



UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA

FIRST SEMESTER EXAMINATIONS, NOV/DEC 2019

COURSE NO: MA/MN/MR/GL/EL/PE/MC/GM/ES/RN 159

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COURSE NAME: INTRODUCTION TO COMPUTING

CLASS: MA/MN/MR/GL/EL/PE/MC/GM/ES/RN I TIME: 2HRS

Name: _____ Index Number: _____

This examination is in THREE sections. Section A, B, and C. Section A consists of multiple choice questions, Sections B and C are essay type questions. Answer ALL QUESTIONS.

SECTION A (40 Marks)

1. Which of the following statement is true?
 - a. Minicomputers work faster than microcomputers
 - b. Microcomputers work faster than minicomputers
 - c. Speed of both computers are the same
 - d. The speed of these computers cannot be compared to that of advanced computers ✓
2. _____ is combination of hardware and software that facilitates the sharing of information between computing devices.
 - a. Topology
 - b. Network ✓
 - c. Peripheral
 - d. WLAN
3. _____ uniquely identifies a computer or device on a network
 - a. Hostname
 - b. IP Address ✓
 - c. Network Address
 - d. Computer Name
4. A device driver is:
 - a. The person who delivers hardware devices to a computer store
 - b. The connector that allows you to attach the device to a computer ✓
 - c. A computer program that allows the operating system to communicate with the device
 - d. The power supply for the device. ✗
5. A computer network must contain at least this number of computers.
 - a. Just a few
 - b. Two ✓
 - c. Twenty
 - d. Hundred
6. A typical example of simplex data transmission is
 - a. Television ✓
 - b. Walkie Talkie
 - c. Landline phone
 - d. Mobile Phone ✓
7. Multiprocessing is concurrent processing of several programs by a single CPU
 - a. True
 - b. False ✓
8. CAD stands for
 - a. Computer Application Design
 - b. Computer Aided Design ✓
 - c. Computer Analogue Design
 - d. Computer Application Dialogue
9. The following is an example of a computer peripheral
 - a. RAM
 - b. Keyboard ✓
 - c. ROM
 - d. The Motherboard
10. When a file is saved for the first time.
 - a. A copy is automatically printed

if (E2 < 500, "fail", pass)

- b. It must be given a name to identify it
 c. It does not need a name
 d. It only needs a name if it is not going to be printed
11. Office LANs which are scattered geographically on a large scale can be connected by the use of?
 a. Campus Area Network
 b. Metropolitan Area Network
 c. Wide Area Network
 d. Local Area Network
12. The shape or structure of a network is said to be a network?
 a. Architecture
 b. Framework
 c. Topology
 d. Star
13. In Microsoft Word, buttons cannot be added or removed from the quick access toolbar.
 a. True
 b. False
14. The intersection of a row and a column is known as
 a. Field
 b. Cell
 c. Margin
 d. A and B
15. What characteristic of read only memory (ROM) makes it very useful?
 a. ROM information can be easily updated
 b. Data on ROM is non-volatile, that is, it remains there even without electric power
 c. ROM provides very large amount of inexpensive data storage
 d. ROM chips are easily swapped between different brands of computers
16. The ROM is a typical example of a temporary storage.
 a. True
 b. False
17. In Microsoft Word, the following are all Standard Tabs except:
 a. File Tab
 b. Picture Tools Tab
 c. Mailings Tab
 d. Home Tab
18. The status bar in Microsoft Word displays information about the file and its content.
 a. True
 b. False
19. A fault in a computer program which prevents it from working properly is known as?
 a. Glitch
 b. Bug
 c. Virus
 d. Worm
20. Combining two or more table cells located in the same row or column into a single cell is known as?
 a. Fusing Cells
 b. Cell combination
 c. Splitting Cells
 d. Merging Cells
21. Which of the following are functions of the operating system?
 a. Allocates resources
 b. Monitors activities
 c. Manages disks and files
 d. All of the above
22. The command in Microsoft Word which allows you to create a large capital letter at the beginning of a paragraph is known as?
 a. Hyperlink
 b. Drop Cap
 c. WordArt
 d. Bookmark
23. What PowerPoint feature will you use to apply motion effects to different objects of a slide?
 a. Slide Transition
 b. Slide Design
 c. Animation
 d. Slide Insert

24. The primary function of the is to set up the hardware, load and start the Operating System?
- a. CMOS
 b. BIOS
 c. Programs
 d. Boot Options
25. Visual Display Unit is an example of?
- a. Input Device
 c. Output Device
 b. Input/Output Device
 d. All of the Above
26. Which of the following key combination is used to close a word document?
- a. Ctrl + S *Save*
 b. Ctrl + W
 c. Ctrl + C *Copy*
 d. Ctrl + U *Underline*
27. Which of the following is not a transmission medium?
- a. Infra-red
 b. Cables
 c. Satellite
 d. Mobile Phone
28. In computer networking, what are the three basic components needed to create a network?
- a. Hardware, Software, Users
 b. Hardware, Software, Cabling
 c. Cabling, Software, Users
 d. Hardware, Cabling, Users
29. The Ruler in Microsoft Word can be used to align text, figures and shapes.
- a. True
 b. False
30. The Recycle Bin is a temporary holding location for deleted files and folders.
31. Any URI consists of a protocol and a URL
- a. True
 b. False
32. The analytical computing engine was designed for general purpose computing.
- a. True
 b. False
33. The _____ tab in Microsoft Word allows you to create Table of Content.
- a. References
 c. Insert
 b. Review
 d. Design
34. The modem is an input and output device.
- a. True
 b. False
35. Which of the following ports is suitable for sending data over long distances:
- a) Parallel port
 c) Serial port
 b) USB port
 d) Electrical wire port
36. An icon is a pictorial representation set of programs in windows.
37. Low Earth Orbit Satellites are often located about 40, 000km above the equator and maintain a fixed position above the earth's surface
- a. True
 b. False
38. Junk email can also be known as Trash Mail
- a. True
 b. False
39. Monochrome monitors cannot display all colours of the rainbow.
- a. True
 b. False
40. The linking of computers and other communication devices to establish telecommunication system is known as?
- a. Assembling
 c. Networking
 b. Pairing
 d. Joining

