In C++ programming, a variable which stores a reference to another variable is called a\_\_\_\_

\*

1 point

**Pointer**

Constructor

Asterisks

Structure

A program that translates a high-level language like C++ to a machine language is called a \_\_\_\_\_

1 point

Disassembler

Coder

**Compiler**

Assembler

In C++ programming, assume that the value of the variable **A is 0** and the value of the variable **B is 10**. Which one of the following alternatives is false?  \*

1 point

(B = = 10) || (x < y)

(A > 20) || (B >5)

(A >10) && (x < y

**(A= =0) && (B < 20)**

Which one of the following  format is write about functions in structural Programming:

\*

1 point

Type name { parameter1, parameter2, ...} (statement )

Name type ( parameter1, parameter2, ...) { statement }

**Type name ( parameter1, parameter2, ...) {statement }**

Name type { parameter1, parameter2, ...} (statement )

 Which of the following is a valid function call (assuming the function add exists & have two parameters)?\*

1 point

add;

**add(a,b);**

add a,b;

add(int a, int b);

A function is said to be recursive function\_\_\_\_\_\_\_\_\_\_?\*

1 point

If the function calls another function2 & Function3

**If the main function calls many functions**

If the main function calls another one function

If the function calls itself

 What will be the return type of a function, if the function does not have a return value?

\*

1 point

B. Float

**D. Void**

C. Double

A. Int

 \_\_\_\_is a header file which permits writing of data to a file.\*

1 point

ofstream

ifstream

**istream**

fstream

 Which one of the following statements are true?\*

1 point

Structure is collection of homogenous members

Individual values of the Structure are called members

It is possible to initialize the Structure up on its defining

**All are correct**

 \_\_\_\_\_\_\_\_\_ a Variable that is available anywhere within your program.

1 point

**A. Global Variable**

B. Limited Variables

C. Local Variable

D. Partial Variable

If a class is named Student, the class constructor name is\_\_\_\_\_\_\_\_\_\_\_..

\*

1 point

Any legal java identifier

Any legal java identifier starting with s

Student

**Student constructor**

A visibility modifier that makes methods and data fields accessible only from within its own class.  \*

1 point

Default

protected

public

**private**

The keyword used to create subclass/derived class in inheritance is\_\_\_\_\_\_\_\_\_\_\_

\*

1 point

Implement

Implements

**extend**

extends

Which of the following is not valid variable in java?

\*

1 point

A$\_2

By2

Java

**A@2$**

A blue print of an object is called \_\_\_\_\_\_\_\_\_.\*

1 point

operation

method

**class**

Attribute

16. \_\_\_\_\_\_It defines how and where data are organized in physical data storage

\*

1 point

**Internal Schema**

Conceptual Schema

External Schema

External and Conceptual Schema

 During modeling your data, Entity Relationship is applied at

\*

1 point

Applications and security

Physical refinement

**Conceptual database**

Schema refinement

Criteria that should not be considered when evaluating or assessing requirement analysis?

\*

1 point

Correctness

Need assessment

Consistency

**Speed**

The SQL command that you use to define the primary key for a existing table called 'Employee' with the primary column to be 'empid'?

1 point

**ADD TABLE Employee ADD PRIMARY KEY (empid)**

ATTACH TABLE Employee ADD PRIMARY KEY (empid)

ADD TABLE Employee ATTACH PRIMARY KEY (empid)

DALTER TABLE Employee ADD PRIMARY KEY (empid)

20.     While checking normalization process,  the problem that doesn’t exist on transitive dependency is

\*

1 point

Modification Anomaly

Revoke Anomaly

**Insertion Anomaly**

Deletion Anomaly

You need to produce a report for mailing labels for customers. The mailing label must have only the customer name and address. The CUSTOMERS table has these columns, ID ,NAME,ADDRESS,PHONE  ,the SELECT statement to accomplishes this task?

\*

1 point

**SELECT name, address FROM customers;**

SELECT\*FROM customers;

SELECT id, name, address, phone FROM customers;

SELECT cust\_name, cust\_address FROM customers;

 If the maximum cardinality is equal to 1 in both directions of a relationship, then it is classified as:

\*

1 point

Optional

Many-to-many

**One-to-one**

One-to-many

How do change the PRICE of BOOK  whose id =B001 to value of  600

\*

1 point

CHANGE BOOK SET PRICE =600 Where ID =’B001’;

UPDATE TO CHANGE BOOK SET PRICE =600 Where ID =’B001’;

**UPDATE BOOK SET PRICE =600 Where ID =’B001’;**

GRANT BOOK SET PRICE =600 Where ID =’B001’;

While listing limitation of File Processing System identify the wrong statement?\*

1 point

Difficult in accessing data

Data isolation and integrity.

