Computer Science (Sample Exit Exam)

Multiple Question
Please Read each question Carefully and respond to each question from the given alternatives (each question values one point)

1 In C++ programming, a variable which stores a reference to another variable is called a____

*
1 point
Asterisks
Structure
Constructor
Pointer

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

1 point
A, Compiler
B, Disassembler
C, Coder
D, Assembler

3 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
(A >10) && (x < y
(A > 20) || (B >5)
(A= =0) && (B < 20)
(B = = 10) || (x < y)

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

*
1 point
Type name (parameter1, parameter2, ...) {statement }
Type name { parameter1, parameter2, ...} (statement)
Name type (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(int a, int b);
add(a,b);
A function is said to be recursive function_____? *
1 point
If the main function calls many functions
If the function calls itself
If the function calls another function2 & Function3
If the main function calls another one function

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

*
1 point
D. Void
B. Float
C. Double
A. Int
____is a header file which permits writing of data to a file. *
1 point
ifstream
istream
fstream
ofstream
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 starting with s
Student
Any legal java identifier
Student constructor

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

1 point

protected

public

Default

private

The keyword used to create subclass/derived class in inheritance is_____

*

1 point

extends

Implements

extend

Implement

Which of the following is not valid variable in java?

*

1 point

A@2$

Java

By2

A$_2

A blue print of an object is called _____. *

1 point

operation

Attribute

method

class

16. _____It defines how and where data are organized in physical data storage

*

1 point

Internal Schema

Conceptual Schema

External and Conceptual Schema

External Schema

During modeling your data, Entity Relationship is applied at

*

1 point

Physical refinement

Conceptual database

Applications and security

Schema refinement

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

*
1 point
Consistency
Correctness
Need assessment
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
Insertion Anomaly
Revoke Anomaly
Deletion Anomaly
Modification 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 id, name, address, phone FROM customers;
SELECT cust_name, cust_address FROM customers;
SELECT*FROM customers;

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

*
1 point

Optional
One-to-one
Many-to-many
One-to-many

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

*

1 point
UPDATE BOOK SET PRICE =600 Where ID ='B001';
CHANGE BOOK SET PRICE =600 Where ID ='B001';
UPDATE TO CHANGE 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
Concurrent access is possible.
Data isolation and integrity.
Difficult in accessing data
Data redundancy & inconsistency available.

The Entity Relationship (E-R) Model

*

1 point
It represents conceptual view
Entities are represented by circle
It corresponds to row
Attributes are represented by rectangle

Removal of transitivity property should be full filled in

*

1 point
Third Normal form
Fourth Normal form
Second Normal form
First 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 manipulation language.

Data presentation language.

Data translation language.

Data definition 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
Physical Topology
Bus Topology
Star Topology

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

*

1 point

Physical

Data Link

Transport

Network

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

1 point

Data, segment, frame, packet, bit

Data, frame, packet, segment, bit

Data, segment, packet, frame, bit

Segment, data, packet, frame, bit

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

1 point

Coaxial

Microwave

Fiber-optic

Category 6 UTP

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

1 point

C. media access control

A. logical link control

B. Network Addressing

D. Hardware Addressing

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

*

1 point

Class A

Class B

Class D

Class C

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

*

1 point

Amplitude

phase

Discrete pulse

Wavelength

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

1 point

full-duplex

Simplex

Automatic

Half-duplex

Which of the following does not describe router functions

*

1 point

Packet switching

Broadcast forwarding

Packet filtering

Internetwork communication

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

1 point

Layer 4

Layer 7

Layer 3

Layer 2

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 page does not present in memory.

The buffering occurs

The page is present in memory.

The deadlock occurs.

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
Software Requirement Design
Feasibility Steady
Software Requirement Specification
Requirement Gathering
Which type of test determine if the system meets the entire requirements (functional and nonfunctional) *
1 point
Integration test
System test
Acceptance test
Unit 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
Aggregation
Polymorphism
Inheritance
All of the mentioned
90. _____is a process which translate system specification into a formal or semi formal model. *
1 point
Design
Implementation
Analysis
Elicitation
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
set of regular expressions
Syntax tree
A set of tokens
Strings of characters
Which of the following is NOT the primary role of code generator in compiler design?   *
1 point
Declaration of variables

ARegister allocation
instruction selection
instruction ordering
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
During syntax directed translation
During syntax analysis
During code optimization
During lexical analysis
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

Unable to save your draft