to be loaded
 - D. Hard drive manufacturer web site information
38. What one of the following is the **BEST** ground for a conductive work bench?
- A. AC outlet
 - B. Ground to bend
 - C. To another device
 - D. Chassis ground
39. Power surges happen when there is a massive spike in your electrical system's current. Which of the following helps to curb power surge?
- A. Surge suppressor
 - B. Spike protector
 - C. UPS system
 - D. High-grade multi-meter

40. Which one of the following is an electrical component that allows the flow of current in only one direction?
- A. Capacitor
 - B. Diode
 - C. Transistor
 - D. Resistor
41. An Intern at a finance corporation was assigned a computer to troubleshoot. 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
42. Which one of the following is a computer cursor control device used in notebook and laptop computers?
- A. Trackball
 - B. Trackpad
 - C. Trackpoint
 - D. Lasermouse
43. Which one of the following practices is considered the **BEST** way to prevent damaging a computer with static electricity?
- A. Place your PC on a rubber mat
 - B. Wear leather soled shoes
 - C. Periodically touch a safe ground point on the PC to discharge yourself
 - D. Wear an ESD wrist strap
44. Which one of the following is a software program or a hardware device that filters all data packets coming through the network?
- A. Antivirus
 - B. Firewall
 - C. Cookies
 - D. Malware
45. Which of the following terminology relates to exploring the appropriate, ethical behaviors over the internet and digital media platform?
- A. Cyber law
 - B. Cyber ethics
 - C. Cybersecurity
 - D. Cyber safety
46. Which type of data backup copies all the files that have changed since the last full backup was performed?
- A. Differential backup
 - B. Full backup
 - C. Transaction log
 - D. Cobian backup
47. The component below works when the computer is off.



- A. True
- B. False

48. Which one of the following statement **BEST** describes integration testing?
- A. To verify that system is functioning according to specified requirements
 - B. To verify that system meets user expectation and needs
 - C. To verify that system separately testable modules are functioning properly
 - D. To verify that interfaces between different parts of system are working
49. A Medium sized Company decides to migrate from Windows 8 to Windows 11, which type of testing is done to ensure whether your software works on new platform?
- A. Interoperability testing
 - B. Portability testing
 - C. Usability testing
 - D. Performance testing
50. A technician noticed that the contacts on the adapter need to be cleaned when installing a network adapter into a client computer. Which solution should the technician use to clean the contacts?
- A. Isopropyl alcohol
 - B. Mild detergent
 - C. Slightly abrasive cleanser
 - D. Glass cleaner
-

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DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)
DIPLOMA IN COMPUTER NETWORKS AND SYSTEM ADMINISTRATION (DCNSA)
LEVEL I
INFORMATION SYSTEMS SUPPORT AND INTEGRATION

TUESDAY: 2 August 2022. Morning paper.

Time Allowed: 2 hours.

This paper is made up 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. Komu installed a new wireless mouse to use in his computer. He realised that the mouse does not work or is not detected after installation. Which one of the following is **NOT** a suitable solution?
 - A. Ensure the mouse is within the range of the receiver.
 - B. Replace the batteries in the wireless mouse.
 - C. Refer to the documentation that came with the mouse.
 - D. Clean the mouse using a cloth with cleaning agent.

2. The **MOST** effective means for a technician to prevent ESD (Electrostatic Static Discharge) damage when installing RAM is _____.
 - A. Touching grounded metal before contacting components
 - B. Ensuring the AC plug has a ground post
 - C. Wearing a grounded wristband
 - D. Wearing rubber-soled shoes

3. The following will **BEST** conserve resources and prolong equipment life, which one?
 - A. Firmware updates
 - B. Power Management
 - C. Disk Defragmenter
 - D. Clean with a lint-free clot

4. Which of the following interfaces can support the **MOST** devices per port?
 - A. USB 1.1
 - B. Bluetooth
 - C. IEEE 1394
 - D. RS-232

5. When should antistatic devices be used?
 - A. Replacing hardware.
 - B. Lifting heavy equipment.
 - C. Updating software.
 - D. Cooling equipment.

6. The following are units of memory storage capacity. Arrange then in ascending order of size.
 - I. GB
 - II. TB
 - III. KB
 - IV. MB
 - A. I, II, III, IV
 - B. II, I, IV, III
 - C. II, IV, I, III
 - D. III, IV, I, II

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7. Computer internal memory that is read /write is known as?
- ROM
 - Flash disk
 - RAM
 - DVD
8. Which one of the following is **NOT** a function of the device shown in the diagram below?



