



STRATHMORE BUSINESS SCHOOL
BACHELOR OF FINANCIAL SERVICES
END OF SEMESTER EXAMINATION

BFS 1101: INFORMATION SYSTEMS FOR FINANCIAL SERVICES

DATE: Fri, 25th October 2024

TIME: 15:30 – 17:30

Instructions

1. This examination consists of FIVE questions.
2. Answer **Question ONE (COMPULSORY)** and any other **TWO** questions.

SECTION A

QUESTION ONE

(30 MARKS)

(a) **Multiple Choice Questions:** *Indicate the correct option (e.g., A/B/C/D/E) or the correct short statement [for (Vii, XV)] on the answer booklet.* **(24 marks)**

- | | |
|---|--|
| i) Processor speed is typically measured in _____
A. Megahertz (MHz) or gigahertz (GHz)
B. Gigabytes
C. Terabytes
D. Megabits | C. RAM
D. ROM |
| ii) Which of the following is an output device?
A. Barcode reader
B. Mouse
C. Keyboard
D. Touch Screen | iv) The internet is an example of a _____.
A. LAN
B. MAN
C. PAN
D. WAN |
| iii) Which of the following is safe to remove whilst a laptop is running?
A. External hard drive
B. NIC | v) A computer is running slowly, what could you do to make it faster?
A. Add extra RAM.
B. Clean the CD.
C. Plug in another monitor.
D. Upgrade the mouse. |
| | vi) What does the CPU plug into?
A. CD ROM drive
B. NIC
C. The motherboard |

- D. The printer
- vii) In computer storage a _____ consists of 8 adjacent binary digits (bits), each of which consists of a 0 or 1.
- viii) In order to play and hear sound on a computer, one needs _____
- A. A sound card and speakers
 B. A microphone
 C. All the 3 devices above are required.
 D. None of the devices above 3 are required.
- ix) Microsoft Defender antivirus is an example of _____
- A. Application software
 B. Firewall
 C. Operating system
 D. Utility software
- x) Which application software is best for calculations using formulas and functions?
- A. Graphics
 B. Spreadsheet
 C. Web authoring
 D. Web browser
- xi) Which one of these software utilities returns the computer to a previous state?
- A. Automatic updates
 B. Disk defragment
 C. Firewall
 D. System restore.
- xii) Tracy keeps getting notifications saying there might be a virus in some of her files, what does she need to do?
- A. Look through her files and delete some of them.
 B. Run a disk defragment.

- C. Turn computer off and on again.
 D. Run a virus scan.

- xiii) A software that can be freely accessed and modified is known as _____.

- A. Synchronous Software
 B. Package Software
 C. Open-source software
 D. Middleware

- xiv) Storm has noticed that someone keeps accessing his files over the Internet and he has not given them permission. What does he need to do to prevent this from happening again?

- A. Create a backup of his files.
 B. Do a system restore.
 C. Install a firewall and make sure it is configured properly.
 D. Run a virus scan.

- xv) Tracy is replacing RAM in a computer; the stages are shown below, but are in the wrong order.

- A. Put in the new RAM
 B. Take out the old RAM
 C. Take the computers side panel off
 D. Turn the power off

Fill in the boxes to show the correct order. One has been done for you.

D			
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- xvi) _____ is the general transformation cycle for information.
- A. Data to information to knowledge.
 B. Data to knowledge to information.
 C. Knowledge to data to information.
 D. Information to data to knowledge

- E. none of the above.
F. Both A & B.
- xvii) _____ is circuitry within a computer's processor that directs operations. It instructs the memory, logic unit, and both output and input devices of the computer on how to respond to the program's instructions.
- A. Arithmetic and logic unit
B. Motherboard
C. Control Unit
D. Memory
- xviii) Which of the following is non-volatile storage?
- A. Backup storage
B. Secondary storage
C. Primary storage
D. Cache storage
- xix) _____ is the process of verifying the identity of a user.
- A. Authentication
B. Identification
C. Validation
D. Verification
- xx) _____ can change the physical structure of the document.
- A. Font
B. Formatting
C. Approach
D. Debug
- xxi) In Excel, the cell that is in use is called _____.
- A. Highlighted cell
B. Main cell
C. Active cell
D. Formula cell
- xxii) In Excel a user can set conditions to display only specific data using the _____.
- A. Filter function
B. Array function
C. Lookup function
D. Operator function
- xxiii) The system unit of a personal computer typically contains all of the following except:
- A. Microprocessor
B. Disk controller
C. Serial interface
D. Modem
- xxiv) _____ of information means, only authorised users are capable of accessing the information.
- A. Confidentiality
B. Integrity
C. Non-repudiation
D. Availability

