

CSE 1010e: INTRODUCTION TO INFORMATION TECHNOLOGY

SECTION A

*Multiple Choice Questions*

*Answer ALL Questions*

1. \_\_\_\_\_ allow(s) users to interactively send instructions (such as printing and closing a window) to a computer using graphical icons.
  - A. Commands
  - B. GUI
  - C. Printer
  - D. Keyboard
  
2. Which of the following statements is true?
  - A. L2 cache is faster than L1 cache
  - B. There are several levels of cache in a computer
  - C. The Internet can also be used as a cache memory
  - D. A cache hit indicates that the information we are looking for is not in the cache
  
3. How would you represent the decimal value of 30 in Hexadecimal?
  - A. 1E
  - B. 30
  - C. 1C
  - D. 11010
  
4. How is data represented inside the computer?
  - A. Logical System
  - B. Byte system
  - C. Binary system
  - D. Hexadecimal system

5. Which of the following storage devices allows access to information in a sequential mode?
- A. CD-R
  - B. DVD
  - C. Hard disk
  - D. Magnetic tape
6. Which statement is NOT a “special care” to ensure that data saved on your CD/DVD is preserved?
- A. Do not expose your CD/DVD to extreme temperature
  - B. Store them in their casing - any scratch makes it difficult to read through the reflective coating
  - C. Clean the CD/DVD with a brush, in an outward direction from the centre of the disk, avoiding circular movements, to remove dust
  - D. Do not write on the reflective coating of the CD/DVD and use only recommended marker for any labelling on the label side
7. Which one is best suited for use with paper of large size and for complex drawings in Computer Aided Design?
- A. Dot-Matrix printer
  - B. Laser printer
  - C. Pen plotter
  - D. Ink-Jet printer
8. Testing a program for any syntax or logic errors is known as
- A. double checking
  - B. editing
  - C. debugging
  - D. decoding
9. In programming, converting high level language into machine language is done by
- A. drivers
  - B. service programs
  - C. converters
  - D. translators

10. Which of the following is not an output device?
- A. Monitor
  - B. Touchscreen
  - C. Printer
  - D. Plotter
11. Which of the following printers are known to press characters or dots against an inked ribbon onto a paper by means of a mechanical head of retracting pins?
- A. Dot-matrix
  - B. Ink-Jet
  - C. Laser
  - D. Thermal
12. Which of the following types of mouse is a battery-powered device that transmits data using wireless technology such as radio waves or infrared light waves?
- A. Mechanical Mouse
  - B. Optical Mouse
  - C. Cordless Mouse
  - D. Trackball
13. The omission of a semicolon at the end of a statement in C++ is an example of a \_\_\_\_\_ error.
- A. loop
  - B. direct
  - C. calculation
  - D. syntax
14. Which of the following is NOT a 3<sup>rd</sup> generation programming language?
- A. ADA
  - B. Assembly Language
  - C. FORTRAN
  - D. Java

15. Which of the following is NOT a type of testing?
- A. Manual Testing with sample data
  - B. Testing sample data on the computer
  - C. Testing by a group of users
  - D. Sample Checking
16. How many bits are there in a KiloByte?
- A. 1024
  - B. 1000
  - C. 8024
  - D. 8192
17. Which of the following is the operation of replacing the BIOS instructions stored on the ROM by a set of more efficient ones?
- A. Clearing the BIOS
  - B. Deleting the BIOS
  - C. Flashing the BIOS
  - D. Changing the BIOS
18. Which of the protocols below is used for sending email
- A. FTP
  - B. SMTP
  - C. TCP/IP
  - D. HTTP
19. Which of the following is NOT a feature of a word processor?
- A. Borders and shading
  - B. Mail Merge and letter assistant
  - C. Macros
  - D. Sending email
20. An internal modem is usually connected to a computer via a(an)
- A. PCI slot
  - B. AGP slot
  - C. USB port
  - D. PCI Express slot

