Started on	Wednesday, 12 July 2023, 1:30 PM
State	Finished
Completed on	Wednesday, 12 July 2023, 2:15 PM
Time taken	44 mins 51 secs
Marks	34.00/50.00
Grade	**6.80** out of 10.00 (**68**%)

Question 1

Complete

Mark 0.00 out of 1.00

What is the size of the given ternary tree?

Select one:

○ a. 4

○ b. 2

◉ c. 3

○ d. 6

The correct answer is: 6

Question 2

Complete

Mark 1.00 out of 1.00

What is the result of the following operation?

Top (Push (S, X))

Select one:

◉ a. X

○ b. X+S

○ c. S

○ d. XS

The correct answer is: X

Question 3

Complete

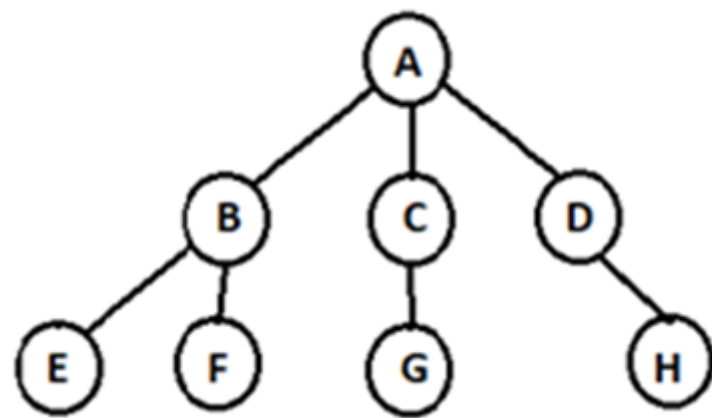Mark 1.00 out of 1.00

A queue follows _____

Select one:

○ a. LIFO (Last In First Out) principle

○ b. Linear tree

◉ c. FIFO (First In First Out) principle

○ d. Ordered array

The correct answer is: FIFO (First In First Out) principle

Question 4

Complete

Mark 1.00 out of 1.00

Which node is the Leaf node in the following ternary tree?

Select one:

○ a. D

○ b. A

◉ c. G

○ d. B

The correct answer is: G

Question 5

Complete

Mark 1.00 out of 1.00

Which of the following is not the application of stack?

Select one:

○ a. Tracking of local variables at run time

○ b. Compiler Syntax Analyzer

○ c. A parentheses balancing program

◉ d. Data Transfer between two asynchronous process

The correct answer is: Data Transfer between two asynchronous process

Question 6

Complete

Mark 1.00 out of 1.00

Which of the following is the name of the node having child nodes?

Select one:

- ○ a. Mother
- ○ b. Brother
- ○ c. Sister
- ● d. Father

The correct answer is: Father

Question 7

Complete

Mark 0.00 out of 1.00

What is the Height of the root node of ternary tree?

Select one:

- ○ a. 3
- ○ b. 1
- ○ c. 0
- ● d. 2

The correct answer is: 0

Question 8

Complete

Mark 1.00 out of 1.00

(Singleton) what is Lazyinitialization?

Select one:

- ○ a. In this method, class is initialized whether it is to be used or not. The main advantage of this method is its simplicity. You initiate the class at the time of class loading. Its drawback is that class is always initialized whether it is being used or not.

- ● b. In this method, class in initialized only when it is required. It can save you from instantiating the class when you don't need it. Generally, lazy initialization is used when we create a singleton class.

The correct answer is: In this method, class in initialized only when it is required. It can save you from instantiating the class when you don't need it. Generally, lazy initialization is used when we create a singleton class.

Question 9

Complete

Mark 0.00 out of 1.00

(Singleton) what is Early initialization?

Select one:

- ○ a. In this method, class is initialized whether it is to be used or not. The main advantage of this method is its simplicity. You initiate the class at the time of class loading. Its drawback is that class is always initialized whether it is being used or not.

- ● b. In this method, class in initialized only when it is required. It can save you from instantiating the class when you don't need it. Generally, lazy initialization is used when we create a singleton class.

The correct answer is: In this method, class is initialized whether it is to be used or not. The main advantage of this method is its simplicity. You initiate the class at the time of class loading. Its drawback is that class is always initialized whether it is being used or not.

