1 Consider

```
nav ul {

list-style-type: none;

margin: 0;

padding: 0;

}
```

What problem does this solve when creating a navigation bar?

A. a.
   Removes bullet points and default spacing, allowing custom layout
B. b.
   Aligns the navbar to the right of the page
C. c.
   Adds hover effects to list items
D. d.
   Converts the list into a dropdown menu

Ans. **a. Removes bullet points and default spacing, allowing custom layout.**

2 Which AI approach most directly supports understanding biological intelligence behavior as a scientific goal?
Question 2Answer

A. a.
   Weak AI
B. b.
   Applied AI
C. c.
   Cognitive AI
D. d.
   Strong AI

Ans. c. Cognitive AI

3 In client-server database architecture, what is the primary role of the server?
Question 3Answer

A. a.
   Provide the GUI for end users
B. b.
   Initiate all network connections and poll clients for updates

C. c.
Store and manage shared data, enforce ACID properties, and process client requests
D. d.
Cache all user sessions locally for offline access

Ans. c. Store and manage shared data, enforce ACID properties, and process client requests.

4 Which automaton is powerful enough to recognize the language $L = \{a^n b^n c^n \mid n \geq 1\}$?
Question 4Answer
A. a.
DFA
B. b.
Linear Bounded Automaton (LBA)
C. c.
NFA
D. d.
Pushdown Automaton (PDA)

Ans. b. Linear Bounded Automaton (LBA)

5 In two-phase locking (2PL), during which phase may a transaction acquire locks but not release any?
Question 5Answer
A. a.
Growing phase
B. b.
Commit phase
C. c.
Validation phase
D. d.
Shrinking phase

Ans. a. Growing phase

6 To extend the connectivity of processor bus we use:
Question 6Answer
A. a.
SCSI
B. b.
PCI
C. c.
Controllers
D. d.
Multi bus

ans. d. Multi bus

7 Combinational circuit differ from sequential circuit primarily because
Question 7Answer
A. a.
Combinational circuit cannot be built using logic circuit
B. b.
The output of combinational circuit depends only on the present input, not on past output.
C. c.
Sequential circuit have no feedback while combinational circuit do
D. d.
The combinational circuit requires clock signal, but sequential circuit do not

Ans. b. The output of combinational circuit depends only on the present input, not on past output.

8 Why is Greedy Best-First Search not guaranteed to be optimal or complete?
A. a.
It ignores path cost g(n) and relies only on h(n)
B. b.
It always chooses the shallowest node
C. c.
It expands nodes in FIFO order
D. d.
It requires full knowledge of the goal state in advance

Ans. a. It ignores path cost g(n) and relies only on h(n).

9 From the following statement which is correct about this pointer in c++?
A. a.
This pointer passed as hidden argument in all non-static variables of the class.
B. b.
This pointer passed as hidden argument in all static variables of the class.
C. c.
This pointer passed as hidden argument in all static function of the class.
D. d.
This pointer passed as hidden argument in all function of the class.

Ans. a. This pointer passed as hidden argument in all non-static variables of the class.

10 In class diagram, if class Car has solid diamond points to class Engine, what does this indicates?
Question 10Answer
A. a.
Car uses Engine temporarily
B. b.
Engine can exist independently of the Car

C. c.
Engine is the part of Car and cannot exist without it
D. d.
Car inherits from Engine

Ans. c. Engine is the part of Car and cannot exist without it.

11 The amount of time the algorithm takes on the smallest possible set of inputs is called_____
Question 11Answer
A. a.
Average time
B. b.
Small time
C. c.
Worst time
D. d.
Best time

Ans. d. Best time

12 For a weak entity set to be meaningful, it must be associated with another entity set, called the
Question 12Answer
A. a.
Identifying set
B. b.
Strong entity set
C. c.
Neighbor set
D. d.
Owner set

Ans. b. Strong entity set

13 Which one of the following is not the application level service?
Question 13Answer
A. a.
Proxies and agents
B. b.
Installing a new service
C. c.
E-mail configuration
D. d.
Quality of service

Ans. b. Installing a new service

14 A language that allows the DBA or user to describe and name the entities, attributes, and relationships required for the application is_____
Question 15Answer
A. a.
Transaction control language (TCL)
B. b.
Data control language (DCL)
C. c.
Data Manipulation Language (DML)
D. d.
Data Definition Language (DDL)

