



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2008/2009 – 1st Year Examination – Semester 1

IT1203 - Computer Systems I

07th March 2009

(TWO HOURS)

Important Instructions :

- The duration of the paper is 2 (two) hours.
- The medium of instruction and questions is English.
- The paper has 50 questions and 07 pages.
- All questions are of the MCQ (Multiple Choice Questions) type.
- All questions should be answered.
- Each question will have 5 (five) choices with one or more correct answers.
- All questions will carry equal marks.
- There will be a penalty for incorrect responses to discourage guessing.
- The mark given for a question will vary from 0 to +1 (*All the correct choices are marked & no incorrect choices are marked*).
- Answers should be marked on the special answer sheet provided.
- Note that questions appear on both sides of the paper.
- If a page is not printed, please inform the supervisor immediately.
- Mark the correct choices on the question paper first and then transfer them to the given answer sheet which will be machine marked. Please completely read and follow the instructions given on the other side of the answer sheet before you shade your correct choices.

1) What is/are the specific technology/ies used in Fourth Generation computers?

- | | | |
|------------------|--------------------|---------------------|
| (a) Vacuum Tubes | (b) Transistors | (c) Microprocessors |
| (d) ICs | (e) LSIs and VLICs | |

2) Which of the following was the first to introduce a 32-bit operating system?

- | | | |
|----------------|------------------|----------------|
| (a) Windows NT | (b) Windows XP | (c) Windows 95 |
| (d) Windows 98 | (e) Windows 2000 | |

3) Which of the following devices was/were developed by Herman Hollerith?

- | | | |
|-------------------------|-----------------------|-----------|
| (a) ADA | (b) Punch Card Reader | (c) ENIAC |
| (d) Differential Engine | (e) Analytical Engine | |

4) Which of the following devices was/were proposed by John Von Neuman, who introduced the stored-program computer concept?

- | | | |
|-------------------------|-----------------------|-----------|
| (a) EDVAC | (b) Punch Card Reader | (c) ENIAC |
| (d) Differential Engine | (e) Analytical Engine | |

5) Which of the following falls into the category of both an input and output device?

- | | | |
|--------------------------|----------------|-------------|
| (a) Touch Screen | (b) Plotter | (c) Scanner |
| (d) Multimedia Projector | (e) DVD Burner | |

6) Which of the following statements is/are true with respect to the Central Processing Unit (CPU)?

- | |
|---|
| (a) Registers hold data that can be readily accessed by the CPU. |
| (b) Arithmetic-Logic-Unit (ALU) and Control Unit (CU) are two principal parts of the CPU. |
| (c) ALU determines which actions are to be carried out according to the values in a Program Counter (PC) register and a status register |
| (d) ALU operations are controlled by the Control Unit. |
| (e) Control Unit sends signals to CPU components to perform sequenced operations. |

7) What is the text code originally used in personal computers?

- | | | |
|-------------|------------|--------------------|
| (a) EBCDIC | (b) ASCII | (c) Extended ASCII |
| (d) Unicode | (e) Binary | |

8) Which of the following has the correct acronym for Read/Write Optical Storage?

- | | | |
|-------------|-----------|------------|
| (a) CD-R | (b) CD-RW | (c) DVD+RW |
| (d) ROM-ROM | (e) DVD+R | |

9) Which of the following is a/are audiovisual device(s)?

- | | | |
|-------------------|-----------------|------------|
| (a) Microphones | (b) OCR Devices | (c) Webcam |
| (d) DVD camcorder | (e) Gamepad | |

10) Which of the following statements is/are true with respect to typical Bus transactions?

- | |
|--|
| (a) Physically, a bus is a group of conductors which allows all the bits in a binary word to be copied from a <i>source</i> component to a <i>destination</i> component. |
| (b) Buses move binary values inside the CPU between registers and other components. |
| (c) Buses are also used outside the CPU to copy values between the CPU registers and main memory and between the CPU registers and the I/O sub-system. |
| (d) Buses are transferring data from memory to CPU registers and not vice versa. |
| (e) Buses are transferring data for I/O reads and writes from peripheral devices. |

11) Which of the following fall into the category of (a) Cursor Movement key(s) on standard key board?

- | | | |
|---------------|------------|---------|
| (a) Page Down | (b) Home | (c) End |
| (d) Insert | (e) Delete | |

12) What is the colour of the Microphone *Mono In* port of a standard sound card?

- | | | |
|-----------|----------|------------|
| (a) Pink | (b) Blue | (c) Orange |
| (d) Green | (e) Gold | |

13) Which of the following can be used to accept written input?

- | | | |
|-----------|--------------|---------------|
| (a) Pen | (b) Stylus | (c) Tablet PC |
| (d) Mouse | (e) Keyboard | |

14) Which of the following printers is/are used to produce low-cost printed posters and handouts?

- | | | |
|--------------------------|------------------------------|-----------|
| (a) Thermal-Wax printers | (b) Ink-Jet | (c) Laser |
| (d) Plotters | (e) Dye-Sublimation printers | |

15) Which of the following can make it easier to perform using a wheel on the top of a scroll mouse?

