

4. What is the primary purpose of a Content Delivery Network (CDN)?
 - A. To host website content
 - B. To improve website performance and user experience
 - C. To secure website data
 - D. To design website layouts

5. How does a CDN improve website performance and user experience?
 - A. By encrypting website data
 - B. By compressing website images
 - C. By reducing latency and speeding up content delivery
 - D. By providing website analytics

6. What is the bit count of an IPv4 address?
 - A. 16 bits
 - B. 32 bits
 - C. 64 bits
 - D. 128 bits

7. What is the purpose of subnet masks in IP networking?
 - A. To encrypt IP addresses
 - B. To specify the network portion of an IP address
 - C. To block unauthorized access to IP addresses
 - D. To determine the physical location of IP addresses

8. What type of cable is commonly used in Ethernet networks for connecting devices?
 - A. Coaxial cable
 - B. Fiber-optic cable
 - C. Twisted-pair cable
 - D. HDMI cable

9. Which of the following browser components is used to display requested contents?
 - A. Search engine
 - B. Browser engine
 - C. Rendering engine
 - D. UI backend

10. Which type of error can an interpreter detect immediately during execution?
- A. Syntax errors
 - B. Semantic errors
 - C. Logic errors
 - D. Compilation errors
11. Which of the following programming languages is typically compiled rather than interpreted?
- A. Python
 - B. Java
 - C. JavaScript
 - D. Ruby
12. Which phase of the compiler translates high-level code into intermediate code or machine code?
- A. Parsing
 - B. Semantic Analysis
 - C. Code Generation
 - D. Lexical Analysis
13. Which of the following features is typically found in modern text editors?
- A. Graphical user interface (GUI)
 - B. Built-in compiler
 - C. Syntax highlighting
 - D. Interpreter for multiple programming languages
14. Which of the following file formats is commonly associated with executable files on Windows systems?
- A. .exe
 - B. .zip
 - C. .txt
 - D. .py
15. Which phase of the software development life cycle involves writing and modifying source code?
- A. Planning
 - B. Design
 - C. Implementation
 - D. Testing
16. What is the use of the renice command in linux?
- A. To rename files and directories
 - B. To change the priority of a running process
 - C. To change the ownership of a file or directory
 - D. To resize a partition on a disk

17. What does the command 'chmod +x script.sh' do in shell scripting?
- A. Adds execute permission to script.sh for all users
 - B. Removes execute permission from script.sh for all users
 - C. Changes the ownership of script.sh to the current user
 - D. Renames script.sh to script.exe
18. In Linux/Unix, what is the purpose of the "awk" command?
- A. It is used for text processing and pattern scanning
 - B. It is used for creating and managing symbolic links
 - C. It is used for compressing files
 - D. It is used for network configuration
19. What is the purpose of the shebang (!) in a shell script?
- A. It comments out a line in the script
 - B. It indicates the location of the shell interpreter
 - C. It defines a variable
 - D. It specifies the script's permissions
20. How can you get the number of command-line arguments passed to a shell script?
- A. \$*
 - B. \$#
 - C. \$@
 - D. \$0
21. What is the purpose of the 'sed' command in Unix-like operating systems?
- A. It is used for text substitution and manipulation
 - B. It is used for secure file deletion
 - C. It is used for disk formatting
 - D. It is used for file archiving
22. Which networking device operates at the Physical Layer of the OSI model?
- A. Router
 - B. Hub
 - C. Switch
 - D. Bridge

23. Which organization oversees the assignment of IP addresses and domain names on the Internet?
- A. IEEE
 - B. IETF
 - C. ICANN
 - D. ISO
24. Which command is used to display the size of files and directories in Unix-like operating systems?
- A. Size
 - B. ls -s
 - C. du
 - D. ls -l
25. What is the purpose of the robots.txt file on a website?
- A. To specify the layout and design of the website
 - B. To prevent search engines from indexing certain pages of the website
 - C. To authenticate users accessing the website
 - D. To specify the MIME type of files served by the website
26. Which networking device operates at the Network Layer of the OSI model?
- A. Router
 - B. Switch
 - C. Hub
 - D. Repeater
27. Which protocol is used for sending and receiving email messages over a network?
- A. HTTP
 - B. FTP
 - C. SMTP
 - D. SSH
28. Which networking device is used to divide a network into smaller, logical segments to reduce collision domains?
- A. Router
 - B. Hub
 - C. Switch
 - D. Bridge
29. What is the purpose of Quality of Service (QoS) in networking?
- A. To secure network communications
 - B. To manage network traffic and prioritize certain types of data
 - C. To interconnect multiple networks
 - D. To assign IP addresses dynamically to network devices