Ans. d. Data Definition Language (DDL)

15 Which one of the following is linear data structure?
Question 16Answer
A. a.
Tree
B. b.
Array
C. c.
Queue
D. d.
Linked list

Ans. b. Array

16 What is the main purpose of syntax-directed translation in a compiler?
A. a.
To interleave semantic analysis with syntax analysis using attributes attached to grammar symbols
B. b.
To generate optimized machine code directly
C. c.
To tokenize the source code
D. d.
To replace the parser with a finite automaton

Ans. a. To interleave semantic analysis with syntax analysis using attributes attached to grammar symbols.

17 What will be the output of the following program segment?

public class Calculation {

```
public static void main(String[] args) {

int sum = 0;

for(int j = 1; j<=10; j++) {

sum = sum + j;

}

System.out.println(+sum);

}
```

A. a.
   55
B. b.
   44
C. c.
   33
D. d.
   66

Ans. a. 55

18 Which keyword is used in Java to create a subclass that inherits from a superclass?
Question 19Answer

A. a.
   Inherits
B. b.
   Superclass
C. c.
   Extends
D. d.
   Implements

Ans. c. Extends

19 What is the output of the following C++ code fragment?

```
Int a=6, b=8;

Int x=2, y=4;

Int c(x>y? (a--; x): (b--; y));
```

Cout<<”a”<<a;

Cout<<” b=”<<b;

Cout <<” c=”<<c;

A. a.
   a=6 b=5 c=4
B. b.
   a=6 b=7 c=5
C. c.
   a=8 b=6 c=5
D. d.
   a=6 b=7 c=4

Ans. **d. a=6 b=7 c=4**

20 _____is a collection of related fields that can be treated as a unit by some application program.
Question 21Answer

A. a.
   Rows
B. b.
   Field
C. c.
   Record
D. d.
   Database

Ans. c. Record

21 Straight directed translation uses:
Question 22Answer

A. a.
   Purely lexical rules
B. b.
   Backtracking algorithms
C. c.
   Grammar without attributes
D. d.
   Grammar with sematic rule

Ans. d. Grammar with semantic rule

22 Which one of the following is the first operation or step in CPU instruction cycle?
Question 23Answer

A. a.
Executing the instruction
B. b.
Handling interrupt
C. c.
Decoding the instruction
D. d.
Fetching the instruction

Ans. d. Fetching the instruction

23 Which search strategy tries to expand the node that is closest to the goal, on the grounds that this is likely to lead to a solution quickly; Thus, it evaluates nodes by using just the heuristic function: f (n) = h (n).
A. a.
Uniform-cost search
B. b.
Greedy best-first search
C. c.
Depth-first search
D. d.
A* search

Ans. b. Greedy best-first search

24 Which one of the following is a top-down parser without backtracking?
Question 25Answer
A. a.
LR parser
B. b.
Brute force parser
C. c.
Operator precedence parser
D. d.
Predictive parser

ans. d. Predictive parser

25 How many layers are there in OSI reference model?
Question 26Answer
A. a.
7
B. b.
6
C. c.
5

D. d.
4

Ans. a. 7

26 Which one of the following is a computer structural component that provides for communication among CPU, main memory and I/O?
Question 27Answer
A. a.
System unit
B. b.
Computer network
C. c.
CPU
D. d.
System interconnection

Ans. d. System interconnection

27 Assume that we are able to specify that Mr. Getahun can view the database record, but cannot change the value of the record. Which security management technique was used in this scenario?
A. a.
Access Control
B. b.
Availability
C. c.
Non-repudiation
D. d.
Integrity

Ans. a. Access Control

28 Suppose, a developer proposes using deferred update with no checkpoints in a high-transaction OLTP system. What is the most serious drawback?
Question 29Answer
A. a.
Log scans become prohibitively expensive after long uptime
B. b.
Increased disk I/O due to frequent page copying
C. c.
Shared locks cannot be used
D. d.
View serializability cannot be ensured

ans. a. Log scans become prohibitively expensive after long uptime.