Recycle Bin

7 4 8

(B2:B7)
Sum(E2:E7)

(E8/B8)

SECTION B (40 Marks)

1. Write down the full abbreviations of the following: (1 mark each)
- a. VGA
 - b. TCP
 - c. URI
 - d. CMOS *Transmission Control Protocol*
 - e. WLAN
 - f. MAC *Chip metal Oxide Semiconductor*
2. List all the components of a communication system? (2 marks)
3. Define the following and give two examples each: (1.5 marks each)
- a. An operating system
 - b. An application software *Wide Local area network*
4. Explain the functions of the following in layers in the Open System Interconnection model (2 marks each)
- a. Physical layer
 - b. Transport layer *4 marks*
5. Explain how data is transmitted in the following media: (1 mark each)
- a. Half-duplex
 - b. Full duplex
6. State an advantage and a disadvantage each of the following:
- a. Twisted pair cable *simultaneous* (2 marks)
 - b. Fiber-optic cable (2 marks)
 - c. Coaxial cable (2 marks)
7. List one advantage and a disadvantage each of the following for data transmission
- a. Radio wave (2 marks)
 - b. Microwave (2 marks)
8. List the three types of information that the primary memory stores. (3 marks)
9. List four primary reasons for networking. (4 marks)
10. Briefly describe how devices are connected in the following network topologies: (6 marks)
- a. Bus
 - b. Star
 - c. Ring

5 + 4 + 1 + 1 + 5 + 4 + 6
37 *63*
90
20

- To share information
- To make research
- To establish telecommunication system
- To share technology resources

SECTION C (20 Marks)

The picture below shows an Excel snapshot of a first student's marks at John's University for the first semester. Given this picture and the below relevant information, answer Questions (i.) to (vii.)

figures letters

	A	B	C	D	E	F	G	H
1	Course Code	Credit Hours	Continuous Assessment (40%)	End of Sem Score (60%)	Weighted Score (100%)	Grade		
2	CE 150	3	25	40				
3	CE157	2	30	50				
4	CE 163	1	19	35				
5	CE 175	3	23	29				
6	CE 181	3	35	45				
7	CE 185	2	28	37				
8	Total Credit Hours	-	= AVERAGE (C2 : C7)	Total Weighted Score	E8			
9				CWA				
10								
11								

Relevant Information:

- Weighted Score is sum of Continuous Assessment and End of Sem Score $W = \text{sum of Continuous ass} + \text{End of Sem}$
- Total Credit Hours is the sum of all Credit hours
- Total Weighted Score is the sum of all Weighted Scores $W = \text{sum of all weighted scores}$
- CWA is the division of Total Weighted Score by Total Credit Hours
- Grade is Fail if Weighted Score is less than 50.00.
- Grade is Pass if the Weighted Score is greater than or equal to 50.00 but less than 80.00
- Grade is Distinction if Weighted Score is greater than or equal to 80.00, and less than or equal to 100.00

$= \text{sum}(C2, D2)$

Questions:

- i. Write down the formula for cell E2 that will compute the Weighted Score. (2 marks) $= \text{sum}(C2, D2)$
- ii. Write down the formula in cell C8 that will compute the Average Continuous Assessment. (2 marks) $= \text{AVERAGE}(C2 : C7)$
- iii. Write down the formula in cell B8 that will compute the Total Credit Hours. (2 marks) $= \text{sum}(B2 : B7)$
- iv. Write down the formula in cell E8 that will compute the Total Weighted Score. (2 marks) $= \text{sum}(E2 : E7)$
- v. Write down the formula in cell E9 that will compute the CWA. (3 marks)

$$\text{CWA} = \frac{\text{Total weighted score}}{\text{Total Credit Hours}} = (E8 / B8)$$

- vi. Write down the formula in cell F2 that will indicate the grade of the student based on the relevant information provided for grading. (5 marks)
- vii. Assuming the Weighted Scores for all courses are to be modelled by adding 15% of Continuous Assessment to the sum of Continuous Assessment and End of Sem Score, write the formula for cell E2 that will compute the modelled Weighted Scores. (4 marks)

A. Fatao/ V. Nufong/ S. Akpa

$$\text{weighted scores} = 15\% * \text{Continuous Assessment} + \text{End of Sem Score}$$

for cell E2

$$= 15\% * E2 + D2$$

$$= \text{sum}(C2, D2) * 15\%$$

$$\frac{15}{100}$$