21. Which of the following gives a list of memory in increasing order (slow to fast) of speed access?
- A. RAM, Hard Disk, L1 Cache, L2 Cache
  - B. L1 Cache, RAM, Hard Disk, L2 Cache
  - C. Hard Disk, RAM, L2 Cache, L1 Cache
  - D. L1 Cache, L2 Cache, RAM, Hard Disk
22. The term “ Information Technology” can be summarized as:
- A. Computers + Connectivity
  - B. Computers + Network
  - C. Connectivity + Hardware
  - D. Hardware + Software
23. In which category of computers do desktop computers, notebooks (laptops) and Personal Digital Assistants (PDA’s) fall?
- A. Supercomputers
  - B. Mainframe computers
  - C. Mini computers
  - D. Micro computers
24. The purpose of an address book in an email package is:
- A. To attach an email signature to an email
  - B. To attach a file like a word document to a message
  - C. To keep a list of all contacts and their email addresses
  - D. To keep a list of previously visited URL’s
25. Which of the following is **NOT** a function of the Operating System?
- A. Process management
  - B. Memory management
  - C. Disk management
  - D. Database management

26. The BIOS stands for Basic Input Output System. It is found in the \_\_\_\_\_ of the computer and is the first piece of software that is run by the computer.
- A. RAM
  - B. ROM
  - C. CMOS
  - D. MBR
27. The translator that converts high-level languages, one statement at a time into machine code, before the programme is executed is
- A. BASIC
  - B. interpreter
  - C. query language
  - D. compiler
28. Which of the following is a characteristic of Solid State Storage devices?
- A. They have greater storage capacity than Hard disks.
  - B. They have no moving parts.
  - C. They consume a lot of power.
  - D. Data cannot be erased from them once written.
29. Current trends in the field of IT aim at providing wireless services to people while improving on the speed and storage space of existing computer systems. The term 'wireless services' means
- A. Reduction in cost of computers
  - B. Reduction in the size of computers
  - C. Increase of the memory of the computer
  - D. Without cables
30. Communication between computers is achieved by networking computers together using connecting devices and setting up of strict rules for communication to take place. These 'rules' are more appropriately termed as
- A. Protocols
  - B. Internet
  - C. Web
  - D. Browser

## SECTION B

### **Open-Ended Questions**

*Answer any TWO (2) questions*

#### **Question 1**

- (a) Compare and contrast between a compiler and interpreter.
- (b) Several methods have been devised for finding and removing both syntax and logic errors. List and briefly explain two such methods.
- (c) How is a Pseudocode different from a flowchart although both of them are structured programming techniques used when planning a solution to computer problems?
- (d) Below is a set of pseudocodes for a program that displays whether a student has passed or failed in a particular module, based on the mark inputted by the lecturer. Draw the corresponding flowchart.

Enter mark of student  
If mark is greater than 40, display PASS  
If mark is less than 40, display FAIL

- (e) Discuss the principal advantage(s) of natural languages if researchers are successful in developing them.

*[5\*2 marks]*

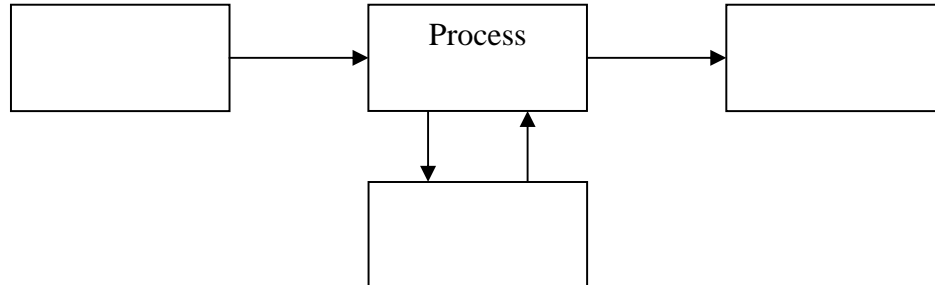
#### **Question 2**

- (a) Which type of computer (supercomputers, mainframe computers, minicomputers, microcomputers) will best suit an individual? Justify your answer.
- (b) Explain and differentiate between volatile and non-volatile memory, giving examples.
- (c) Differentiate between ROM, RAM and CMOS. You should stress on how these memory are used and how they operate.
- (d) Explain the mechanism and uses of a dot-matrix printer and an ink-jet printer.

*[2+2+4.5+1.5 marks]*

**Question 3**

- (a) Copy and complete the following block diagram representing a simple computer system.



- (b) Distinguish between **Applications software** and **Systems software** giving clear examples for each.
- (c) What does DBMS stand for and what are its main functions?
- (d) There are a few different possible categorizations for Operating Systems. One of the most common categorization relates to the number of users and tasks it can support at any time. List and briefly describe three types of categorization for Operating Systems?

*[1.5+2+2+4.5 marks]*

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**END OF QUESTION PAPER**



Use the following table to answer Multiple Choice questions

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