(b) Discuss any **three** functions of an operating system. **(6 marks)**

QUESTION TWO (20 MARKS)

- (a) Describe the following types of databases.
- i) Operational Databases **(2 marks)**
 - ii) Hypermedia Database **(2 marks)**
- (b) Whenever people are working with computers, they get exposed to various computer risks.
- i) In your own words, explain the meaning of the term: “computer risk”. **(1 mark)**
 - ii) For each of the computer risks listed below, explain **two** safeguards that could be employed to avert/prevent the risk.
 - Software piracy **(2 marks)**
 - System failure **(2 marks)**
 - Hardware theft **(2 marks)**
- (c) A computer’s motherboard is made up of various components. State the role of each of the components below:
- i) Random Access Memory (RAM) **(1 mark)**
 - ii) Expansion Slot **(1 mark)**
 - iii) Central Processing Unit **(1 mark)**
- (d) Explain **three** advantages that custom-made software has when compared to off-the- shelf software. **(3 marks)**
- (e) Using appropriate examples, differentiate between a Wide Area Network (WAN) and Local Area Network (LAN) **(3 marks)**

QUESTION THREE (20 MARKS)

- (a) Discuss **three** characteristics of high-quality information. **(3 marks)**
- (b) The memory of a computer system contains both RAM and ROM. State **three** differences between RAM and ROM in a typical computer system. **(3 marks)**
- (c) Discuss **four** provisions that can be made to cater for the needs of the physically challenged regarding their use of input and output devices. **(4 marks)**
- (d) State one difference and two similarities between the following storage media: magnetic tape and magnetic disks. **(3 marks)**
- (e) Discuss any **three** benefits that a liquid crystal display screen (LCD) has over a cathode ray tube (CRT) display screen. **(3 marks)**
- (f) Using appropriate examples, discuss **four** benefits that an organization would derive from having a computer network. **(4 marks)**

QUESTION FOUR**(20 MARKS)**

- (a) Differentiate between an intranet and an extranet. **(3 marks)**
- (b) Explain any **four** precautions that one should take when assembling or disassembling a personal computer. **(4 marks)**
- (c) The history of computers can be divided into generations, with each generation being defined by a technological breakthrough. Briefly describe the fourth generation of computers. **(4 marks)**
- (d) More and more companies today are moving away from traditional ways of data storage to cloud storage.
- i) Define cloud storage, and give **two** examples **(3 marks)**
 - ii) Explain **three** benefits of cloud storage. **(3 marks)**
 - iii) Explain **three** disadvantages of cloud storage. **(3 marks)**

QUESTION FIVE**(20 MARKS)**

- (a) You realize that someone has been accessing information on your computer through the computer network without your knowledge or permission. Explain **two** ways you would use to enhance the security of your computer/computer network in order to prevent this unauthorized computer access and use? **(4 marks)**
- (b) Using real-life examples, explain any **three** socio-political and ethical concerns that arise from networking (i.e., the use of computer networks) **(6 marks)**
- (c) The sales data below have been entered into an excel sheet. Use the information given to answer the questions that follow.

	A	B	C	D
1	Location	Coke	Lemonade	Total
2	Kenya	40,000	10,000	50,000
3	Uganda	30,000	40,000	
4	Tanzania	50,000	40,000	
5	Ethiopia	30,000	60,000	
6	Total			
7	Highest value			

- i). Write a formula and a function which if placed in B6 will show the total sales figure for the coke column. **(2 marks)**
 - ii). Write a formula which if placed in B7 will show the highest sales figure for the coke column **(1 mark)**
 - iii). If the formula placed in cell D2 is copied down the column to cell D5, what will be the formula in D5? **(1 mark)**
 - iv). What feature would be used to copy the formula in question (iii) above. **(1 mark)**
- (d) Computer ergonomics is of concern in today's digital age.
- i). Define the term: Computer ergonomics **(1 mark)**

- ii). Explain **four** ways in which ergonomics can be enhanced as people work around computers. **(4 marks)**