30. What is the purpose of a DHCP server in a computer network?
- To assign IP addresses dynamically to network devices
 - To filter network traffic based on predefined rules
 - To manage domain names and translate them to IP addresses
 - To provide secure remote access to a private network
31. Which among the following is not a type of database?
- Hierarchical
 - Network
 - Distributed
 - Decentralized
32. Evaluate the following expressions and give the result, consider $a = 44$ and $b = 25$
- $$2*38+20*(42-18/3)/5+7$$
- 227
 - 228
 - 226
 - 225
33. Which among the following is a procedural language?
- Domain relational calculus
 - Tuple relational calculus
 - Relational algebra
 - Query language
34. Which of the following SQL query will return an error?
- select empid from emp where empid = 10006;
 - select empid from emp;
 - select empid where empid = 1009 and Lastname = 'GELLER';
 - select * from emp where empid = 10003;
35. The copies of the same data (or information) occupying the memory space at multiple places is referred as
- Data Repository
 - Data Inconsistency
 - Data Mining
 - Data Redundancy
36. From the following statements identify the statement which is false regarding ensemble learning
- It is a supervised learning algorithm
 - It is an unsupervised learning algorithm
 - More random algorithms can be used to produce a stronger ensemble
 - Ensembles can be shown to have more flexibility in the functions they can represent

41. What is the formula for Bayes' theorem? Where (A and B) and (C and D) are events and $P(B)$, $P(C)$ and $P(D) \neq 0$.
- $P(C|D) = [P(C|D) * P(D)]/P(C)$
 - $P(A|B) = [P(A|B) * P(A)]/P(B)$
 - $P(C|D) = [P(C|D) * P(C)]/P(D)$
 - $P(A|B) = [P(B|A) * P(A)]/P(B)$
42. Which of the following is a parametric machine learning algorithm?
- CNN (Convolutional neural network)
 - KNN (K-Nearest Neighbours)
 - Naïve Bayes
 - SVM (Support vector machines)
43. Which are the general problems that may occur when using back propagation rule?
- Local minima problem
 - Slow convergence
 - Scaling
 - All of the mentioned
44. `#include <stdio.h>`
`int main()`
`{`
`if (printf("WELCOME TO GEETANJALI COLLEGE OF ENGINEERING"))`
`printf("\nWE ARE WORKING UNDER IF BLOCK");`
`else`
`printf("\nWE ARE WORKING UNDER ELSE BLOCK");`
`return 0;`
`}`
- Welcome to geetanjali college of engineering, We are working under if block
 - Welcome to geetanjali college of engineering, we are working under else block
 - We are working under else block
 - We are working under if block

45. Which of the following statements is not true about dual formulation in SVM optimisation problem?
- A. No need to access data, need to access only dot products
 - B. Number of free parameters is bounded by the number of support vectors
 - C. Number of free parameters is bounded by the number of variables
 - D. Regularizing the sparse support vector associated with the dual hypothesis is sometimes more intuitive than regularizing the vector of regression coefficients
46. Which among the following algorithm requires lesser memory?
- A. Optimal search
 - B. Depth First Search
 - C. Breadth First Search
 - D. Linear Search
47. The no:of available ways to solve a problem of state-space-search.
- A. 1
 - B. 2
 - C. 3
 - D. 4
48. Agent does exploration when
- A. Agent contains the knowledge of State and actions
 - B. Agent does not contain the knowledge of State and actions
 - C. Only actions are known to the agent
 - D. None of the above
49. Automatic Reasoning tool is used in
- A. Personal Computers
 - B. Microcomputers
 - C. LISP Machines
 - D. All of the above
50. Which of the following statements is true about AdaBoost?
- A. It is particularly prone to overfitting on noisy datasets
 - B. Complexity of the weak learner is important in AdaBoost
 - C. It is generally more prone to overfitting
 - D. It improves classification accuracy