Data redundancy & inconsistency available.

**Concurrent access is possible.**

The Entity Relationship (E-R) Model

\*

1 point

Entities are represented by circle

Attributes are represented by rectangle

**It represents conceptual view**

It corresponds to row

Removal of transitivity property should be full filled in

\*

1 point

First Normal form

**Fourth Normal form**

Third Normal form

Second Normal form

If relation R has 5 tuples and relation S has also 7 tuples, then Cartesian product of R and S will have

1 point

5+7 tuples

7-5 tuples

**5X7 tuples**

5/7 tuples

28.   How do you prevent system privileges deletion and updating authority on PRICE and YEAR  column of the CATALOGUE table from user Mohammed

1 point

A. GRANT DELETE, UPDATE (price,year) ON catalogue From Mohammed

B. ALLOW DELETE, UPDATE (price,year) ON catalogue From Mohammed

C. REVOKE DELETE, UPDATE (price,year) ON catalogue From Mohammed

**D. DENY DELETE, UPDATE (price,year) ON catalogue From Mohammed**

The language associated with a database management system that is employed by end users and programmers to alter data values in the database is the:\*

1 point

Data translation language.

Data definition language.

**Data manipulation language.**

Data presentation language.

30.  Which of the following is a type of computer architecture?

1 point

A. Microarchitecture

B. Harvard Architecture

C. Von-Neumann Architecture

**D. All of the mentioned**

31.  Which one is not a combinational circuit?

1 point

A. Encoder

B. Decoder

C. Multiplexer

D. De-multiplexer

**E. Register**

32. In a \_\_\_\_\_\_\_\_\_ cache organization, cache permits data to be stored in any cache block.

1 point

A. Direct Mapped

B. Set Associativity

**C. Fully Associative**

D. All

33. Which one used to translate virtual addresses into physical addresses when we are implementing the concept of Virtual memory?

1 point

A. LRU

B. FIFO

**C. Memory Management Unit**

D. All

34. In a \_\_\_\_\_\_\_\_ bus, flow is only one-way from the CPU to memory.

1 point

A. Address Bus

B. Data Bus

C. Control Bus

**D. A & C**

35. In memory hierarchy, faster access then\_\_\_\_\_\_\_\_\_.

1 point

**A. Greater cost per bit**

B. Greater capacity

C. Smaller cost per bit

D. All

36. Which Shift register type used to act as a delay element?

1 point

A. Serial-In Serial-Out

**B. Parallel-In Serial-Out**

C. Serial-In Parallel-Out

D. All

37. Which one allows the memory to be divided into fixed sized block in virtual memory concept?

1 point

A. Paging

**B. Segmentation**

C. A&B

D. All

38. Which one of them is a Universal Logic Gates?

1 point

**A. NAND**

B. Ex-OR

C. AND

D. NOT

39. Which of the following is a type of architecture used in the computers nowadays?

1 point

A. Microarchitecture

B. Harvard Architecture

**C. Von-Neumann Architecture**

D. System Design

40.  Which one of the following is not component of data communication?

1 point

A. Message

B. Medium

**C. Sender**

D. Protocol

There are two types of network topologies from these topologies which one of the following defines how hosts access the media to send data.\*

1 point

**Logical Topology**

Bus Topology

Physical Topology

Star Topology

Segmentation of a data stream happens at which layer of the OSI model?

\*

1 point

Physical

Data Link

Network

**Transport**

When data is encapsulated, which is the correct order?\*

1 point

Data, frame, packet, segment, bit

**Data, segment, packet, frame, bit**

Segment, data, packet, frame, bit

Data, segment, frame, packet, bit

You want to implement a network medium that is not susceptible to EMI. Which type of cabling should you use?

1 point

Coaxial

Category 6 UTP

Microwave

**Fiber-optic**

45. From the following lists which one is not the responsibility (service) of data link layer

1 point

D. Hardware Addressing

C. media access control

**B. Network Addressing**

A. logical link control

Which class of IP address provides a maximum of only 254 host addresses per network ID?

\*

1 point

Class A

Class D

Class B

**Class C**

Which one of the following list is not component of an analogue signals?

\*

1 point

Amplitude

Wavelength

phase

**Discrete pulse**

Communication between a radio station and its listeners involves \_\_\_\_\_\_\_\_\_\_\_\_\_\_ transmission.\*

1 point

full-duplex

**Half-duplex**

Simplex

Automatic

Which of the following does not describe router functions

\*

1 point

**Broadcast forwarding**

Internetwork communication

Packet filtering

Packet switching

50. Acknowledgments, sequencing, and flow control are characteristics of which OSI layer?\*

1 point

Layer 2

**Layer 4**

Layer 3

Layer 7

51. The technique of allowing multiple signals to be transmitted at the same time over the same cable is called \_\_\_\_\_\_\_\_\_\_\_\_\_-

1 point

A. Broadcast

B. Multicast

**C. Multiplexing**

D. demultiplexing

52. \_\_\_\_\_Which one is true about binary search tree?