- | | | |
|------------------------------|-----------------------|--------------|
| (a) Scroll through documents | (b) Select objects | (c) Dragging |
| (d) Change volume | (e) Zooming a picture | |

16) Which of the following is peripheral device(s) can be used to place your image into a live video conference?

- | | | |
|---------------|--------------------|------------------|
| (a) Webcam | (b) Digital camera | (c) Video camera |
| (d) Projector | (e) Scanner | |

17) Which of the following devices is used to produce 3-Dimensional display?

- | | | |
|------------------------|------------------------------|-------------------------|
| (a) Movie projector | (b) Digital projector | (c) Holographic display |
| (d) Overhead Projector | (e) Varifocal mirror display | |

- 18) Which of the following statements is/are true with respect to BIOS?
- | |
|--|
| (a) In modern systems, BIOS chips are also available on interface and adapter cards like the VGA card, SCSI adapter and Network interface card. |
| (b) Most modern day motherboard BIOS chips are EEPROMs, hence we could easily do a BIOS upgrade (Burn a newer version of the BIOS software). |
| (c) BIOS are the most prominent CMOS type chip in the computer system. |
| (d) BIOS settings configuration cannot be written into the BIOS chip since it is a ROM. |
| (e) The BIOS mainly consists of standard drivers for the primary input and output devices and other components like motherboard, memory and on-board interfaces. |
- 19) Which of the following is/are tested in a Power On Self Test (POST) program?
- | | | |
|---------------|--------------|-------------------|
| (a) Hard Disk | (b) Keyboard | (c) Video Adapter |
| (d) Processor | (e) CD-ROM | |
- 20) Which of the following can be categorized as (a) solid-state memory device(s)?
- | | | |
|-----------------|------------------------|----------------|
| (a) Hard Disk | (b) Flash Memory Drive | (c) MP3 Player |
| (d) Floppy Disk | (e) CD-RW | |
- 21) What is the format used to store data on a Holographic Versatile Disc?
- | | | |
|------------------------|----------------|-------------|
| (a) Blue Book | (b) Green Book | (c) Red-Ray |
| (d) Tracks and Sectors | (e) 3D Object | |
- 22) What is the mechanism used to read data from floppy drives, hard drives and tape drives?
- | | | |
|------------|-------------|---------|
| (a) Laser | (b) Sensor | (c) Pen |
| (d) Magnet | (e) Thermal | |
- 23) Which of the following can be categorized as (a) Holographic Versatile Disc standard(s)?
- | | | |
|-------------|--------------|------------|
| (a) HVD-ROM | (b) DVD±R/RW | (c) HVD-RW |
| (d) DVD+RW | (e) HD-DVD | |
- 24) Which of the following organizations established the standard for Small Computer System Interface (SCSI)?
- | | | |
|----------|---------|---------------|
| (a) ANSI | (b) IBM | (c) Microsoft |
| (d) IEEE | (e) ISO | |
- 25) Which of the following lists the location of files stored on a Hard disk?
- | | | |
|------------|-------------------|-----------------|
| (a) FAT | (b) Boot sector | (c) Root folder |
| (d) Kernel | (e) Disk registry | |
- 26) Which of the following is a/are Digital Video Disc (DVD) standard(s)?
- | | | |
|-------------|--------------|------------|
| (a) HVD-ROM | (b) DVD±R/RW | (c) HVD-RW |
| (d) DVD+RW | (e) HD-DVD | |

27) Which of the following technologies can be used for Processor Cache Memory?

- | | | |
|---------------|----------|----------------|
| (a) EEPROM | (b) SRAM | (c) DDR2 SDRAM |
| (d) DDR SDRAM | (e) DRAM | |

28) What are the differences between an EPROM and an EEPROM?

- | |
|---|
| (a) EEPROM is larger in size than an EPROM.
(b) Unlike EPROM, an EEPROM can be erased electronically.
(c) Unlike EPROM, an EEPROM can be erased using Ultra Violet light.
(d) If the writing is after manufacture, EPROM cannot be re-written, but EEPROM can be re-written only once.
(e) If the writing is after manufacture, EPROM cannot be re-written, but EEPROM can be re-written only once. |
|---|

29) Which of the following is a/special type of BIOS ROM with mechanism of flash BIOS capabilities?

- | | | |
|------------|--------------|----------|
| (a) EEPROM | (b) EPROM | (c) PROM |
| (d) FBROM | (e) True-ROM | |

30) Which of the following can be considered as (an) external storage device(s)?

- | | | |
|--------------|---------------------|--------------|
| (a) CD | (b) Hard Disk | (c) Zip Disk |
| (d) Juke Box | (e) XD Picture Card | |

31) Which of the following is a/special key element(s) of a PC motherboard's form factor?

- | | |
|------------------------------------|---------------------------------------|
| (a) Physical dimensions | (b) Power supply |
| (c) Number of available USB ports | (d) Placement of mounting screw holes |
| (e) Location of the processor slot | |

32) Which of the following wireless technologies is/are used to connect external devices to a computer?