- Measuring temperature
 - Measuring voltage
 - Measuring resistance
 - Continuity test
9. A _____ is a small device that is used to check and diagnose a Power Supply Unit.
- Multimeter
 - Power supply tester
 - Anti-static tool
 - Pliers
10. Which of the following is **NOT** a safe method of cleaning a computer monitor?
- Dampen the microfiber cloth with preferably distilled water
 - Spray cleaning fluid directly onto the screen
 - Gently wipe the screen with the damp cloth
 - Wipe the monitor dry before plugging it back in
11. A personal computer has a dysfunctional USB port. Which one of the following is **NOT** a suitable solution that can fix this issue?
- Disable USB selective suspend
 - Restart the PC
 - Closed it up with a tape
 - Uninstall USB port driver
12. Blue Screen of Death (BSOD) can occur due to both software and hardware problems. Which one of the following is **NOT** a cause of BSOD?
- Corrupted drivers
 - Faulty keyboard
 - Faulty hard disk
 - Too much pressure on the RAM

13. Which one of the following is **NOT** a type of electronic waste?
- A. Computer Appliances
 - B. Monitoring Devices
 - C. Stationery
 - D. Medical devices
14. An _____ is the individual, group, organisational function or external service that an IT user calls to get support with a problem.
- A. information society
 - B. IT centre
 - C. health centre
 - D. help desk
15. Which one of the following is **NOT** a human health problem most highly associated with the use of computer equipment?
- A. Upper limb disorders
 - B. Loss of memory
 - C. Eye problems
 - D. Stress and fatigue.
16. _____ refers to moving a computer's processor speed beyond its normal operating range.
- A. Overdriving
 - B. Overpowering
 - C. Overclocking
 - D. Overlapping
17. Which one of the following is **NOT** an example of cyber bullying?
- A. Sending mean texts or IMs to someone
 - B. Bullying someone in the hallway
 - C. Being rude or mean to someone in an online game
 - D. Pretending to be someone else to spread hurtful messages online
18. The tool which should always be used when working on the inside of the computer is known as?
- A. Multimeter
 - B. Screwdriver
 - C. Antistatic strap
 - D. Crimping tool
19. Computer _____ is the practice of keeping computers in a good state of repair.
- A. Maintenance
 - B. Support
 - C. Repair
 - D. Processing
20. Which of the following printers uses toner to transfer an image onto paper?
- A. Inkjet
 - B. Laser
 - C. Impact
 - D. Thermal
21. The process by which multiple individual subsystems or sub-components are combined into one all-encompassing larger system thereby allowing the subsystems to function together is known as?
- A. System Integration
 - B. System development
 - C. System integrity
 - D. System compatibility

22. A printer port is a female connector, or port, on the back of a computer that allows it to interact with a printer. Which of the following is **NOT** a printer port?
- A. Parallel port
 - B. SCSI port
 - C. USB port
 - D. Serial port
23. Which of the following products will remove grease and grime from a variety of surfaces without the need for vigorous scrubbing and without leaving any residue behind?
- A. All-purpose cleaner
 - B. Distilled water
 - C. Silicone spray
 - D. Denatured alcohol
24. Which one of the following is the most commonly used pointing device on a laptop?
- A. Serial mouse
 - B. PS/2 mouse
 - C. USB mouse
 - D. Touchpad
25. Which of the following network cable types is **MOST** often used in environments where physical security of the data is the top priority?
- A. UTP
 - B. Coaxial
 - C. Fiber optic
 - D. STP
26. Which one of the following troubleshooting tool performs software tests during start-up?
- A. BIOS
 - B. CMOS
 - C. CPU
 - D. VDU
27. The contrast ratio for a LCD monitor is **BEST** defined as the ratio between:
- A. display resolution and brightness
 - B. power consumption and output intensity
 - C. power savings of a comparable CRT monitor and the LCD
 - D. the darkest and lightest displayed output
28. Mutonyi's desktop computer won't turn on. Advise him on the first thing that he should do?
- A. Disconnect and reconnect the monitor
 - B. Disconnect and reconnect the CPU
 - C. Change RAM
 - D. Make sure both monitor and CPU are connected and receiving power.
29. Software _____ is the process of scanning, identifying, diagnosing and resolving problems, errors and bugs in software.
- A. development
 - B. troubleshooting
 - C. maintenance
 - D. installation
30. Which one of the following is a hardware tool that can be used to diagnose and solve network issues?
- A. Multimeter
 - B. Plier
 - C. Wire Crimper
 - D. Screwdriver