Question 10

Complete

Mark 1.00 out of 1.00

Check if any of the Rigidbody2D colliders overlap a point in space.

Select one:

- ○ a. OverlapPoint property
- ○ b. OverlapPointCollider method
- ○ c. OverlapPointCollider property
- ● d. OverlapPoint method

The correct answer is: OverlapPoint method

Question 11

Complete

Mark 1.00 out of 1.00

Prototype Pattern is

Select one:

- ○ a. None of the above
- ○ b. Structural Design Pattern
- ● c. Creational Design Pattern
- ○ d. Behavioral Design Pattern

The correct answer is: Creational Design Pattern

Question 12

Complete

Mark 1.00 out of 1.00

.... removes the first occurrence of a particular value from the list

Select one:

- ○ a. Clear method
- ○ b. Clear property
- ○ c. Remove property
- ● d. Remove method

The correct answer is: Remove method

Question 13

Complete

Mark 0.00 out of 1.00

SYNTAX: While Loop

Select one:

○ a. while (Boolean expression) {
loop body
}

○ b. do {
loop body
} while (Boolean expression)

○ c. None of above

◉ d. All of above

The correct answer is: while (Boolean expression) {
loop body
}

Question 14

Complete

Mark 0.00 out of 1.00

What is the space complexity of a linear queue having n elements?

Select one:

○ a. O👎

◉ b. O(1)

○ c. O(nlogn)

○ d. O(logn)

The correct answer is: O👎

Question 15

Complete

Mark 1.00 out of 1.00

What is true about Prototype Pattern?

Select one:

○ a. Prototype allows us to hide the complexity of making new instances from the client.

○ b. The concept is to copy an existing object rather than creating a new instance from scratch, something that may include costly operations.

◉ c. All of the others

○ d. This approach saves costly resources and time, especially when object creation is a heavy process

○ e. The existing object acts as a prototype and contains the state of the object. The newly copied object may change same properties only if required

The correct answer is: All of the others

Question 16

Complete

Mark 1.00 out of 1.00

SYNTAX: Creating an Array Variable is

Select one:

○ a. elementType[] variableName = { value0, value1, ... };

○ b. variableName[index] = value;

○ c. None of the above

◉ d. elementType[] variableName = new elementType[arraySize];

The correct answer is: elementType[] variableName = new elementType[arraySize];

Question 17

Complete

Mark 1.00 out of 1.00

The postfix form of the expression (A+ B)*(C*D- E)*F / G is?

Select one:

◉ a. AB + CD* E – *F *G /

○ b. AB + CD* E – F **G /

○ c. AB + CDE * – * F *G /

○ d. AB+ CD*E – FG /**

The correct answer is: AB + CD* E – *F *G /

Question 18

Complete

Mark 0.00 out of 1.00

A new Sprite can be created using:

Select one:

○ a. Sprite s=Sprite.Create(textureRef,new Rect(0,0,1,1),new Vector2(0,0));

○ b. Sprite s=new Sprite(textureRef,new Rect(0,0,1,1),new Vector2(0,0));

◉ c. All of the above

○ d. Sprite s= Instantiate(sprite) as Sprite;

The correct answer is: Sprite s=Sprite.Create(textureRef,new Rect(0,0,1,1),new Vector2(0,0));

Question 19

Complete

Mark 1.00 out of 1.00

Using .... to remove a GameObject, component or asset.

Select one:

○ a. moveGameObject property

◉ b. Destroy method

○ c. MoveGameObjects method

○ d. destroy method

The correct answer is: Destroy method

Question 20

Complete

Mark 1.00 out of 1.00

to clones the object original and returns the clone.

Select one:

○ a. DestroyImmediate method

○ b. Destroy method

○ c. InstantiateImmediate method

◉ d. Instantiate method

The correct answer is: Instantiate method

Question 21

Complete

Mark 0.00 out of 1.00

Prototype Pattern includes...