1 point

A. Every node can only have two children

**B. The value on left sub tree of the binary search tree can be equal to the root node value.**

C. Every node should have unique value.

D. All of the above

53. The operation for adding an item to a stack is named to be\_\_\_.

1 point

A. Push

**B. Insert**

C. Add

D. enqueue

54.  \_\_\_\_\_Which operation in stack could result underflow?

1 point

OptA. Push();

B. Is\_empty();

C. Pop();

**D. B and C**

55. While searching from binary tree, how can the index should go?

1 point

A. If the searched key is less than the root, go to left.

**B. If the searched key is larger than the root, go to left.**

C. If the searched key is equal to the root, go to left.

D. None.

56.  Which key word is used to de-allocate the space taken by a node?

1 point

A. delete

B. alloc()

**C. del()**

D. A and B

57. Which one is easier to perform?

1 point

A. Deleting a leaf node

B. Deleting internal node

C. deleting root node

D. A and B

58. Algorithms must terminate after a finite number of steps; What is this characteristics called\_\_

1 point

A. Unambiguous

B. Feasibility

**C. Finiteness**

D. Independent

59. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of an algorithm refers to defining the mathematical bound/framing of its run-time performance?

1 point

**A. Space complexity**

B. Asymptotic analysis

C. Time complexity

D. none of the above

60. Which one of the following algorithms is based on dynamic Programming approach?

1 point

A. Multistage Graph

B. Single source Shortest Path

**C. Merge sort**

D. Chess playing algorithm

61.  Optimal merge pattern is an example of \_\_\_\_\_\_\_\_\_ Algorithm design Approach

1 point

A. Dynamic Programming

**B. Divide and Conquered**

C. Greedy

D. Back tracking

62.  \_\_\_\_\_\_\_\_\_\_\_\_\_algorithm traverses a graph in a Breadth-ward motion and uses a queue to remember to get the next vertex to start a search, when a dead end occurs in any iteration.

1 point

A. Breadth first search

B. Binary search

C. Depth first search

**D. A&C**

63.  The attribute used in the body tag to change the default font color for the page is \_\_\_\_\_\_\_\_.

1 point

**A. Bgcolor attribute**

B. text attribute

C. color attribute

D. link tag

Which one of the following is true about static website?

1 point

A. Its content will not be changed unless the actual webpage file is edited.

B. It is also referred as flat pages or stationary pages.

C. It will be delivered to the users as exactly stored in the files.

D. Its content remains the same for all viewers of the website.

**E. All of the above.**

65. Which one of the following is a server side scripting language?

1 point

A. PHP

B. ASP

C. Python

**D. All of the above**

A pop up box used to display information to user in JavaScript is called \_\_\_\_\_\_\_\_\_\_\_.

1 point

A. Prompt

B. Alert

C. Confirm

**D. All of the above**

What does these code possibly refers to**<link rel="stylesheet" href="styles.css">** ?

1 point

A. Defines a new CSS by the name styles

B. Calls an internal style sheet called styles

**C. Calls an external style sheet called styles**

D. Defines an inline CSS by the name styles

68.  What is the preferred way for adding a background color in HTML?

1 point

A. <body background="yellow">

B. <background>yellow</background>

**C. < body style="background-color: yellow">**

D. <background color="yellow">text<background>

69. What is the method used to get the result from the form data sent with both GET and POST?

1 point

A. $\_REQUEST

B. $\_POST

C. $\_GET

**D. A & B**

70. Which of the following is an optional parameter one while using ***mysqli***\_***connect()*** method?

1 point

A. Localhost

B. Database

C. Username

**D. Password**

From the following list, choose the most appropriate update statement

1 point

A. UPDATE student ID="123";

B. UPDATE student SET ID="123";

**C. UPDATE student SET name="abel" where ID="123";**

D. UPDATE student SET name ="abel"

72. When does page fault occur?\*

1 point

**The deadlock occurs.**

The buffering occurs

The page is present in memory.

The page does not present in memory.

73. Which of the following is a condition that causes deadlock?

1 point

A. Mutual exclusion

B. Hold and wait

C. Circular wait

D. No preemption

**E. All of these**

74.  What is an operating system?

1 point

A. System service provider to the application programs

B. Collection of programs that manages hardware resources

C. Interface between the hardware and application programs

**D. All of above**

75. Which one of the following Scheduling algorithm allocates the CPU first to the process     that requests the CPU first?