31. _____ is a method of converting data from a readable format to an unreadable encoded format.
- A. Data encryption
 - B. Data masking
 - C. Data integrity
 - D. Data security
32. Select from the list below one which is NOT a suitable reason for upgrading computer hardware.
- A. Enhanced security
 - B. More prominent productivity
 - C. Managing electronic waste
 - D. Improved experience for workers
33. The process of verifying whether someone is who it is declared to be is known as?
- A. Authorisation
 - B. Availability
 - C. Non-repudiation
 - D. Authentication
34. Which one of the following **BEST** describes the term data confidentiality?
- A. It refers to protection of data from unauthorised access and disclosure.
 - B. It refers to encryption technology that encrypts data on a hard disk drive.
 - C. It is the process of protecting corporate data and preventing data loss through unauthorized access.
 - D. It is about protecting data against improper maintenance, modification, or alteration.
35. The _____ is a 25-pin computer interface commonly used to connect printers to the computer.
- A. serial port
 - B. parallel port
 - C. USB port
 - D. VGA port
36. Which one of the following **BEST** describes the function of a serial port?
- A. Allows a personal computer (PC) to transmit or receive data one bit at a time.
 - B. Allows a personal computer (PC) to transmit or receive data down multiple bundled cables to a peripheral device such as a printer.
 - C. Provides the exchange of data, and also to power or charge the devices connected.
 - D. Connects to a network and high-speed Internet.
37. Identify the best reason for updating computer hardware;
- A. To enable the corresponding devices to operate proficiently as well as to fix the bugs for better security
 - B. This is incorporated into the system to communicate with the outside and / or provide new functions.
 - C. To perform calculations and to carry out other computer operations.
 - D. To perform arithmetic and logic operations
38. Often times a simple hardware upgrade can remedy a sluggishly performing workstation or desktop. Which of the following is a suitable reason for upgrading a computer's motherboard?
- A. To increase data transfer speed.
 - B. To increase staff productivity
 - C. To train staff on the latest technology
 - D. To minimise power consumption
39. _____ helps protect important confidential information from being publicly disclosed.
- A. Hard drive wiping
 - B. Social Engineering
 - C. Classification
 - D. RAS server

40. A technician just finished installing a new printer on Bauni's computer. Select the procedure Bauni can use to enable him see the test page option for the printer.
- A. Right-click on the printer and select Properties
 - B. Double click on the printer icon
 - C. Right-click on the printer and select Set as Default
 - D. Right-click on the printer and select Open
41. The following methods are used by companies to manage e-waste **EXCEPT**?
- A. Repair and Upgrade
 - B. Recruiting skilled technicians
 - C. Donate
 - D. Recycle
42. Which of the following statements best describes data masking?
- A. protection of data from, and about, individuals and organisations; and how we ensure that data is not made available or disclosed without authorisation.
 - B. A technique that scrambles data to create a false copy for various non-production purposes.
 - C. protective digital privacy measures that are applied to prevent unauthorized access to computers, databases and websites.
 - D. The process or act of confirming that a user who is attempting to log in to a database is authorized to do so.
43. Restricted data is _____ .
- A. Data that is highly confidential in nature, carries significant risk from unauthorized access, or uninterrupted accessibility.
 - B. Made available to the public by the data steward and may be freely disseminated without potential harm.
 - C. Personal identifiable information that do not allow anyone to obtain it without permission
 - D. Information that is not openly shared with the general public but is not specifically required to be protected.
44. What are two proper care rules for the mouse?
- A. Handle gently and use on flat surface
 - B. Clean it in clean water and use it on a mouse pad
 - C. Handle it gently and wipe dust using soapy water
 - D. Eat snacks and drink beverages
45. System integration brings different programs together to function smoothly without interfering with each other or demanding identical actions from the users. Select from the list below a disadvantage of system integration.
- A. Accessibility, accuracy and coordination
 - B. Efficiency and productivity
 - C. Availability of new performance insights
 - D. Complex upgrading.
46. Gilo is a technician in Diong Academy. He has received several support requests from school caterer's PC located in the school cafeteria kitchen. The technician has reseated the PCI cards and replaced the hard drive in the PC. He has observed that PCs located in the Principal's office and Staffroom have not had this issue. Which of the following is **MOST** likely causing this PC's issue?
- A. Faulty RAM
 - B. 240 volt Kitchen outlets
 - C. Power Brownouts
 - D. Excessive Heat
47. Which one of the following is **NOT** a common health problem which can be associated with using a computer?
- A. Injuries to wrists caused by prolonged typing
 - B. Eye strain caused by screen glare
 - C. Flat foot pain
 - D. Back problems associated with poor seating or bad posture

48. What is the **FIRST** thing to do when identifying and troubleshooting a problem?
- A. Question the user and identify any user changes to the computer.
 - B. Establish a theory of probable cause.
 - C. Establish a plan of action to resolve the problem and implement the solution.
 - D. Test the theory to determine cause.
49. _____ is an umbrella term that describes the use of technology and science to reduce human impacts on the natural environment.
- A. Clean Technology
 - B. Information Technology Architecture
 - C. Green Information Technology
 - D. Geospatial Technology
50. Which one of the following is a proper care rule for the monitor?
- A. Clean it with enough water.
 - B. Don't spray with chemicals.
 - C. Avoid connecting direct power.
-