29 Which one of the following function of operating system is categorized under process management?
Question 30Answer
A. a.
Allocates the device in the efficient way
B. b.
De-allocates the resources.
C. c.
Allocates the memory when the process requests it to do so.
D. d.
Allocates the processor (CPU) to a process

Ans. d. Allocates the processor (CPU) to a process.

30 Which of the following statements is TRUE?
A. a.
Every regular language is context-free.
B. b.
Every context-free language is regular.
C. c.
Every context-sensitive language is regular.
D. d.
Every recursively enumerable language is recursive

Ans. a. Every regular language is context-free.

31 _____ is a data transfer method in computer organization and architecture that allows an I/O device to transfer data directly to or from memory without the involvement of the CPU.
Question 32Answer
A. a.
Asynchronous data transfer
B. b.
Direct Memory Access (DMA)
C. c.
Interrupt-driven transfer
D. d.
Programmed I/O transfer

Ans. b. Direct Memory Access (DMA)

32 Which one of the following php method is used to retrieve the information from the form control through the parameters sent in the URL?
Question 33Answer
A. a.
$_REQUEST[]

B. b.
$_POST[]
C. c.
$_GET[]
D. d.
isset()

Ans. c. $_GET[]

33 Which statement is NOT true about digital signature?
A. a.
Digital signature is not encryption algorithm
B. b.
In digital signature Sender encrypts message with its private key
C. c.
In digital signature Sender encrypts message with its public key
D. d.
Digital signature provides authentication services

Ans. c. In digital signature, Sender encrypts message with its public key.

34 Which one of the following ip address class uses first two octets for network addresses and last two for host addressing?
Question 35Answer
A. a.
Class C
B. b.
Class D
C. c.
Class A
D. d.
Class B

Ans. d. Class B

35 Which of the following best defines a heuristic in the context of AI search?
Question 36Answer
A. a.
A function that estimates how close a state is to the goal
B. b.
A guaranteed optimal path to the goal
C. c.
A method that always avoids revisiting states
D. d.
A brute-force enumeration of all possible states

Ans. a. A function that estimates how close a state is to the goal.

36 Which one of the following party performs the technical evaluation work, using the evidence supplied by the developers, and additional testing of the product, to confirm that it satisfies the functional and assurance requirements specified in the security target?
Question 37Answer

A. a.
Evaluator
B. b.
Certifier
C. c.
Sponsor
D. d.
Developer

Ans. a. Evaluator

37 Assume that you have a huge company like university; bank industry, etc. have their own data center to store and control the different type of the data. Which type of RAID technology is the most preferable to use?
Question 38Answer

A. a.
RAID level 3
B. b.
RAID level1
C. c.
RAID level 2
D. d.
RAID level 0

Ans. b. RAID level 1

38 Which analysis technique is INAPPROPRIATE for determining the lower bound of comparison-based sorting, and why?

A. a.
Decision tree model — because it assumes only array indexing is allowed
B. b.
Recurrence relations — because sorting isn't naturally recursive
C. c.
Asymptotic analysis — because it ignores constants
D. d.
Decision tree model — because it gives an information-theoretic lower bound of $\Omega(n\log_{f0} n)\Omega(\text{nlogn})$

Ans. b. Recurrence relations — because sorting isn't naturally recursive.

39 In CSS, which property is used to change the text color of an element?
Question 40Answer

A. a.
text-color
B. b.
font-color
C. c.
color
D. d.
Foreground

Ans. c. color

40 From the flowing function which one is used to create the table
Question 41Answer

A. a.
CREATE table_name (column_name, column type);
B. b.
CREATE table_name (column_type, column name);
C. c.
CREATE TABLE table_name (column_name, column type);
D. d.
CREATE TABLE table_name (column_type, column name);

Ans. c. CREATE TABLE table_name (column_name, column type);

41 What is the primary function of an operating system?
Question 42Answer

A. a.
To connect to the internet
B. b.
To create documents and spreadsheets
C. c.
To design computer hardware
D. d.
To act as an intermediary between users and computer hardware

Ans. d. To act as an intermediary between users and computer hardware.

