

TIME: 1400-1455

DATE: 23<sup>RD</sup> APRIL, 2015

## Instructions

- i. Attempt all questions
- ii. All marks add up to 100%
- iii. Be precise and to the point
- iv. Ensure your work is readable

## Question one:

- a) Explain the following terms as applied to computers (10 marks)
  - i. Architecture
  - ii. Specification
  - iii. Coprocessor
  - iv. Shadow ROM
  - v. Throttling
- b) What is the purpose of the following items that are located on mother board? (9 marks)
  - i. System bus
  - ii. Expansion slots
  - iii. Chipset
- c) Differentiate the following terms (16 marks)
  - i. VGA from HDMI
  - ii. Von Neumann architecture from AMD architecture (diagrammatic explanation will add up marks)

## Question two

- a) What is the function of the following interface cards; RAID adapter, wireless NIC and SCSI adapter (6 marks)
- b) Explain in detail the three technologies commonly used in display subsystem. Describe five factors that determine monitor resolution. (14 marks)
- c) With examples explain three technologies for storage devices. (9 marks)
- d) Give the most correct answer out of alternatives given (4 marks)
  - i. Which of the following interface types is not commonly used to connect a mouse to PC?
    - A. USB
    - B. PS/2
    - C. IrDA
    - D. Parallel.
  - ii. Externally speaker systems commonly connect to a PC through a single jack that conforms to what PC standard?
    - A. PCMCIA
    - B. PC99
    - C. IEEE 1394
    - D. There is no standard for audio connections on a PC.
  - iii. What expansion bus has become the de facto standard for modern PC systems?
    - A. ISA
    - B. EISA
    - C. PCI
    - D. AGP
  - iv. To add external wireless network interface card to a notebook PC, what card standard is commonly used?
    - A. PCI
    - B. PC card
    - C. USB
    - D. FireWire

## Question three

- a) Explain the function of the following tools and give at least three examples for each (16 marks)
  - i. Cleaning tools — essential when maintaining or repairing computers — soft cloth, compressed air, cable ties
  - ii. Hand tools
  - iii. Diagnostics tools
  - iv. Disk management tools
- b) Differentiate BIOS from CMOS. Explain the three forms of BIOS. (8 marks)
- c) Give reasons that will force you to change BIOS settings. (8 marks)