DIPLOMA DATA MANAGEMENT AND ANALYTICS

DIPLOMA LEVEL I

INFORMATION SYSTEMS SUPPORT AND INTEGRATION

TIME: 3HRS

INSTRUCTIONS: ANSWER ALL QUESTIONS. MARKS ALLOCATED TO EACH QUESTION ARE SHOWN

QUESTION 1

Which one of the following is a module that contains several random access memory (RAM) chips on a small circuit board with pins that connect to the computer motherboard.

- A. DIMM
- B. SIMM**
- C. SDRAM
- D. DDRAM

QUESTION 2

A client called customer care and reported her computer doesn't display images. Which one among the following is LEAST likely to be the cause of the problem?

- A. Defective RAM (bank zero)
- B. Crashed hard drive**
- C. Defective microprocessor
- D. Loose video card

QUESTION 3

Miss Zawadi was installing a new harddrive and saw the following message "invalid media device". Suggest a suitable solution to solve the problem.

- A. Format hard disk**
- B. Run fdisk
- C. Partition hardisk
- D. Install another operating system

QUESTION 4

Identify the statement that best describes Central Processing Unit (CPU).

- 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 ail the of the Basic input/output routines are stored
- D. The area where all of the processing takes place**

QUESTION 5

Which one of the following uses anti-static strap to make sure a technician doesn't become the least path of resistance to the ground?

- A. Capacitor
- B. Resistor**
- C. Diode
- D. Transistor

QUESTION 6

Harddrive is a non-volatile storage device. Which of the following is a type of computer hard drive?

- a) **Floppy disk drive (FDD)**
- b) Integrated drive electronics (IDE)
- c) Small computer system interface (SCSI)
- d) Enhanced Integrated Drive Electronics (EIDE)

QUESTION 7

The type of connector is used to plug a telephone line into a modem is known as _____

- a) COM1
- b) **RJ-11**
- c) RJ-45
- d) RJ-10

QUESTION 8

Power connectors p8 and p9 can be plugged into the system board. Which of the following statements is true?

- A. The black wires of both connectors should NOT be next to each other
- B. P8 and P9 don't plug into the system board
- C. **The black wires of both connectors should be next to each other**
- D. It doesn't matter which way you plug them in, the voltages are the same

QUESTION 9

Which of the following interrupt is reserved for floppy drive controller

- A. IRQ 1
- B. IRQ 4
- C. IRQ 5
- D. **IRQ 6**

QUESTION 10

Random access memory (RAM) is a high-speed component in devices that temporarily stores all information a device needs for the present and future. Which one among the following is NOT a type of RAM?

- A. Single Inline Memory Module (SIMM)
- B. Dual Inline Memory Module (DIMM)
- C. **Read Only Memory (ROM)**
- D. Single inline pin package (SIPP)

QUESTION 11

Which of the following statement best describes the term Bandwidth?

- A. The speed at which data can be transferred from the server to the client.
- B. **A measurement of how much information can be carried in a given period (usually a second) over a wired or wireless communications link.**
- C. A unit of information or computer storage is equal to one billion bytes.
- D. None of the above.

QUESTION 12

_____ is a type of port that communicates information to a peripheral device one bit at a time.

- A. **Serial port**
- B. Parallel port
- C. Optical port
- D. USB port

QUESTION 13

Identify the statement which BEST describes modem:

- A. **A device that allows you to connect your PC to an internet service.**
- B. A piece of computer software that is used to browse the web. (e.g., Internet Explorer)
- C. An interconnected group of computers.

- D. A program that prevents other people on the Internet from accessing your computer and your files.

QUESTION 14

_____ would help a technician set a multimeter to detect an AC ripple.

- A. **AC Voltage**
- B. DC Voltage
- C. Standard Voltage
- D. Watt

QUESTION 15

Combinations of keys can be entered one key at a time rather than by pressing two or more keys simultaneously.

This feature is most likely to BENEFIT one who:

- A. lacks confidence when using a keyboard.
- B. **is only able to use one hand when entering data with a keyboard.**
- C. needs to use the mouse rather than the keyboard for all tasks.
- D. uses an oversized keyboard because of a visual impairment

QUESTION 16

Which one of the following components interface directly with the motherboard Southbridge chipset?

- A. Video card
- B. RAM
- C. **Harddrive**
- D. PCI slot

QUESTION 17

Which type of memory retains data bits in its memory as long as power is being supplied?

