



UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA
FIRST SEMESTER EXAMINATIONS, NOV/DEC 2017

COURSE NO: CE 171
COURSE NAME: INTRODUCTION TO COMPUTER
SCIENCE AND ENGINEERING
CLASS: CE I **TIME:** 3 HOURS

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Name: _____ Index Number: _____

INSTRUCTIONS: This examination is in two PARTs: Part I and Part II. Part I consists of multiple choice, fill-ins and TRUE/FALSE type of questions. Part II consists of essay type of questions. Please answer Part I on the question paper and Part II in the answer booklet.

PART I

1. And Internet service that allows computer users to remotely store data, instructions and information is known as
 - a. Solid State Drive
 - b. Microwave
 - c. Cloud storage
 - d. Bluetooth
2. The component of the computer that stores instructions waiting to be executed and data needed by the instructions is called
 - a. Cloud storage
 - b. Memory
 - c. Hard drive
 - d. Storage
3. Which of the following uses short range radio signals to enable computers and mobile devices communicate with each other?
 - a. Hot spot
 - b. Bluetooth
 - c. Wi-fi
 - d. Cellular radio
4. All the following programs protect computers from viruses and malwares except
 - a. Rootkit
 - b. Windows defender
 - c. Antivirus
 - d. Anti-malware
5. In addition to providing information about date and time, wearable devices can be used for all but one of the following
 - a. Acquiring GPS information
 - b. E-mail communication
 - c. Fitness tracking
 - d. Web development
6. A synonym for the web address is
 - a. URL
 - b. HTTPS

- c. FTP
- d. Protocol
7. Top-Level-Domain are globally sold, registered and managed by which of the following organizations
- a. ISP
- b. ICANN
- c. NCA
- d. Internet administrator
8. Which of the following is considered to be a safe web browsing habit.
- a. Use a proxy server
- b. Turn of location sharing feature in web browsers
- c. Ensuring HTTPS prefixes URLs instead of HTTP
- d. Avoid the use private browsing
9. A sequence of numbers that uniquely identifies the location of each computer or device connected to the Internet is called
- a. IP address
- b. URL address
- c. Location address
- d. GPS address
10. A computer that delivers requested webpages to a user's computer or mobile device is known as
- a. Cloud storage
- b. Web server
- c. RAID
- d. UNIX
11. The use of computers to simulate real life or imagined environment that appears in a three dimensional space is referred to as
- a. Computer vision
- b. Computer graphics
- c. Smart technology
- d. Virtual reality
12. A high-end desktop computer typically employed to power users to handle intense calculations and powerful graphics is referred as
- a. Workstation
- b. NAS
- c. Gaming computer
- d. Laptop
13. Personal data such as user name, preferences, shopping cart information are stored by web store server as small text files in the form of
- a. Spyware
- b. Adware
- c. Cookies
- d. Cache
14. A personal information manager (PIM) is application software that includes but one of the following
- a. Appointment calendar
- b. E-mail client
- c. Notepad
- d. Address book
15. Which of the following application softwares allow users to organize data into rows and columns for performing calculations and graphical analysis
- a. Database
- b. Document management
- c. Power point
- d. Spreadsheet
16. Mobile phones equipped with one of the following can be used for mobile payments applications in which stored data is transmitted to a contactless terminal and verified as legitimate sale.

- a. NFC chip
 - b. RF chip
 - c. QR chip
 - d. Bluetooth chip
17. Which of the following applications assist professionals and designers in creating engineering, architectural, and scientific designs and models.
- a. Enterprise software
 - b. A software suite
 - c. CAD software
 - d. Public-domain software
18. With respect malwares, quarantine refers to one of the following.
- a. An area on the hard drive that holds the infected file
 - b. Malware remover
 - c. An infected application
 - d. An area where legitimate applications are held.
19. The main circuitry of the computer is assembled on one of the following components of the computer
- a. ALU
 - b. CPU
 - c. Motherboard
 - d. System chassis
20. The heat sink of the computer is a small ceramic or metal component with fins that performs one of the following functions.
- a. Circulates air over the monitor
 - b. Absorbs, disperses heat produced by electrical components
 - c. Generate heat to energize the components of the motherboard.
 - d. All the above
21. Which of the following is/are part of the four basic operations repeated by the processor of the computer for every instruction?
- a. Execute
 - b. Decode
 - c. Store
 - d. All the above
22. Which of the following is not an example of a pointing device?
- a. Touchpad
 - b. Trackball
 - c. Touch screen
 - d. Pointing stick
23. Another name for the symbol on the screen popularly known as the cursor which indicates where the next character that is typed on the keyboard will appear is
- a. Character point
 - b. Text indicator
 - c. Command prompt
 - d. Insertion point
24. Two factors that affect the quality of digital camera photos include camera resolution and
- a. Number of bits per pixel
 - b. Memory size
 - c. Capacity of the storage medium
 - d. Device manufacturer
25. Which of the following is not a biometric recognition system?
- a. DNA sequencing
 - b. Iris recognition system

