Started on	Sunday, 28 July 2024, 7:15 PM
State	Finished
Completed on	Sunday, 28 July 2024, 7:21 PM
Time taken	5 mins 2 secs
Marks	13.00/15.00
Grade	**86.67** out of 100.00

Question **1**

Correct

Mark 1.00 out of 1.00

Which topology is a combination of two or more topologies?

- ○ a. Bus
- ○ b. Star
- ◉ c. Hybrid ✔
- ○ d. Ring

The correct answer is: Hybrid

Question **2**

Incorrect

Mark 0.00 out of 1.00

_____ prevents creating multiple copies in the database.

- ○ a. Data redundancy
- ○ b. Data independence
- ○ c. Data consistency
- ◉ d. Data integrity ✖

The correct answer is: Data redundancy

Question 3

Incorrect

Mark 0.00 out of 1.00

Jobs that perform comparable functions are grouped together in the multi-tasking operating system.

- ○ a. TRUE ✖
- ○ b. FALSE

The correct answer is: FALSE

Question 4

Correct

Mark 1.00 out of 1.00

Attacks against _____ are alteration attacks.

- ○ a. availability
- ○ b. confidentiality
- ○ c. integrity ✔
- ○ d. reliability

The correct answer is: integrity

Question 5

Correct

Mark 1.00 out of 1.00

What does "data redundancy" mean in a database?

- ○ a. Storing multiple copies of the same data ✔
- ○ b. Ensuring data consistency
- ○ c. Deleting unnecessary data
- ○ d. Encrypting data for security

The correct answer is: Storing multiple copies of the same data

Question 6

Correct

Mark 1.00 out of 1.00

What is an example of a confidentiality attack?

- ⦿ a. Reading messages (communication) without authorization ✔
- ○ b. DDoS
- ○ c. Modification
- ○ d. Inaccessibility of data

The correct answer is: Reading messages (communication) without authorization

Question 7

Correct

Mark 1.00 out of 1.00

Which OS does the client-server model fit?

- ○ a. Real time OS
- ⦿ b. Distributed OS ✔
- ○ c. Multi-tasking OS
- ○ d. Multi-Processing OS

The correct answer is: Distributed OS

Question 8

Correct

Mark 1.00 out of 1.00

Which of the following is an example of Mobile OS?

- ○ a. Windows
- ○ b. DOS
- ⦿ c. Android ✔
- ○ d. Linux

The correct answer is: Android

Question 9

Correct

Mark 1.00 out of 1.00

Data items grouped together for storage purposes are called a list.
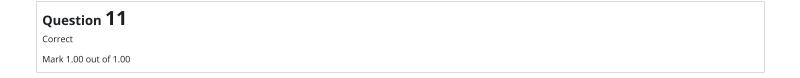
- ○ a. TRUE
- ◉ b. FALSE ✔

The correct answer is: FALSE

Question 10

Correct

Mark 1.00 out of 1.00

Database Management System enables users to define, create, maintain, and control access to the database.

- ◉ a. TRUE ✔
- ○ b. FALSE

The correct answer is: TRUE

Question 11

Correct

Mark 1.00 out of 1.00

Data communication system within a building or campus is called _____.

- ◉ a. LAN ✔
- ○ b. WAN
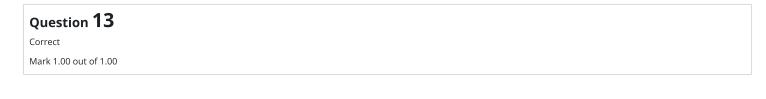- ○ c. MAN
- ○ d. CAN

The correct answer is: LAN

Question 12

Correct

Mark 1.00 out of 1.00

The full duplex communication mode supports data in both directions at the same time.

- a. TRUE ✔
- b. FALSE

The correct answer is: TRUE

Question 13

Correct

Mark 1.00 out of 1.00

What is a potential drawback of a hierarchical database management system?

- a. Efficient data retrieval
- b. Limited flexibility in data representation ✔
- c. Minimal data redundancy
- d. Easy data scalability

The correct answer is: Limited flexibility in data representation

Question 14

Correct

Mark 1.00 out of 1.00

Which of the following is NOT an operating system?

- a. Windows
- b. Linux
- c. Oracle ✔
- d. DOS

The correct answer is: Oracle

Question 15

Correct

Mark 1.00 out of 1.00

Physical arrangement of the network is called _____.