Select one:

○ a. Client, Prototype Registry, class

○ b. class, Prototype, Client

○ c. class, Prototype, Prototype Registry

◉ d. Prototype, Client, Prototype Registry

The correct answer is: Client, Prototype Registry, class

Question 22

Complete

Mark 1.00 out of 1.00

Which node is the root node of the following ternary tree?
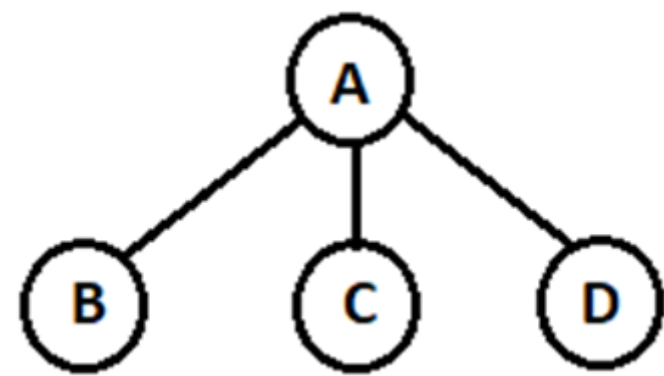
Select one:
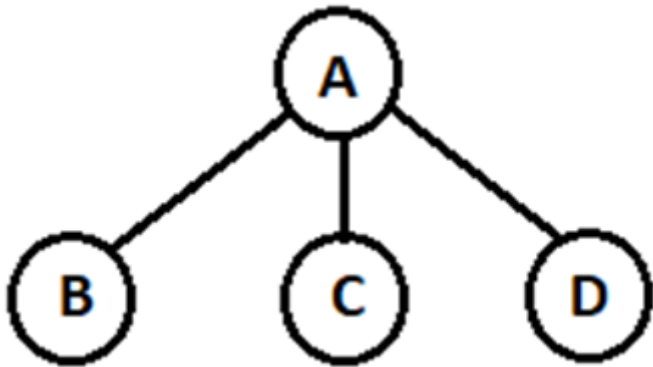
○ a. D

◉ b. A

○ c. C

○ d. B

The correct answer is: A

Question 23

Complete

Mark 0.00 out of 1.00

Is Node A sibling of Node D in the given ternary tree?

Select one:

○ a. True

○ b. False

The correct answer is: False

Question 24

Complete

Mark 1.00 out of 1.00

What is the value of the postfix expression 6 3 2 4 + – *?

Select one:

◉ a. -18

○ b. 40

○ c. 74

○ d. 1

The correct answer is: -18

Question 25

Complete

Mark 1.00 out of 1.00

What is the depth of the root node of the ternary tree?

Select one:

○ a. 2

◉ b. 0

○ c. 1

○ d. 3

The correct answer is: 0

Question 26

Complete

Mark 1.00 out of 1.00

Process of removing an element from stack is called _____

Select one:

○ a. Push

○ b. Evaluation

○ c. Create

◉ d. Pop

The correct answer is: Pop

Question 27

Complete

Mark 1.00 out of 1.00

Entries in a stack are "ordered". What is the meaning of this statement?

Select one:

○ a. A collection of stacks is sortable

○ b. Stack entries may be compared with the '<' operation

◉ c. There is a Sequential entry that is one by one

○ d. The entries are stored in a linked list

The correct answer is: There is a Sequential entry that is one by one

Question 28

Complete

Mark 0.00 out of 1.00

Advantage of prototype pattern?

Select one:

○ a. It reduces the need of sub-classing

○ b. The clients can get new objects without knowing which type of object it will be.

◉ c. All of others

○ d. It hides complexities of creating objects

○ e. It lets you add or remove objects at runtime

The correct answer is: It hides complexities of creating objects

Question 29

Complete

Mark 0.00 out of 1.00

The inertia tensor of this body, defined as a diagonal matrix in a reference frame positioned at this body's center of mass and rotated by Rigidbody.inertiaTensorRotation, using...