1 point

A. Priority scheduling

B. Shortest job scheduling

**C. First-come, first-served scheduling**

D. None of above

What is the ready state of a process?

1 point

A. When process is unable to run until some task has been completed

**B. When process is scheduled to run after some execution**

C. When process is using the CPU

D. None of the mentioned

77. A set of processes is deadlock if \_\_\_\_\_\_\_\_\_\_\_\_

1 point

A. Each process is terminated

**B. All processes are trying to kill each other**

C. Each process is blocked and will remain so forever

D. None of the mentioned

In Operating Systems, which of the following is/are CPU scheduling algorithms?

1 point

A. Priority

B. Round Robin

C. Shortest Job First

**D. All of the mentioned**

79.  In which of the storage placement strategies a program is placed in the largest available hole in the main memory?

1 point

A. Best fit

**B. First fit**

C. Worst fit

D. Buddy

80. A measurement that defines the level of inter-dependability among modules of a program is\_\_ .

1 point

A. Cohesive

**B. Coupling**

C. Design

D. Testing

81.  Which of the following are Advantages of modularization in software design

1 point

A. Smaller components are difficult to maintain

**B. Components with high cohesion can be re-used again**

C. Program can be divided based on functional aspects

D. Desired from security aspect

Which of the following is not element of Requirement Engineering Process?

\*

1 point

1. Software Requirement Specification
2. Feasibility Steady
3. **Software Requirement Design**
4. Requirement Gathering

Which type of test determine if the system meets the entire requirements (functional and nonfunctional)\*

1 point

1. Unit Test
2. Integration test
3. **System test**
4. Acceptance test

84. How is generalization implemented in Object-Oriented software engineering?

1 point

A. Inheritance

**B. Polymorphism**

C. Encapsulation

D. Abstract Classes

85. All of the following are required to develop an effective test except:

1 point

A. Detailed understanding of the system

**B. Application and solution domain knowledge**

C. Knowledge of the testing techniques

D. Skill to specific programming language

86. Use case description commonly contain:

1 point

A. Trigger, associations, guarantee.

**B. Precondition, generalizations, main scenario.**

C. Precondition, main scenario, alternative scenarios

D. None of the above

87. Aggregation, composition, generalization. Which document is created by a system analyst after the requirements are collected from different stakeholders?

1 point

A. Requirement gathering

B. Software Requirement specification

**C. Software Requirement testing**

D. Software Requirement validation

88.  Choose the incorrect statement in terms of Objects.

1 point

A. Objects are abstractions of real-world

**B. Objects can’t manage themselves**

C. Objects encapsulate state and representation information

D. All of the mentioned

Which of the following is a mechanism that allows several objects in a class hierarchy to have different methods with the same name?\*

1 point

1. Aggregation
2. Polymorphism
3. **Inheritance**
4. All of the mentioned

90.  \_\_\_\_\_\_\_\_is a process which translate system specification into a formal or semi formal model.\*

1 point

1. Implementation
2. Elicitation
3. Analysis
4. **Design**

91.  Which of the following is a disadvantage of Object-Oriented Design?

1 point

A. Easier maintenance

B. Objects may be understood as stand-alone entities

C. Objects are potentially reusable components

**D. Objects are difficult to maintain**

92. If a grammar produces more than one leftmost derivation for a sentence, it is called as: \_\_\_\_\_

1 point

**A. Ambiguous grammar**

B. Perfect grammar

C. Associative grammar

D. Precedence

93. 1.      The intersection of a context-free language and a regular language is \_\_\_\_\_\_\_\_

1 point

A. context-free

**B. neither context-free nor regular.**

C. regular but not context-free

D. both regular and context-free.

94. Which one of the following is not part of Turing machine?

1 point

A. Finite control

**B. Input**

C. Tape

D. Head

The output of lexical analyzer is\*

1 point

1. Syntax tree
2. **Strings of characters**
3. A set of tokens
4. set of regular expressions

Which of the following is NOT the primary role of code generator in compiler design?   \*

1 point

1. instruction selection
2. **Declaration of variables**
3. instruction ordering
4. A Register allocation

97. Which one of the following is different from the others?

1 point

A. quadruples

B. triples

**C. tree**

D. indirect triples

When is the type checking usually done?                                \*

1 point

1. During lexical analysis
2. **During syntax analysis**
3. During syntax directed translation
4. During code optimization

99. Which of the following can NOT represents a target Code?

1 point

A. Three address code

**B. Assembly language**

C. Absolute machine code

D. Byte Code

100.  Which of the following is NOT important property of intermediate code representation?

1 point

A. Ease of generation

**B. Ease of manipulation**

C. Register allocation

D. Level of abstraction