- a. topology ✔
- b. routing
- c. networking
- d. transmission mode

The correct answer is: topology

Started on	Sunday, 7 July 2024, 7:18 PM
State	Finished
Completed on	Sunday, 7 July 2024, 7:25 PM
Time taken	6 mins 54 secs
Marks	14.00/15.00
Grade	**93.33** out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

Convert the binary number (1110100101) to decimal number.

- a. 423
- b. 845
- ◉ c. 933 ✔
- d. 205

The correct answer is: 933

Question 2

Correct

Mark 1.00 out of 1.00

How is a number typically converted from decimal to binary?

- ◉ a. Division by 2 ✔
- b. Division by 4
- c. Division by 8
- d. Division by 16

The correct answer is: Division by 2

Question 3

Correct

Mark 1.00 out of 1.00

What is the decimal equivalent of the base-6 number 1125?

- ○ a. 175
- ○ b. 244
- ◉ c. 269 ✔
- ○ d. 312

The correct answer is: 269

Question 4

Correct

Mark 1.00 out of 1.00

Which software classification do operating systems and device drivers belong?

- ◉ a. System software ✔
- ○ b. Application software
- ○ c. Embedded software
- ○ d. Productivity software

The correct answer is: System software

Question 5

Incorrect

Mark 0.00 out of 1.00

Write the boolean expression for the situation: A bulb, controlled by two switches A and B, only glows when both switches A and B are ON.

- ○ a. AB
- ○ b. A+B(AB)'
- ◉ c. (AB)' ✖
- ○ d. (A+B)'

The correct answer is: AB

Question 6

Correct

Mark 1.00 out of 1.00

An example of application software designed for word processing is_____.

- ○ a. Microsoft Windows
- ○ b. Adobe Photoshop
- ⦿ c. Microsoft Word ✔
- ○ d. Linux

The correct answer is: Microsoft Word

Question 7

Correct

Mark 1.00 out of 1.00

The firmware of a smartphone is responsible for _____.

- ○ a. providing internet access
- ⦿ b. managing hardware components ✔
- ○ c. installing applications
- ○ d. creating documents

The correct answer is: managing hardware components

Question 8

Correct

Mark 1.00 out of 1.00

Which of the following is a secondary storage device?

- ○ a. CPU
- ⦿ b. Hard disk drive (HDD) ✔
- ○ c. Monitor
- ○ d. Keyboard

The correct answer is: Hard disk drive (HDD)

Question 9

Correct

Mark 1.00 out of 1.00

How many bits per character does an ASCII code use?

○ a. 6

○ b. 7

◉ c. 8 ✔

○ d. 9

The correct answer is: 8

Question 10

Correct

Mark 1.00 out of 1.00

How many bits does the Unicode standard use for character representation by default?

○ a. 8

◉ b. 16 ✔

○ c. 32

○ d. 64

The correct answer is: 16

Question 11

Correct

Mark 1.00 out of 1.00

The stored-program concept allows computers to store and execute instructions from memory.

◉ a. TRUE ✔

○ b. FALSE

The correct answer is: TRUE

Question 12

Correct

Mark 1.00 out of 1.00

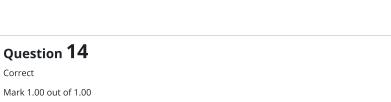What is the decimal equivalent of the hexadecimal number C8?

- ○ a. 200 ✔
- ○ b. 192
- ○ c. 184
- ○ d. 176

The correct answer is: 200

Question 13

Correct

Mark 1.00 out of 1.00

An example of system software is _____.

- ○ a. Microsoft Word
- ○ b. Photoshop
- ○ c. Windows operating system ✔
- ○ d. Adobe Acrobat Reader

The correct answer is: Windows operating system

Question 14

Correct

Mark 1.00 out of 1.00

Which category does laptops and desktops belong to?

- ○ a. Minicomputers
- ○ b. Microcomputers ✔
- ○ c. Supercomputers
- ○ d. Mainframes

The correct answer is: Microcomputers

Question **15**

Correct

Mark 1.00 out of 1.00

Convert decimal number 876.242 to binary number.

- ○ a. 1101101100.00111101 ✔
- ○ b. 011011110.00111101
- ○ c. 1101101100.0111111
- ○ d. 1000010001.1000100

The correct answer is: 1101101100.00111101

Started on	Tuesday, 30 July 2024, 5:27 PM
State	Finished
Completed on	Tuesday, 30 July 2024, 5:41 PM
Time taken	13 mins 36 secs
Marks	14.00/15.00
Grade	**93.33** out of 100.00

Question **1**

Correct

Mark 1.00 out of 1.00

What is a potential drawback of a hierarchical database management system?