42 How much time units or T(n) taken to compute the following piece of code?

int total(int n)

{

ini

```
int sum=0;

for (int i=1;i<=n;i++)

      sum=sum+1;

 return sum;

 }
```

A. a.
   5n+5
B. b.
   4n2+4
C. c.
   6n+2
D. d.
   4n+4

ans. c. 6n+2

43 An object oriented principle that contains information in an object, exposing only selected information is_____.
Question 44Answer
A. a.
   Abstraction
B. b.
   Inheritance
C. c.
   Polymorphism
D. d.
   Encapsulation

Ans. d. Encapsulation

44 Stack is follows ____policy:
Question 45Answer
A. a.
   LIFO
B. b.
   FIFO

C. c.
FILO
D. d.
FCFS

Ans. a. LIFO

45 From the following alternatives which one is FALSE about database system?
A. a.
It is very difficult to protect a file under the system
B. b.
In database system the user is not required to write the procedures
C. c.
In database system, DBMS provides a good protection mechanism.
D. d.
It contains a wide variety of sophisticated techniques to store and retrieve the data.

Ans. a. It is very difficult to protect a file under the system.

46 Which one of the following is categorized under Log based Recovery Techniques in database?
Question 47Answer
A. a.
Recovery in Multi-database Systems
B. b.
ARIES Recovery Algorithm
C. c.
Shadow Paging Technique
D. d.
Deferred Database Modification

Ans. b. ARIES Recovery Algorithm

47 What is the first step to convert context free grammar (CFG) into Greibach Normal Form (GNF)?
Question 48Answer
A. a.
Convert the grammar into CNF
B. b.
If any production rule in the grammar is not in GNF form, convert it.
C. c.
Convert the grammar into GNF
D. d.
If the grammar exists left recursion, eliminate it.

Ans. d. If the grammar exists left recursion, eliminate it.

48 A user installs a new printer. The OS automatically detects and configures it. This is an example of:
Question 49Answer

A. a.
Plug-and-play functionality
B. b.
Manual driver installation
C. c.
Manual hardware management
D. d.
Resource allocation

Ans. a. Plug-and-play functionality

49 Which of the following is NOT property of an algorithm?

A. a.
Finiteness
B. b.
Definiteness
C. c.
Correctness
D. d.
Platform dependence

Ans. d. Platform dependence

50 Which Redundant Array of Independent Disks (RAID) is known by striping with parity and fault tolerance?
Question 51Answer

A. a.
RAID 2
B. b.
RAID 1
C. c.
RAID 5
D. d.
RAID 0

Ans. c. RAID 5

51 Assume that you are computer science expert and you need to develop large programs within short period of time. Finally, you have planned to provide portable program to the concerned body. Which type of programming language is preferable for the above scenario?
Question 52Answer

A. a.
Low level
B. b.
Machine level
C. c.
High level
D. d.
Assembly

Ans. c. High level

52 Which type of heuristic search strategy that evaluates nodes by combining g (n), the cost to reach the node, and h (n.), the cost to get from the node to the goal: f (n) = g (n) + h (n) Since g(n) gives the path cost from the start node to node n, and h(n) is the estimated cost of the cheapest path from n to the goal, we have f (n) = estimated cost of the cheapest solution through n ?
A. a.
A* search
B. b.
Greedy Best-First Search
C. c.
Uniform-cost search
D. d.
Depth-first search

Ans . A* search

53 If input is “a” is for syntax tree, which function is used to create tree?
Question 54Answer
A. a.
mknode(num, value)
B. b.
mkleaf(num, value)
C. c.
mkleaf(id, entry)
D. d.
mknode(op, left, right)

Ans. d. mknode(op, left, right)

54 Suppose Mr. Negesa might act as Mr. Dereje and send message to Registrar X, the registrar might be lead to believe that message indeed come from Mr. Dereje. What types of attack Mr. Negesa has committed?
A. a.
Denial of service

B. b.
Modification of message
C. c.
Masquerade
D. d.
Replay

Ans. c. Masquerade

55 From the following statement which one is disadvantage of waterfall model?
Question 56Answer
A. a.
model is simple and easy to understand and use
B. b.
It is easy manage due to the rigidity of the model
C. c.
Not suitable for projects where requirements are at a moderate to high risk of changing
D. d.
In this model phases are processed and completed one at a time

Ans. c. Not suitable for projects where requirements are at a moderate to high risk of changing.