- c. Fingerprint reader
- d. Retinal scanner
26. Which of the following is an input device that contains buttons and/or wheels you operate with a thumb or finger?
- a. Digitizer
- b. Interactive whiteboard
- c. Touch-sensitive pad
- d. OCR device
27. Which of the following is not an advantage of SSDs over hard disks?
- a. Faster transfer time
- b. More durable
- c. Light weight
- d. Higher storage capacity
28. An optical disc that can be read from but not written on or erased is a
- a. CMOS
- b. DRAM
- c. CD-ROM
- d. Multisession disc
29. A measure of the amount of time it takes a storage device to locate an item on a storage medium and/or the time required to deliver an item from memory to the processor is called
- a. Transfer time
- b. Access time
- c. Transfer rate
- d. Rpm
30. One of the following storage devices contains one or more inflexible, circular platters that use magnetic particles to store data, instructions, and information.
- a. Hard disk
- b. Optical disc
- c. SSD
- d. USB flash drive
31. Which of the following is not a server operating system?
- a. UNIX
- b. Microsoft OS
- c. Linux
- d. Chrome OS
32. The technique of swapping items between memory and storage is called
- a. Buffering
- b. Spooling
- c. Thrashing
- d. Paging
33. Question
- a. NFC
- b. ISDN
- c. FTTP
- d. T-carrier lines
34. Which of the following is *not* a digital dedicated line?
- a. Answer
- b. Answer
- c. Answer
- d. Answer
35. In an expert system, one of the following is the combined subject knowledge and experiences of the human experts
- a. Inference rules
- b. Artificial intelligence

- c. Decision support system
 - d. Knowledge base
36. One of the following allow users interact with the software through ordinary, intuitive behavior.
- a. Command-line interface
 - c. Answer
 - b. Proprietary software
 - d. Graphical user interface
37. A special series of bits that functions like a ticket is called?
- a. Token
 - c. Bluebug
 - b. Packet
 - d. Host
38. Information is arranged to suit the needs of the decision maker is said to be
- a. Verifiable
 - c. Cost effective
 - b. Organized
 - d. Timely
39. Which of the following is not an advantage of the database approach?
- a. Data integrity
 - d. Requires less memory, storage, and processing power than file processing systems
 - b. Reduced data redundancy
 - c. Shared data
40. Which of the following allows the storage and management of a company's documents?
- a. CMS
 - c. MRP II
 - b. DMS
 - d. ERP

Complete the following with the appropriate answers.

41. The process of dividing the hard disk space into sectors and tracks so as enable easy access or storage of data is referred to as _____.
42. _____ occurs when the read/write head makes contact with the _____ of hard disk resulting in damage.
43. The read/write head either write data _____ or _____ to the platter.
44. The integration of an array of hard drives especially in an enterprise storage is called _____.
45. An application designed to run on multiple operating systems is referred to as a _____.
46. When the capacity of the main memory of the computer is exceeded, the portion of the storage medium that is invoked by the computer is known as _____.
47. A third-party business that provides networking services, such as EDI services, secure data and information transfer, storage, or email is called _____.

PART II

Attempt all question in this part.

1. a) i) What is head crush?
 - ii) State two reasons why you will choose the hard disk drive over SSD.
 - iii) Distinguish between the CD-ROM, CD-R and CD-RW.
 - b) i) Define the term , Operating System with respect to computer
 - ii) List the five steps distinct steps involved in the booting of a computer.
 - iii) Distinguish between proprietary OS and open source OS giving an example each.
 - c) i) State the differences between LANs, WLANs, MANs, WANs, and PANs.
 - ii) Identify one advantage and disadvantage of fiber-optic cables.
 - iii) Define the term Bluebugging
 - d) i) Distinguish between the file processing and database approach to storing data.
 - ii) Name and briefly explain the each of the five phases of System Development Life Cycle.
 - iii) Briefly explain the relationship between a programming language and a syntax with respect to computer applications.
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- 2 a) i) With respect to computer storage, what is meant by reading and writing
 - ii) Define the following acronyms: EIDE, SCSI, SAS, SATA.
 - iii) Why is it important to defragment a hard disk?
 - b) i) Distinguish between phishing attacks and spamming with respect to computer security.
 - ii) Differentiate among the features of the Android, iOS, and Windows Phone mobile Operating systems.
 - iii) Briefly explain the role of device driver. Mention the two main methods by which drivers can be obtained.
 - c) i) Mention any four issues surrounding the use of BANs.
 - ii) Explain the function of a network card in computers.
 - iii) Explain how P2P networks function, and describe the uses of P2P file sharing.
 - d) i) Explain the uses of and relationship between a document management system (DMS) and a content management system (CMS).
 - ii) Mention and explain any five criteria that make information valuable.
 - iii) What is the role of the IT consultant to an enterprise establishment?

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