- ○ a.   Efficient data retrieval
- ◉ b.   Limited flexibility in data representation ✔
- ○ c.   Minimal data redundancy
- ○ d.   Easy data scalability

The correct answer is: Limited flexibility in data representation

Question **2**

Correct

Mark 1.00 out of 1.00

What is the purpose of the external schema in a three-level architecture of a database system?

- ○ a.   To define the physical storage details
- ◉ b.   To hide the complexity from end-users ✔
- ○ c.   To store metadata about the database
- ○ d.   To manage database security

The correct answer is: To hide the complexity from end-users

Question 3

Correct

Mark 1.00 out of 1.00

What is the disadvantage of a Centralized Database Management System?

- ○ a. Improved data consistency
- ● b. Single point of failure ✔
- ○ c. Enhanced data security
- ○ d. Reduced data redundancy

The correct answer is: Single point of failure

Question 4

Incorrect

Mark 0.00 out of 1.00

_____ is vital to achieve a degree of multiprogramming.

- ○ a. Network management
- ○ b. File management
- ● c. Resource management ✘
- ○ d. Memory management

The correct answer is: Memory management

Question 5

Correct

Mark 1.00 out of 1.00

What is an example of a confidentiality attack?

- ● a. Reading messages (communication) without authorization ✔
- ○ b. DDoS
- ○ c. Modification
- ○ d. Inaccessibility of data

The correct answer is: Reading messages (communication) without authorization

Question 6
Correct

Mark 1.00 out of 1.00

An operating system is a collection of _____.

- ⦿ a. software routines ✔
- ○ b. input-output devices
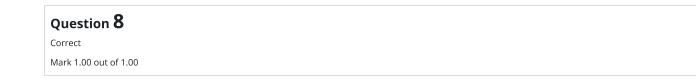- ○ c. hardware components
- ○ d. system calls

The correct answer is: software routines

Question 7
Correct

Mark 1.00 out of 1.00

A person who manages the database is called _____.

- ⦿ a. DBA ✔
- ○ b. DB
- ○ c. administrator
- ○ d. owner

The correct answer is: DBA

Question 8
Correct

Mark 1.00 out of 1.00

A top-bottom relationship among the items in the database is established by _____.

- ⦿ a. hierarchical schema ✔
- ○ b. network schema
- ○ c. relational schema
- ○ d. centralized schema

The correct answer is: hierarchical schema

Question 9

Correct

Mark 1.00 out of 1.00

What type of operating system is commonly found in robotics?

- ○ a.   Real-time OS ✔
- ○ b.   Distributed OS
- ○ c.   Batch OS
- ○ d.   Multi-processing OS

The correct answer is: Real-time OS

Question 10

Correct

Mark 1.00 out of 1.00

Database Management System enables users to define, create, maintain, and control access to the database.

- ○ a.   TRUE ✔
- ○ b.   FALSE

The correct answer is: TRUE

Question 11

Correct

Mark 1.00 out of 1.00

Why is firewall important in a computer network?

- ○ a.   It helps to enhance internet speed.
- ○ b.   It helps to prevent unauthorized access and control data traffic. ✔
- ○ c.   It helps to increase storage capacity.
- ○ d.   It helps to improve hardware performance.

The correct answer is: It helps to prevent unauthorized access and control data traffic.

Question 12

Correct

Mark 1.00 out of 1.00

The process of loading an operating system is called _____.

- ○ a.   initialization
- ◉ b.   bootstrapping ✔
- ○ c.   execution
- ○ d.   loading

The correct answer is: bootstrapping

Question 13

Correct

Mark 1.00 out of 1.00

The full duplex communication mode supports data in both directions at the same time.

- ◉ a.   TRUE ✔
- ○ b.   FALSE

The correct answer is: TRUE

Question 14

Correct

Mark 1.00 out of 1.00

_____ enables a user to execute multiple computer tasks at the same time.

- ◉ a.   Multitasking ✔
- ○ b.   Multiprocessing
- ○ c.   Multiprogramming
- ○ d.   Grouping

The correct answer is: Multitasking

Question **15**

Which one of the following services is NOT offered by an operating system?