56. 20% of students are below 7 years of age in ABC school. The number of students above 7 years of age is $\frac{2}{3}$ of the number of students of 7 years of age which is 48. What is the total number of students in the school?
- A. 120
B. 130
C. 100
D. 80
57. An error 4% in excess is made while measuring the side of a square. The percentage of error in the calculated area of the square is:
- A. 7.14
B. 15.21
C. 8.16
D. 9.23
58. In the ratio of 1 : 1:2, coffee worth Rs. 136 per kg and Rs. 145 per kg are combined with a third variety. The cost of the third variety per kg if the mixture costs Rs. 163/kg is:
- A. 185.5
B. 189.5
C. 187.5
D. 188.5
59. If 6 men and 8 boys can complete a task in 10 days, and 26 men and 48 boys can finish it in 2 days, what would be the duration taken by 15 men and 20 boys to accomplish a similar task?
- A. 4 days
B. 5 days
C. 6 days
D. 7 days
60. If the combined area of the floor and ceiling of a hall, measuring 15 meters in length and 12 meters in breadth, equals the sum of the areas of its four walls, what is the volume of the hall?
- A. 900
B. 1200
C. 1800
D. 720
61. In how many different ways can the letters of the word 'BOILER' be arranged in such a way that the vowels occupy only the odd positions?
- A. 32
B. 48
C. 36
D. 60

78. The question given below consists of a statement, followed by two arguments numbered I and II. You have to decide which of the arguments is a 'strong' argument and which is a 'weak' argument.

Statement : Is it advisable for India to promote exports despite facing shortages in meeting domestic demands for most products?

Assumptions :

- I. Yes. We need to generate foreign exchange in order to cover the costs of our imports.
- II. No. Even providing encouragement selectively would result in shortages.

- A. Only argument I is strong
- B. Only argument II is strong
- C. Either I or II is strong
- D. Neither I nor II is strong

79. In the question given below a statement followed by two assumptions numbered I and II. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.

Statement : "You are appointed as a programmer with a probationary period of one year, during which your performance will be evaluated for confirmation at the end of the period."

Assumptions :

- I. At the time an appointment offer is made, it's typically uncertain what an individual's performance will be.
- II. Typically, individuals endeavour to demonstrate their value during the probationary period.

- A. Only assumption I is implicit
- B. Only assumption II is implicit
- C. Either I or II is implicit
- D. Both I and II are implicit

80. Renu ranks fourteen from the top and forty five from the bottom in a class. How many students are there in the class?

- A. 59
- B. 54
- C. 56
- D. 58

93. Consider the following statements:

S1 : $P \geq Q$;

S2 : $R > V$;

S3 : $P \geq W$;

S4 : $Q \geq R$;

S5 : $T = Q$

Which of the following conclusions is/are true?

Conclusions:

C1 : $R > W$

C2 : $W > Q$

C3 : $T > V$

C4 : $P > V$

A. Only C3

B. C2 and C3

C. C3 and C4

D. C1, C3 and C4

94. A, B, C, D, E, F, G and H are sitting around a circle facing at the centre. E is second to the left of F and third to the right of A. B is third to the right of G who is not an immediate neighbour of either E or F. C is second to the right of B. D is to the immediate left of A and third to the left of H. Who is the fifth to the right of C?

A. H

B. G

C. B

D. E

95. Identify the next two numbers in the series given below:

9 11 33 13 15 33 17

A. 19 33

B. 33 35

C. 33 19

D. 15 33

96. In the following series which number should fill in the blanks

F2, ———, D8, C16, B32

A. A16

B. G4

C. E4

D. E3

97. The following statement contains a related pair of words, followed by five pairs of words. Select the pair that most closely resembles a similar relationship to the one conveyed in the original pair of words.