- | | | |
|--------------|----------------|-------------|
| (a) Blue-Ray | (b) Blue-Tooth | (c) Red-Hat |
| (d) IrDA | (e) Wi-Fi | |

33) Which of the following is/are components of motherboard?

- | | | |
|--------------|----------------------|------------------|
| (a) RAM card | (b) Processor socket | (c) Power supply |
| (d) ROM BIOS | (e) Sound Card | |

34) Which of the following is/are buses available in a computer system?

- | | | |
|-------------------|-------------|-------------|
| (a) Processor bus | (b) PCI bus | (c) ISA bus |
| (d) AGP bus | (e) VGA bus | |

35) Which of the following expansion cards contains its own processor and a memory to improve performance level?

- | | |
|-------------------------------|--------------------|
| (a) Sound card | (b) Fire-wire card |
| (c) Graphics accelerator card | (d) Network card |
| (e) TV and video capture card | |

36) What is the latest version of AGP technology?

- | | | |
|---------------------|---------------------|---------------------|
| (a) AGP version 1.0 | (b) AGP version 2.0 | (c) AGP version 3.0 |
| (d) AGP version 4x | (e) AGP version 8x | |

37) Which of the following expansion cards is/are known as a 3D graphics accelerator?

- | | | |
|-------------------|-------------------------------|------------------|
| (a) Sound card | (b) Fire-wire card | (c) Network card |
| (d) Graphics card | (e) TV and video capture card | |

38) Which of the following components is/are needed for Plug and Play (PnP) to work?

- | | | |
|------------------|------------------------------------|----------------------|
| (a) PnP Hardware | (b) PnP BIOS | (c) PnP Power Supply |
| (d) PnP Memory | (e) PnP Supported Operating System | |

39) Which of the following interfaces can be used to connect a hard disk to a motherboard?

- | | | |
|-------------------|---------------------|---------|
| (a) Fiber Channel | (b) RJ-45 connector | (c) USB |
| (d) SCSI | (e) Wi-Fi | |

40) Which of the following operating systems was separated into two products: one designated for user workstation computers and the other, a network server.

- | | | |
|----------------|------------------|----------------|
| (a) Windows NT | (b) Windows XP | (c) Windows 95 |
| (d) Windows 98 | (e) Windows 2000 | |

41) Which of the following options in a software installation process allows users to select the components they wish to install?

- | | | |
|--------------|-------------|-------------|
| (a) Full | (b) Typical | (c) Network |
| (d) Standard | (e) Custom | |

42) Which of the following software is/are designed to be able to modify the source code of the programs?

- | | | |
|-----------------|-----------------|---------------|
| (a) Freeware | (b) Open Source | (c) Shareware |
| (d) Proprietary | (e) Compilers | |

43) Which of the following is a/are Personal Information Manager (PIM) software?

- | | | |
|--------------------------|-----------------------|-------------------------|
| (a) Microsoft Word | (b) Microsoft Outlook | (c) Microsoft Publisher |
| (d) Microsoft PowerPoint | (e) Microsoft Access | |

- 44) Which of the following brands is/are free and open source operating systems?
- | | | |
|------------|-------------|------------|
| (a) Debian | (b) Knoppix | (c) Ubuntu |
| (d) Apple | (e) Atari | |
- 45) Which of the following devices connects the computer to the network interface?
- | | | |
|------------|------------------|---------|
| (a) Cable | (b) Network Card | (c) Hub |
| (d) Router | (e) Switch | |
- 46) Which of the following factors is an/are advantage(s) in a network computer system?
- | | | |
|-----------------------|--------------------------|---------------------|
| (a) Enforce standards | (b) High reliability | (c) Data redundancy |
| (d) Resource sharing | (e) Remote Computability | |
- 47) Which of the following technologies allows a phone call to be routed over network wires?
- | | | |
|----------------------|----------------------------------|-------------------|
| (a) Teleconferencing | (b) Video-Conferencing | (c) Fast Ethernet |
| (d) Wi-Fi | (e) Voice Over Internet Protocol | |
- 48) From what has the term 'Wi-Max' been derived?
- | |
|---|
| (a) Worldwide Interoperability for Microwave Access |
| (b) Worldwide Interchangeability for Microwave Access |
| (c) Worldwide Interconnection for Microwave Access |
| (d) Worldwide Interconnection for Multi Access |
| (e) Wide area Interoperability for Microwave Access |
- 49) Which of the following transmission media is/are used as guided data communication media?
- | | | |
|---------------|------------------|-------------------|
| (a) Microwave | (b) Satellite | (c) Optical Fibre |
| (d) Coaxial | (e) Twisted Pair | |
- 50) Which of the following can be achieved through disk defragmentation?
- | | |
|------------------------------------|-----------------------------|
| (a) Improve CPU performance | (b) Clustering file formats |
| (c) Transfer data to a new format | (d) Eliminate duplicates |
| (e) Create additional empty spaces | |