56 Consider a directed line(->) from the relationship set advisor to both entity sets instructor and student. This indicates _____ cardinality
A. a.
Many to one
B. b.
Many to many
C. c.
One to one
D. d.
One to many

Ans. a. Many to one

57 In a system, resources cannot be forcibly taken from processes; they must be released voluntarily. Which deadlock condition does this represent?
Question 58Answer
A. a.
No Preemption
B. b.
Hold and Wait
C. c.
Mutual Exclusion

D. d.
Circular Wait

Ans. a. No Preemption

58 Which statement is WRONGLY described about code generation?
A. a.
Code generation can be considered as the start phase of compilation
B. b.
The target program is the output of the code generator
C. c.
The code generation phase needs complete error-free intermediate code as an input requires
D. d.
It used to produce the target code for three-address statements.

Ans. a. Code generation can be considered as the start phase of compilation.

59 _____is a service that allows organizations and individuals to post a website or a web page onto the Internet.
Question 60Answer
A. a.
Web hosting
B. b.
Internet service provider
C. c.
Web client
D. d.
Domain name registration

Ans. a. Web hosting

60 In singly linked list, the node contains
Question 61Answer
A. a.
Data and index
B. b.
Data and one pointer (the next node)
C. c.
Only data
D. d.
Data and two pointers

Ans. b. Data and one pointer (the next node)

61 Which of the following statement is non-functional requirement?
Question 62Answer

A. a.
The system allow user to generate PDF report.
B. b.
The system respond to user's request within 2 second under normal load
C. c.
The system allow user to store data on relational database
D. d.
The system allow user to submit emergency report

Ans. b. The system respond to user's request within 2 seconds under normal load.

62 In object design, what does the contract typically includes?
Question 63Answer

A. a.
The class diagram and sequence diagram
B. b.
Project budget and timeline
C. c.
Invariants, preconditions, post conditions
D. d.
The use case names and actors role

Ans. c. Invariants, preconditions, post conditions.

63 Which of the following OSI layers is NOT correctly matched to its corresponding data Units (PDU)?

A. a.
Application layer ---> Data
B. b.
Transport layer ---> Segment
C. c.
Physical layer ---> Bit
D. d.
Network layer ---> Frame

Ans. d. Network layer ---> Frame.

64 Which data structure follows LIFO principle?
Question 65Answer

A. a.
Graphs
B. b.
Queues

C. c.
Stacks
D. d.
Trees

Ans. c. Stacks

65 Consider the following code snippet

class Animal { void sound() { System.out.println("Animal sound"); } }

class Dog extends Animal { void sound() { System.out.println("Bark!"); } }

Which OOP concept is illustrated when Dog provides its own version of sound?

A. a.
Method overriding
B. b.
Method overloading
C. c.
Abstraction
D. d.
Encapsulation

Ans. a. Method overriding

66 Which type of grammar is used to generate all possible patterns of strings in a given formal language?
Question 67Answer
A. a.
Context-free
B. b.
Context-sensitive
C. c.
Recursively enumerable
D. d.
Regular

Ans. c. Recursively enumerable

67 Which tool is used to troubleshoot the network connectivity?
Question 68Answer
A. a.
Ipconfig
B. b.
Ping

C. c.
Encryption
D. d.
Firewall

Ans. b. Ping

68 The time complexity for binary search is_____
A. a.
O(n*log(n)2)
B. b.
O(n2)
C. c.
O(n)
D. d.
O(logn)

Ans. d. O(log n)

69 Which type of access specifier is accessible within the same package or subclasses in a different package?
Question 70Answer
A. a.
Public
B. b.
Default
C. c.
Private
D. d.
Protected

Ans. d. Protected

70 What is the basic goal of Normalization?
Question 71Answer
A. a.
To decrease data integrity
B. b.
To reduce redundancy
C. c.
To maximize transitive dependency
D. d.
To increase dependency

Ans. b. To reduce redundancy

71 Which protocol is mostly used for communication between client and server in a web application?
Question 72Answer

A. a.
FTP
B. b.
SMTP
C. c.
HTTP
D. d.
SSH

Ans. c. HTTP

72 Which of the following layers is responsible for encryption, translation and compression?
Question 73Answer

A. a.
Presentation layer
B. b.
Data link layer
C. c.
Transport layer
D. d.
Network layer

Ans. a. Presentation layer

73 What is the extension of JavaScript file?
Question 74Answer

A. a.
.javaS
B. b.
.JS
C. c.
.java
D. d.
CSS

Ans. b. .JS

74 Why is perception still a challenge for AI—even though systems can recognize faces?
Question 75Answer

A. a.
Because perception is unrelated to reasoning
B. b.
Because AI lacks actuators

C. c.
Because perception requires common-sense knowledge and robust natural language understanding in open ended worlds
D. d.
Because sensors are too expensive

Ans. c. Because perception requires common-sense knowledge and robust natural language understanding in open ended worlds.