- A. RAM
- B. **SRAM**
- C. DRAM
- D. ROM

QUESTION 18

Mr. Pepsua a long a human resource specialist is seeking an advice on how to get additional storage space on his older computer.

Which one of the following should he look for in order to add additional storage space to his old computer?

- A. Adequate Random-Access Memory.
- B. The version of Basic Input and Output system.
- C. The type of the hard drive.
- D. **The available PATA/SATA connection.**

QUESTION 19

Communication between the CPU and other Components in the motherboard is controlled by _____.

- A. **Chipset**
- B. RAM
- C. ROM
- D. CMOS

QUESTION 20

Computer cases can easily be a hazard to technician. When opening a computer case, which one of the following is considered a good safety precaution?

- A. Remove the cover of the computer case before removing other parts.
- B. **Place tape over the case edges that are sharp**
- C. Remove the connections to the front panel before extending the case fully open.
- D. Ensure that any loose clothing such as a tie or shirt stay in constant contact with the case when handling internal components.

QUESTION 21

Electrostatic discharge (ESD) is a sudden and momentary flow of electric current between two electrically charged objects. Which one of the following scenarios increases the likelihood of ESD damage to a computer?

- A. Using a magnetic screwdriver while working on a hard drive
- B. Plugging a printer into an UPS
- C. Working in low levels of humidity**
- D. Self-grounding against the computer case

QUESTION 22

Identify a cleaning solution recommended to clean the contacts of computer and its peripherals.

- A. Glass cleaner with ammonia
- B. Water mixed with a small amount of dishwashing liquid
- C. Hydrogenated Peroxide
- D. Isopropyl alcohol**

QUESTION 23

Which is a BIOS security feature that ensures devices will only boot a trusted operating system?

- A. Secure boot**
- B. Secure drive
- C. Drive encryption
- D. RAID

QUESTION 24

What action should be taken to correct the situation where the configuration settings of the computer have been reset every time it is turned on?

- A. Replace the motherboard.
- B. Replace harddrive.
- C. Replace the CMOS battery.**
- D. Replace the power supply.

QUESTION 25

Ziocke computing solutions have done repairs to computers of their client. Identify the step in the troubleshooting process where they demonstrate to the client the way the solution corrected the problem.

- A. Verify full system functionality.
- B. Establish a plan of action to resolve the problem.
- C. Document the findings, actions, and outcomes.**
- D. Establish a theory of probable cause.

QUESTION 26

Which one of the following is used to ensure integrity of data?

- A. SSL
- B. MD5**
- C. TLS
- D. Checksum

QUESTION 27

Which security technique should be used to protect a computer against spyware?

- A. Two factor Authentication
- B. Antimalware**
- C. Intrusion detection system.
- D. Intrusion prevention system.

QUESTION 28

Which one of the following is NOT a responsibility of a help-desk technician?

- A. Manage Help Desk tickets in a timely manner.
- B. Provide customer assistance.
- C. Run diagnostics to resolve customer reported issues.
- D. Managing, Licensing and updating hardware and software assets.**

QUESTION 29

Identify a motherboard component that controls the system boot operation.

- A. **UEFI**
- B. Northbridge chip
- C. Southbridge chip
- D. CPU

QUESTION 30

Amount of data received by the CPU can be limited by which one of the following.

- A. Usage of CPU virtualization.
- B. The width of the front side bus
- C. The amount of RAM installed
- D. **The size of the CPU cache memory**

QUESTION 31

Access control is a method of restricting access to sensitive data. Which component of access control specifying access rights or privileges to resources.

- A. **Authorization**
- B. Authentication
- C. Access
- D. Audit

QUESTION 32

Which one of the components below is not housed inside a computer system unit?

- A. Motherboard.
- B. Hard Drive
- C. Power Supply
- D. **Mouse**

QUESTION 33

What is the device that provides additional memory and data for image and video viewing without limiting the available processing power required for other programs?

- A. Monitor
- B. Memory card
- C. **Video Card**
- D. RAM chip

QUESTION 34

Which one of the following is used to illustrate the role of compressed air in cleaning a computer?

- A. **Blowing out dust from inside and outside the computer.**
- B. Germs from your computer.
- C. Suck out the dust and other debris that can get inside of your computer.
- D. Wipe down any surface of your computer.

QUESTION 35

_____ is used to put all the data in sequence in order to make it easier for the hard drive to quickly access it leading to faster file startups.

- A. **Defragmentation tool**
- B. Compression tool
- C. Antivirus tool
- D. Disk space analysis tool

QUESTION 36

_____ is an electronic tool used to measure voltage, amps and resistance across circuits.

- A. **Multimeter**
- B. Voltmeter
- C. Ammeter
- D. Ohmmeter

QUESTION 37

Which of the following is NOT included in a good standard operating procedure for maintenance?