- ○ a. Protection
- ○ b. Program execution
- ○ c. I/O operations
- ⦿ d. Compilation ✔

The correct answer is: Compilation

Started on	Friday, 5 July 2024, 6:49 PM
State	Finished
Completed on	Friday, 5 July 2024, 6:56 PM
Time taken	7 mins 11 secs
Marks	13.00/15.00
Grade	**86.67** out of 100.00

Question **1**

Correct

Mark 1.00 out of 1.00

The "+" in Boolean is known as the AND operator.

○ a.   TRUE

◉ b.   FALSE ✔

The correct answer is: FALSE

Question **2**

Correct

Mark 1.00 out of 1.00

Which of the following is a secondary storage device?

○ a.   CPU

◉ b.   Hard disk drive (HDD) ✔

○ c.   Monitor

○ d.   Keyboard

The correct answer is: Hard disk drive (HDD)

Question **3**

Correct

Mark 1.00 out of 1.00

Which software classification do operating systems and device drivers belong?

- ○ a. System software ✔
- ○ b. Application software

c. Embedded software

d. Productivity software

The correct answer is: System software

Question 4

Correct

Mark 1.00 out of 1.00

Which of the following is often used for scientific simulations, and weather forcasting due to its exceptional processing power?

a. Mainframe

b. Personal computer

c. Supercomputer ✔

d. Server

The correct answer is: Supercomputer

Question 5

Incorrect

Mark 0.00 out of 1.00

Which of the following Boolean expressions is NOT TRUE?

a. A + 1 = A

b. A + A' =1

c. A.A = A ✘

d. A.A' = 0

The correct answer is: A + 1 = A

Question **6**

Correct

Mark 1.00 out of 1.00

What does data persistence refer to in the context of secondary storage devices?

- ○ a. The ability to write in multiple languages
- ○ b. The capacity to store large amounts of data
- ● c. The ability to retain data over time ✔
- ○ d. The speed of data access

The correct answer is: The ability to retain data over time

Question **7**

Correct

Mark 1.00 out of 1.00

The stored-program concept allows computers to store and execute instructions from memory.

- ● a. TRUE ✔
- ○ b. FALSE

The correct answer is: TRUE

Question **8**

Correct

Mark 1.00 out of 1.00

How does Gray code differ from other coding representations?

- ○ a. It is not binary-based.
- ○ b. It is not used in computers.
- ● c. It minimizes errors during transitions. ✔
- ○ d. It has a larger character set.

The correct answer is: It minimizes errors during transitions.

Question 9

Incorrect

Mark 0.00 out of 1.00

Solve using identities of boolean aldebra: ABC + AB'C + ABC' + AB'C'.

- ○ a. B+AC'
- ◉ b. C' ✖
- ○ c. A+ B(A+C)
- ○ d. A

The correct answer is: A

Question 10

Correct

Mark 1.00 out of 1.00

Which method is commonly used to simplify complex Boolean expressions and determine their equivalence?

- ○ a. AND law
- ○ b. Inversion law
- ◉ c. Simplifying expressions ✔
- ○ d. OR law

The correct answer is: Simplifying expressions

Question 11

Correct

Mark 1.00 out of 1.00

Convert the binary number (1110100101) to decimal number.

- ○ a. 423
- ○ b. 845
- ◉ c. 933 ✔
- ○ d. 205

The correct answer is: 933

Question 12

Correct

Mark 1.00 out of 1.00

NAND is a complement of _____.

- a. AND ✔
- b. OR
- c. NOT
- d. XOR

The correct answer is: AND

Question 13

Correct

Mark 1.00 out of 1.00

In the Von Neumann architecture, what is the role of the Arithmetic Logic Unit (ALU)?

- a. Execute instructions
- b. Store data
- c. Manage I/O operations
- d. Perform arithmetic and logic operations ✔

The correct answer is: Perform arithmetic and logic operations

Question 14

Correct

Mark 1.00 out of 1.00

Which of the following gate is used to reverse the output?

- a. NOR
- b. NAND
- c. EXOR
- d. NOT ✔

The correct answer is: NOT

Question 15

Correct

Mark 1.00 out of 1.00

Which method is used to convert binary numbers to octal numbers?

○ a.   Division by 2 method

○ b.   Division by 8 method

◉ c.   Grouping by 3 method ✔

○ d.   Grouping by 4 method

The correct answer is: Grouping by 3 method