75 Which service used to translate domain names to ip address?
Question 76Answer
A. a.
HTTPS
B. b.
DHCP
C. c.
HTTP
D. d.
DNS

Ans. d. DNS

76 Which one of following monitors incoming and outgoing network traffic and decides whether to allow or block specific traffic based on a defined set of security rules?
Question 77Answer
A. a.
Intrusion detection system (IDS)
B. b.
Proxy server
C. c.
Virtual Private network
D. d.
Firewall

Ans. d. Firewall

77 Consider attributes ID, CITY and NAME. Which one of this can be considered as a super key?
Question 78Answer
A. a.
NAME
B. b.
ID
C. c.
CITY

D. d.
CITY, ID

Ans. d. CITY, ID

78 You want to ensure that a method calculateTax() in class Employee cannot be overridden by any subclass. What declaration achieves this?
Question 79Answer
A. a.
Abstract double calculateTax();
B. b.
Final double calculateTax(){…}
C. c.
Private double calculateTax(){…}
D. d.
Static double calculateTax(){…}

Ans. b. Final double calculateTax(){…}

79 Which one of the following identifier name is INVALID in C++ programming language?
A. a.
delete
B. b.
for_cpp
C. c.
jan2025
D. d.
Hello

Ans. a. delete

80 Which one of the following UML building block that defines the static part of the model and represents physical and conceptual elements?
Question 81Answer
A. a.
Structural things
B. b.
Behavioral things
C. c.
An notational things
D. d.
Grouping things

Ans. a. Structural things

81 Which scenario is best suited for UDP rather than TCP protocol?
Question 82Answer
A. a.
Live video streaming
B. b.
Email transmission
C. c.
Downloading the files
D. d.
Database update

Ans. a. Live video streaming

82 Which type of transparency in distributed database system distributes a relation into sub relations where each sub relation is defined by a subset of the columns of the original relation?
A. a.
Replication
B. b.
Location
C. c.
Horizontal
D. d.
Vertical

Ans. d. Vertical

83 In which of the following Learning methods an agent receives feedback in the form of rewards or penalties to maximize cumulative reward?
Question 84Answer
A. a.
Supervised learning
B. b.
Reinforcement learning
C. c.
Semi-supervised learning
D. d.
Unsupervised learning

Ans. b. Reinforcement learning

84 After deploying a new software system, users reports that the system slows during peak hour. Which software quality attribute primarily affected?
Question 85Answer
A. a.
Maintainability

B. b.
Performance
C. c.
Reliability
D. d.
Usability

Ans. b. Performance

85 Which one of the following is WRONGLY stated about an importance of security policy?
A. a.
To help minimize risk.
B. b.
To ensure the confidentiality, integrity and availability of data.
C. c.
To coordinate and enforce a security program across an organization.
D. d.
To use the system in a passive way

Ans. d. To use the system in a passive way.

86 Which of the following is NOT a task of the lexical analyzer?
A. a.
Generating parse trees
B. b.
Correlating errors with line numbers
C. c.
Entering identifiers into the symbol table
D. d.
Stripping whitespace and comments

Ans. a. Generating parse trees

87 Which sorting algorithm compares each pair of adjacent elements from the beginning of an array and, if they are in reversed order, swaps them; if at least one swaps has been done, repeat step 1.
Question 88Answer
A. a.
Insertion sort
B. b.
Bubble sort
C. c.
Selection sort
D. d.
Shell sort

Ans. b. Bubble sort

88 Which one of the following computer security goal prevents the disclosure of sensitive information to unauthorized users or systems on computer networks?
Question 89Answer
A. a.
Confidentiality
B. b.
Integrity
C. c.
Cyberspace
D. d.
Availability