- A. Directions for performing the job that are clear, concise and can be understood by a trained employee.
- B. Guidelines to follow after completing the work, including how to return to normal operation and what details need to be reported or recorded in files.
- C. **Details of the technician in charge of the maintenance operations and durations allowable for the various tasks.**
- D. A list of potential issues or problems that could occur and the normal troubleshooting steps and solutions to apply.

QUESTION 38

What is the purpose of an anti-static wrist band?

- A. **To safely provide a way for static electricity to dissipate without causing electrostatic damage.**
- B. To clean a computer from dust and dirt inside the computer
- C. To wipe dampness in a computer
- D. To protect the technician from heat and injuries while working on the computer components.

QUESTION 39

Cleaning the inside of a computer monitor is NOT advisable because _____?

- A. **It may retain a high voltage even when unplugged.**
- B. To avoid damaging the monitor electronics.
- C. It is too complicated for general repair.
- D. It is not meant for repair but to be discarded if defective.

QUESTION 40

_____ to get rid of sticky keyboard keys.

- A. **Pop off the keys and clean the keyboard more thoroughly.**
- B. Use isopropyl to kill germs.
- C. use a small soft-bristled dusting brush.
- D. Throw away the defective keyboard.

QUESTION 41

Which one of the following is NOT a method that can be used to identify and resolve computer hardware failure issues when using an operating system?

- A. Checking the hard drive
- B. Checking the memory
- C. Checking the power supply
- D. **Checking the processor**

QUESTION 42

Suggest the most suitable reason why a computer could be running very slowly.

- A. The computer is growing older and becoming obsolete.
- B. **The hard drive is beginning to fail.**
- C. The computer has power problems
- D. The software is defective

QUESTION 43

A suitable solution of dealing with a blank monitor would be?

- A. **Tighten the video cable.**
- B. Restart a computer.
- C. Clean the monitor.
- D. Throw away the monitor.

QUESTION 44

Identify one way that you can upgrade a personal computer to improve its performance.

- A. **Upgrade graphics card**
- B. Upgrade keyboard
- C. Upgrade to a new printer
- D. Upgrade mouse

QUESTION 45

Which of the following is NOT a suitable way of reducing electronic waste and its hazards to the environment?

- A. Sell old Electronics
- B. Learn to Repair Broken Electronics at Home
- C. Avoid using electronic equipment**
- D. Rent Electronic Equipment instead of Buying

QUESTION 46

_____ should be attached to you when working inside computers.

- A. Antistatic mat
- B. Antistatic wrist strap**
- C. Computer gloves
- D. Antiglare lenses

QUESTION 47

Which one of the following is used to connect harddrives, optical drives or other devices

- A. Molex**
- B. Berg keyed Connector
- C. 4-pin to 8-pin auxiliary power connector
- D. Advanced technology (AT)

QUESTION 48

_____ provides location to connect other components

- A. Central Processing Unit (CPU)
- B. BIOS Chip
- C. Expansion slot**
- D. Random Access Memory (RAM)

QUESTION 49

Which one among the following is an example of passive cooling?

- A. Land grid array
- B. Heat sink**
- C. Pin grid array
- D. Case fan

QUESTION 50

Error correction code can contain multiple bit errors

- A. True
- B. False**

QUESTION 51

_____ uses one cable to access high-speed and high-resolution media using one port with a cable

- A. High Definition Multimedia Interface (HDMI)
- B. Digital Visual Interface (DVI)
- C. Thunderbolt**
- D. Universal Serial Bus

QUESTION 52

A company is building a new secure data centre and wants to limit access by authorised personnel. What would be the best type of input device to use to limit access?

- A. Biometric device**
- B. Barcode scanner
- C. Magstripe reader
- D. Keyboard

QUESTION 53

_____ refers to specialized memory for servers and high-end workstations that use a large amount of random access memory (RAM).

- A. Unbuffered Memory
- B. Buffered Memory**
- C. Cache Memory

D. Dynamic Random Access Memory

QUESTION 54

When installing an hard disk drives (HDD) or Solid State Drive (SSD), the connectors should face the front of the case.

- A. **True**
- B. False

QUESTION 55

Modern Motherboard provide the IDE interface for internal storage devices

- A. True
- B. **False**

QUESTION 56

In installation where CPU cooling is important, hard disk drives (HDD) are preferred for storage.

- A. True
- B. **False**

QUESTION 57

Which one of the following is **NOT** an external storage factor?

- A. Port type
- B. Storage capacity
- C. Speed
- D. **Cost**

QUESTION 58

_____ performs a hardware check on the main components to check if the computer hardware is function properly.

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

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QUESTION 59

Which type of access level ensures all screens and settings are available, EXCEPT the supervisor password setting.