Select one:

◉ a. intertiaTensor variable

○ b. intertiaTensor constant

○ c. intertiaTensor property

○ d. intertiaTensor method

The correct answer is: intertiaTensor property

Question 30

Complete

Mark 0.50 out of 1.00

Applications of Singleton classes? (Choose many)

Select one or more:
- ☑ a. Configuration File
- ☐ b. Cache
- ☐ c. Logger
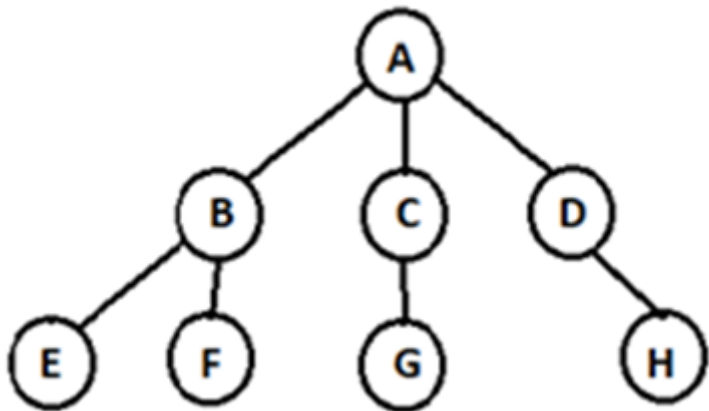- ☑ d. Hardware interface access

The correct answers are: Cache, Logger, Configuration File, Hardware interface access

Question 31

Complete

Mark 1.00 out of 1.00

Which nodes are the siblings of Node B of given ternary tree?

Select one:
- ◉ a. Both E and F
- ○ b. F
- ○ c. E
- ○ d. C

The correct answer is: Both E and F

Question 32

Complete

Mark 1.00 out of 1.00

How many child nodes does each node of Ternary Tree contain?

Select one:
- ○ a. 4
- ◉ b. 3
- ○ c. 6
- ○ d. 5

The correct answer is: 3

Question 33

Complete

Mark 0.00 out of 1.00

Using .... to show the velocity relative to the rigidbody at the point relativePoint.

Select one:
- ○ a. getRelativePointVeloctiy
- ○ b. getPointVelocity
- ○ c. GetRelativePointVeloctiy
- ● d. GetPointVelocity

The correct answer is: GetRelativePointVeloctiy

Question 34

Complete

Mark 1.00 out of 1.00

What can be a set as the external editor for Unity?

Select one:
- ○ a. C# language
- ○ b. Assets
- ● c. Once Visual Studio
- ○ d. One GUI

The correct answer is: Once Visual Studio

Question 35

Complete

Mark 0.00 out of 1.00

How many separate systems which Unity supports input through?

Select one:
- ○ a. Four
- ○ b. Two
- ○ c. None of the above
- ○ d. One
- ● e. Three

The correct answer is: Two

Question 36

Complete

Mark 0.00 out of 1.00

Here is an infix expression: 4 + 3*(6*3-12). Suppose that we are using the usual stack algorithm to convert the expression from infix to postfix notation. The maximum number of symbols that will appear on the stack AT ONE TIME during the conversion of this expression?

Select one:
- ○ a. 4
- ○ b. 2
- ○ c. 1
- ● d. 3

The correct answer is: 4

Question 37

Complete

Mark 1.00 out of 1.00

to get a reference to a component of type T on the same GameObject as the component specified, or any parent of the GameObject, you use...

Select one:

- ○ a. getComponents method
- ○ b. getComponents property
- ● c. GetComponents method
- ○ d. GetComponents property

The correct answer is: GetComponents method

Question 38

Complete

Mark 1.00 out of 1.00

Which of the following is not an inherent application of stack?

Select one:

- ○ a. Reversing a string
- ○ b. Implementation of recursion
- ○ c. Evaluation of postfix expression
- ● d. Job scheduling

The correct answer is: Job scheduling

Question 39

Complete

Mark 1.00 out of 1.00

Singleton Pattern is:

Select one:

- ○ a. Behavioral Design Pattern
- ○ b. Structural Design Pattern
- ● c. Creational Design Pattern
- ○ d. None of the above

The correct answer is: Creational Design Pattern

Question 40

Complete

Mark 1.00 out of 1.00

The data structure required for Breadth First Traversal on a graph is....

Select one:

- ○ a. Array
- ● b. Queue
- ○ c. Tree
- ○ d. Stack

The correct answer is: Queue

Question 41

Complete

Mark 0.00 out of 1.00

Colliders interact with each other differently depending on how their Rigidbody components are configured. Following important configurations are?

Select one:

○ a. The Static Collider

○ b. All of the above

◉ c. The Rigidbody Collider

○ d. The Kinematic Rigidbody Collider

The correct answer is: All of the above

Question 42

Complete

Mark 1.00 out of 1.00

Which of the following properties is associated with a queue?