FINCH: BIRD

- A. Frog : toad
B. Elephant : reptile
C. Dalmatian : dog
D. Collie : marsupial
98. Find the word that names a necessary part of the underlined word.
antique
- A. Rarity
B. Artifact
C. Aged
D. Prehistoric
99. Choose the statement that is best supported by the information given in the question passage.

Yoga has gained immense popularity as a form of physical activity, yet it may not cater to everyone's preferences. Prior to enrolling in a yoga class, it's crucial to assess your fitness goals. If you seek a vigorous, dynamic aerobic workout, a yoga class might not align with your needs.

This paragraph best supports the statement that

- A. Yoga is more popular than high-impact aerobics
B. Before embarking on a new exercise regimen, you should think about your needs and desires
C. Yoga is changing the world of fitness in major ways
D. Yoga benefits your body and mind
E. Most people think that yoga isn't a rigorous form of exercise
100. Which set of letters when sequentially placed at the gaps in the given letter series gives a pattern of length 4?

st_s_t_s_tts

- A. ssts
B. tsst
C. tsts
D. stst

ANSWER SHEET

1	A	B	C	D	E	26	A	B	C	D	E	51	A	B	C	D	E	76	A	B	C	D	E
2	A	B	C	D	E	27	A	B	C	D	E	52	A	B	C	D	E	77	A	B	C	D	E
3	A	B	C	D	E	28	A	B	C	D	E	53	A	B	C	D	E	78	A	B	C	D	E
4	A	B	C	D	E	29	A	B	C	D	E	54	A	B	C	D	E	79	A	B	C	D	E
5	A	B	C	D	E	30	A	B	C	D	E	55	A	B	C	D	E	80	A	B	C	D	E
6	A	B	C	D	E	31	A	B	C	D	E	56	A	B	C	D	E	81	A	B	C	D	E
7	A	B	C	D	E	32	A	B	C	D	E	57	A	B	C	D	E	82	A	B	C	D	E
8	A	B	C	D	E	33	A	B	C	D	E	58	A	B	C	D	E	83	A	B	C	D	E
9	A	B	C	D	E	34	A	B	C	D	E	59	A	B	C	D	E	84	A	B	C	D	E
10	A	B	C	D	E	35	A	B	C	D	E	60	A	B	C	D	E	85	A	B	C	D	E
11	A	B	C	D	E	36	A	B	C	D	E	61	A	B	C	D	E	86	A	B	C	D	E
12	A	B	C	D	E	37	A	B	C	D	E	62	A	B	C	D	E	87	A	B	C	D	E
13	A	B	C	D	E	38	A	B	C	D	E	63	A	B	C	D	E	88	A	B	C	D	E
14	A	B	C	D	E	39	A	B	C	D	E	64	A	B	C	D	E	89	A	B	C	D	E
15	A	B	C	D	E	40	A	B	C	D	E	65	A	B	C	D	E	90	A	B	C	D	E
16	A	B	C	D	E	41	A	B	C	D	E	66	A	B	C	D	E	91	A	B	C	D	E
17	A	B	C	D	E	42	A	B	C	D	E	67	A	B	C	D	E	92	A	B	C	D	E
18	A	B	C	D	E	43	A	B	C	D	E	68	A	B	C	D	E	93	A	B	C	D	E
19	A	B	C	D	E	44	A	B	C	D	E	69	A	B	C	D	E	94	A	B	C	D	E
20	A	B	C	D	E	45	A	B	C	D	E	70	A	B	C	D	E	95	A	B	C	D	E
21	A	B	C	D	E	46	A	B	C	D	E	71	A	B	C	D	E	96	A	B	C	D	E
22	A	B	C	D	E	47	A	B	C	D	E	72	A	B	C	D	E	97	A	B	C	D	E
23	A	B	C	D	E	48	A	B	C	D	E	73	A	B	C	D	E	98	A	B	C	D	E
24	A	B	C	D	E	49	A	B	C	D	E	74	A	B	C	D	E	99	A	B	C	D	E
25	A	B	C	D	E	50	A	B	C	D	E	75	A	B	C	D	E	100	A	B	C	D	E

ROUGH WORK

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