- A. Limited Access
- B. **Full access**
- C. View Only Access
- D. No Access

QUESTION 60

_____ a security feature that reports device information and location to a monitoring centre.

- A. Legacy boot
- B. Flashing the BIOS
- C. Secureboot
- D. **LoJack**

QUESTION 61

Which of the following statements best describes the term overclocking?

- A. This is used by AMD to enhance the performance of their CPUs.
- B. **This sets your CPU to run at speeds higher than originally designed by the manufacturer***
- C. This incorporates more than one CPU core into a single chip
- D. GPU fan.

QUESTION A62

_____ Refers to a place to view questions and answers to specific computer-related technical issues they have encountered.

- A. Notes
- B. Journal
- C. Online forums and Chats**
- D. History of Repairs

QUESTION 63

A technician wants to consult to find instructions for updating the BIOS on a computer. Identify the website he can use to gather the information.

- A. CPU manufacturer
- B. Operating system develop
- C. Case manufacturer
- D. Motherboard manufacturer**

QUESTION 64

Mr. Ochieng'a a technician accidentally spills a cleaning solution on the floor of the workshop. Where can he seek find instructions on how to properly clean up and dispose of the product?

- A. The regulations provided by the local occupational health and safety administration
- B. The insurance policy of the company
- C. The local hazardous materials team
- D. The safety data sheet**

QUESTION 65

Miss Rahma IT manager received a complaint that one of her technicians was rude and disrespectful to a client. Which action by the technician most **likely** caused the client to complain?

- A. The technician interrupted a number of times to ask questions**
- B. The technician ended the call without saying 'Have a nice day'
- C. The technician occasionally confirmed an understanding of the problem
- D. The customer was escalated to a level-two technician.

QUESTION 66

Mr. Wayne was explaining a problem he encountered on his computer to a technician. The technician recognized the problem prior to my Wayne finishing the explanation. What should the technician do?

- A. Ask the customer to repeat the problem so that the technician can document it and verify all the facts.
- B. Start working on the PC while listening to the customer at the same time.
- C. Wait politely for the customer to finish explaining the problem**
- D. Interrupt the customer and let the customer know that the technician knows what the problem is.

QUESTION 67

Repetitive Strain Injury (RSI) is one of health problems that one can suffer due to the use information communication technology (ICT) devices incorrectly or for too long. Select a suitable way used to prevent it.

- A. Use a wrist rest.**
- B. Sit upright against the back rest.
- C. Tilt the computer screen so it is set just below your eye level.
- D. Keep your feet flat on the floor.

QUESTION 68

Identify a possible cause of eye strain and headaches among the users;

- A. Using a mouse for long periods.
- B. Working in a cramped workspace
- C. Dirt on the screen.**
- D. Not sitting upright in your chair.

QUESTION 69

Suggest a safety measure taken to prevent the **risk of the electrocution**.

- A. **Keep drinks away from equipment.**
- B. Hide wires in cable ducts.
- C. Tuck trailing wires under desks or carpets.
- D. Don't plug too many devices into the same outlet.

QUESTION 70

A _____ tool which helps to attach the media connectors to end of the cables.

- A. **Crimper**
- B. Cable tester
- C. Cable certifier
- D. Punch down

QUESTION 71

Which one of the following is NOT a suitable method of purging junk files and programs?

- A. Run disk clean up software
- B. Empty the recycle bin
- C. Remove cache of offline web pages
- D. **Make a backup copy of files**

QUESTION 72

One of the common levels of data classification that are often found in an organization's data classification policy is internal data. Choose the best statement that describes internal data.

- A. Data that is open to the all.
- B. Data that is restricted to smaller teams within an organization.
- C. **Data that is considered only within an organization.**
- D. Data that is most sensitive in an organization and poses the largest risk if disclosed.

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QUESTION 73

_____ is broadly defined as the process of organizing data by relevant categories so that it may be used and protected more efficiently.

- A. Data security
- B. **Data classification**
- C. Data protection
- D. Data integrity

QUESTION 74

Data stored in an organization may have to be destroyed after a certain period of time. Which one of the following methods is best suited to destroy hard disks?

- A. By degaussing
- B. **By shredding it into tiny pieces**
- C. By destroying the decryption keys
- D. By throwing hard disk away.

QUESTION 75

_____ is the process of modifying sensitive data in such a way that it is of no or little value to unauthorized intruders while still being usable by software or authorized personnel.

- A. Data security
- B. Data masking**
- C. Data privacy
- D. Data integrity

QUESTION 76

Which one of the following is **NOT** a good indicator that a computer has Random Access Memory (RAM) problems?