Ans. a. Confidentiality

89 Assume that you have IPv4 addresses in binary notation 11000001 10000011 00011011 11111111 and you are requested to change into dotted decimal notation. What is the equivalent IP address in decimal dotted notation?
Question 90Answer
A. a.
192.174.27.255
B. b.
192.134.67.254
C. c.
193.130.28.254
D. d.
193.131.27.255

Ans. d. 193.131.27.255

90 ou have given that Grammar G1 −({S, A, B}, {a, b}, S, {S → AB, A → a, B → b}). Which one is terminal symbol in the give?
Question 91Answer
A. a.
a,b
B. b.
S
C. c.
S → AB, A → a, B → b
D. d.
S,A,B

Ans. a. a, b

91 Among the following one is NOT the application of queue in the real world.

A. a.
It is used in operating systems for handling interrupts.
B. b.
It is used to maintain the play list in media players in order
C. c.
It is used in Depth First search
D. d.
It is widely used as waiting lists for a single shared resource

Ans. c. It is used in Depth First search.

92 Which one of the following is disadvantage of circuit switching?
Question 93Answer
A. a.
Predictable performance
B. b.
Low latency
C. c.
Guaranteed bandwidth
D. d.
Limited scalability

Ans. d. Limited scalability

93 A developer stores user login status in both

$_SESSION['user_id'] on the server

document.cookie = "logged_in=1" on the client

An attacker tampers with cookies to set logged_in=1 without authenticating. Which statement is the most accurate?

A. a.
The system is vulnerable — cookie-only checks bypass server session validation
B. b.
The system is secure — session data cannot be forged without the server-side secret
C. c.
The system is vulnerable only if session_id is exposed
D. d.
The system is secure if HTTPS is used,

Ans. a. The system is vulnerable — cookie-only checks bypass server session validation.

94 The language L = {ww^R | w ∈ {a, b}*} (even-length palindromes) is:
Question 95Answer

A. a.
Regular
B. b.
Non-deterministic CFL but not deterministic
C. c.
Deterministic CFL
D. d.
Context-sensitive but not context-free

Ans. b. Non-deterministic CFL but not deterministic

95 _____is one of the candidate keys chosen by the database designer to uniquely identify the entity set.
Question 96Answer
A. a.
Super key
B. b.
Candidate key
C. c.
Social security key
D. d.
Primary key

Ans. d. Primary key

96 Which of the following statement about function overloading is TRUE?
A. a.
Overload function have same name but different parameters/type
B. b.
Overload function is not supported
C. c.
Overload function must have different return type
D. d.
Overload function must have the same number of parameters

Ans. a. Overload function have same name but different parameters/type.

97 How does an operating system improve efficiency in a multi-user environment?
Question 98Answer
A. a.
By allowing only one user to access the system at a time
B. b.
By disabling all background services
C. c.
By using time-sharing and process scheduling to allocate CPU time fairly among users and processes

D. d.
By requiring manual intervention for each task

Ans. c. By using time-sharing and process scheduling to allocate CPU time fairly among users and processes.

98 Which one of the following is not feature of dynamic web page?
Question 99Answer
A. a.
Contents can be generated on-the-fly
B. b.
Changing content or lively
C. c.
Contain the same prebuilt content each time the page is loaded
D. d.
Ability to connect to a database

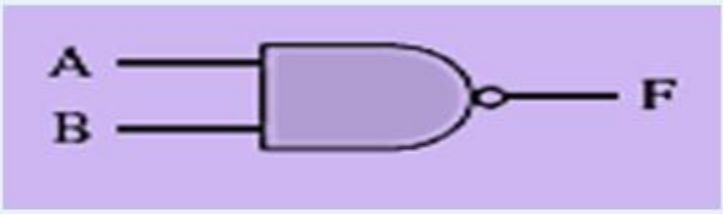
Ans. c. Contain the same prebuilt content each time the page is loaded.

99 Why should form <input> elements include an associated <label> with the for attribute?
A. a.
It enables offline form storage
B. b.
It encrypts user data
C. c.
It increases form submission speed
D. d.
It improves accessibility: screen readers announce the label when the input is focused

Ans. d. It improves accessibility: screen readers announce the label when the input is focused.

Question number 100

What is the name of logic gate based on the following graphical symbol?



a. XOR

b. NOR

c. NAND

d. AND

Answer: C