

e. What are two reasons for installing a second hard disk drive inside an existing computer? (Choose two.)

- A. to support a RAID array
- B. to store BIOS configuration settings
- C. to store the system swap file
- D. to increase CPU speed
- E. to allow access to a secondary display output

f. Which condition refers to a reduced voltage level of AC power that lasts for an extended period of time?

- A. brownout
- B. sag
- C. spike
- D. surge

g. What should a technician do before beginning any troubleshooting steps on a customer computer?

- A. Perform a data backup.
- B. Document the findings.
- C. Identify the problem.
- D. Establish a plan of action.

h. An employee reports that the output of a workstation display is distorted. The technician checks the manufacturer website and downloads the latest version of the video driver. After the video driver is installed, what should the technician do next?

- A. Schedule the next system checkup with the employee.
- B. Log the previous and current version numbers of the video driver.
- C. Move the display card to another slot to see if the video performs better.
- D. Open a video editing application to verify the video performance.

i. What are three benefits of computer preventive maintenance? (Choose three.)

- A. elimination of the need for repairs
- B. improvement in data protection
- C. extension of the life of components
- D. reduction in the number of equipment failures
- E. time savings for technicians making repairs
- F. improvement in RAM access time

j. A customer brings a laptop into a computer repair shop. The technician can tell that the laptop is powered on by the power light, but nothing displays on the screen. What are two possible issues that could cause this symptom? (Choose two.)

- A. The backlight needs adjusting.
- B. The display properties need adjusting.
- C. The laptop has gone into sleep mode.
- D. The screen cutoff switch needs cleaning or is damaged.
- E. The video cable is loose.

k. What is the purpose of a digitizer in a mobile device?

- A. to convert AC to DC
- B. to convert analog video signals to digital ones
- C. to convert digital music to analog for headphone delivery
- D. to convert user touch actions to digital input signals

l. What are two probable causes for printer paper jams? (Choose two.)

- A. high humidity
- B. the wrong type of paper
- C. a defective print cartridge
- D. misaligned print heads
- E. an incorrect print driver

m. A college uses virtualization technology to deploy information security courses. Some of the lab exercises involve studying the characteristics of computer viruses and worms.

What is an advantage of conducting the lab exercises inside the virtualized environment as opposed to using actual PCs?

- A. The lab exercises are performed faster inside of the virtualized environment.
- B. The virtualization environment has better tools to develop mitigation solutions.
- C. Virus and worm attacks are more easily controlled in a virtualized environment, thus helping to protect the college network and its devices from attack.
- D. The viruses and worms will have limited functionality inside the virtualized environment.

SECTION B: ATTEMPT ANY TWO QUESTIONS FROM THIS SECTION

Question 2

(4 marks)

a. Explain the roles of the Northbridge and the Southbridge in a PC.

(10 marks)

b. Explain any FIVE functions of an operating system.

(6 marks)

c. List the steps in the troubleshooting process.

Question 3

(6 marks)

a. Outline any THREE factors to consider when choosing a power supply.

(4 marks)

b. List FOUR signs indicative of a failing internal storage device.

(2 marks)

c. How would you test if POST is working properly on a PC?

(8 marks)

d. List and briefly explain any FOUR security features found in the BIOS/UEFI systems.

Question 4

a. The secretary has called helpdesk to report her computer keeps locking up after running for a short while. List THREE possible causes, and for each the corresponding solution.

(6 marks)

b. What are the considerations when replacing a laptop battery? Give THREE.

(6 marks)

c. Outline any SIX common steps for determining causes of laptop problems.

(6 marks)

d. Besides cost of cartridges, give two other disadvantages of inkjet printers

(2 marks)

Question 5

a. Outline the advantages of

i. Local backups and

(6 marks)

ii. Cloud backups

(7 marks)

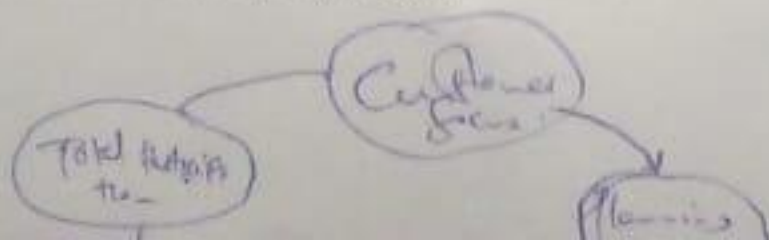
b. List the steps in laser printing process

c. Your company has set up a new branch in Kathonzwani County. You have 100 stand-alone PCs that require OS and applications installation. Outline how you would deploy disk cloning to speed up the task.

(5 marks)

d. What are two advantages of the NTFS file system compared with FAT32

(2 marks)



SECTION A

Attempt all questions in this section.

Question 1

- a. A customer comes into a computer parts and service store. The customer is looking for a device to help when repairing an airplane and that will allow the customer to see and interact with the repair manual at the same time. What device should the store owner recommend to accomplish the required task?
- A. AR headset
 - B. biometric scanner
 - C. keyboard
 - D. NFC device
- b. A technician is replacing a power supply. Which two factors should the technician consider when obtaining the replacement part? (Choose two.)
- A. type of case
 - B. input voltage level of 12 or 5 VDC
 - C. number of internal fans
 - D. output voltage
 - E. wattage



- c. Refer to the exhibit. In which section of the motherboard would a memory module be installed?
- A. section A
 - B. section B
 - C. section C
 - D. section D
- d. Which two factors must be considered when replacing old RAM modules in a PC? (Choose two.)
- A. The new RAM must be compatible with BIOS or UEFI.
 - B. The new RAM must be compatible with the motherboard.
 - C. The speed of the new RAM must be supported by the chipset.
 - D. The power supply must provide the voltage that is required by the new RAM.
 - E. The new RAM must match the old RAM in terms of capacity and speed.