- A. Diminishing Performance of your System
- B. Frequent Crashes
- C. Video Card is not loading**
- D. Computer not booting

QUESTION 77

Which one of the following is **NOT** a good indicator that an existing computer requires replacing?

- A. Computer is running slowly**
- B. Price of the components needed to be replaced is approaching the cost of a new computer
- C. Current computer is more than eight years old
- D. Compatible parts not available

QUESTION 78

Identify how a USB device receives its power.

- A. Through a power cable.
- B. Directly from the computer's power supply.
- C. From an external power supply.
- D. Through the USB cable.**

QUESTION 79

Among the statements below, which one is NOT true about motherboard?

- A. also called a system board
- B. has a CPU socket
- C. has slots for DIMMs
- D. Cannot work independently.**

QUESTION 80

_____ are secret words or numbers used for protection of devices.

- A. biometrics data
- B. backup
- C. passwords**
- D. private words

QUESTION 81

_____ is the practice and precautions taken to protect valuable information from unauthorized access, recording, disclosure or destruction.

- A. Network Security
- B. Information privacy
- C. Information Security**
- D. Physical security

QUESTION 82

ICT Guideline is a systematic approach of controls to policies required to be formulated for ensuring usage of information and ICT systems. Changing password as a policy after a definite period of time improves _____ of the network.

- A. Performance
- B. Reliability
- C. Security**
- D. Consistency

QUESTION 83

A human resource manager opened his PC and the boot process stopped giving the following error message: "Non-System disk or disk error ... Replace and press any key when ready". What could be the MOST cause of the error.

- A. A non-bootable CD/DVD Drive.**
- B. The ROM 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 84

Which statement BEST describes the significance of a "beep" 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

QUESTION 85

Troubleshooting often involves the process of elimination, where a technician will follow a set of steps to determine the problem or resolve the problem.

- A. TRUE**
- B. FALSE

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QUESTION 85

Identify the type of system board that is suitable for processor upgrading to ensure maximum performance and future compatibility.

- A. ML
- B. PCI**
- C. ISA
- D. EISA

QUESTION 86

_____ refers to "red book", "yellow book", and "orange book".

- A. SCSI
- B. IDE
- C. floppy drive technology
- D. CD-ROM standards**

QUESTION 87

What would the next probable step when configuring a hard drive after formatting.

- A. Format DOS partition**

- B. Install operating system
- C. Configure DMA channel and back-up interrupt
- D. Partition hard disk

QUESTION 88

A tool is used to test serial and parallel ports is known as _____?

- A. high volt probe
- B. cable scanner
- C. loop backs**
- D. sniffer

QUESTION 90

_____ is the highest binary number that can be referred on a three-position jumper block

- A. 4
- B. 6
- C. 3
- D. 1**

QUESTION 91

A technician received the following numeric error code check "A 17xx". This shows a problem with _____

- A. CMOS
- B. ROM BIOS
- C. DMA controller
- D. Hard drive or controller**

QUESTION 92

Which one of the hard drives provides the fastest access to huge video files?

- A. SATA
- B. IDE hard drives
- C. SCSI hard drives**
- D. EIDE hard drives

QUESTION 93

A female connector on your computer with a 25 pin will be typically be:

- A. Serial port
- B. parallel port**
- C. Docking
- D. COM port

QUESTION 94

Which of the following statements describes memory test during boot-up:

- A. Is a superfluous step that should be ignored
- B. Checks and verifies that contiguous memory is installed**

- C. Is an operational error
- D. Displays what memory is installed, but nothing else

QUESTION 95

Incorrect CMOS settings cannot be cause a disk error

- A. True
- B. False**

QUESTION 96

A customer has made a call to the helpdesk complaining her system that periodically locks up. After interrogation with the helpdesk team they realise the problem is not a software but hardware issue. Based on the scenario above what should the helpdesk team advise the customer to do to avert the problem?

- A. Rotate the RAM
- B. Replace the CPU
- C. Replace the level 2 cache SIMM
- D. Disable the CPU cache in CMOS**

QUESTION 97

_____ is regarded as the best way to protect hard drive data.

- A. Regular backups**
- B. Defragmentation
- C. Run chkdsk
- D. Run a regular diagnostic

QUESTION 98

Which of the following devices is used to prevent damage to electronic equipment from voltage "spikes" called transients.

- A. Surge suppressor**
- B. Spike protector
- C. UPS system
- D. High-grade multi-meter

QUESTION 99

A technician good Interpersonal competency may have little impact on the working relationship with customers.

- A. TRUE
- B. FALSE**

QUESTION 100

When troubleshooting a computer, which one of the following is considered to be a logical first step?

- A. Check the computer CMOS
- B. Identify the TCP/IP stack
- C. Define the circumstances of the problem**
- D. Define what applications are being used