Select one:

○ a. Last In First Out

○ b. First In Last Out

◉ c. First In First Out

○ d. Last In Last Out

The correct answer is: First In First Out

Question 43

Complete

Mark 0.00 out of 1.00

..... controls whether physics will change the rotation of the object.

Select one:

○ a. None of the above

○ b. freezeRotation

◉ c. RotationFree

○ d. FreezeRotation

The correct answer is: freezeRotation

Question 44

Complete

Mark 1.00 out of 1.00

The prefix form of A-B/ (C * D ^ E) is?

Select one:

○ a. -ABCD*^DE

○ b. -/*^ACBDE

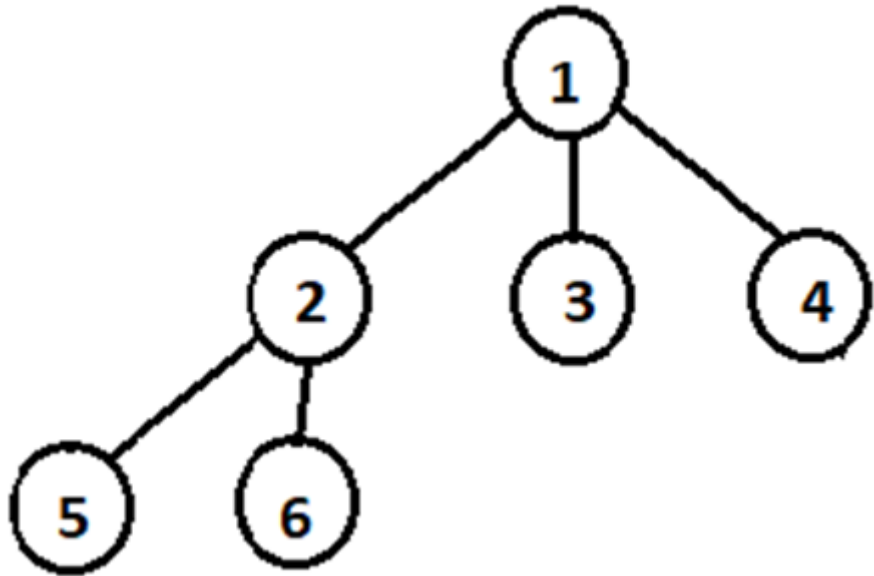◉ c. -A/B*C^DE

○ d. -A/BC*^DE

The correct answer is: -A/B*C^DE

Question 45

Complete

Mark 1.00 out of 1.00

Which node is the parent node of Node 5?

Select one:

○ a. 3

◉ b. 2

○ c. 4

○ d. 1

The correct answer is: 2

Question 46

Complete

Mark 1.00 out of 1.00

Methods to instantiate Singleton class: (Choose 2)

Select one or more:

☐ a. Late initialization

☑ b. Early initialization

☑ c. Lazy initialization

☐ d. Hard initialization

The correct answers are: Early initialization, Lazy initialization

Question 47

Complete

Mark 1.00 out of 1.00

The prefix form of an infix expression (p + q) − (r * t) is?

Select one:

○ a. − +pqr * t

◉ b. − +pq * rt

○ c. − + * pqrt

○ d. + pq − *rt

The correct answer is: − +pq * rt

Question 48

Complete

Mark 1.00 out of 1.00

If the elements "A", "B", "C" and "D" are placed in a queue and are deleted one at a time, in what order will they be removed?

Select one:

○ a. ABCD

○ b. DCBA

○ c. DCAB

○ d. ABDC

The correct answer is: ABCD

Question 49

Complete

Mark 1.00 out of 1.00

.... returns the zero-based index of the first occurrence of a particular value

Select one:

○ a. None of the above

○ b. All of the above

◉ c. IndexOf method

○ d. IndexOf property

The correct answer is: IndexOf method

Question 50

Complete

Mark 0.50 out of 1.00

An implementation of singleton class should have which of the following properties (Choose2):

Select one or more:

☐ a. It shouldn't have any instances

☐ b. Instance should be globally accessible

☑ c. Instance should be private

☑ d. It should have only one instance

The correct answers are: It should have only one instance, Instance should be globally accessible

◄ QUIZ 3_PRU221M

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