

Itemcode : **LP1001**

Q1: In comparison to binary search, linear search is highly inefficient when dealing with:

- | | |
|----------|-------------------------|
| A | Small, sorted arrays. |
| B | Small, unsorted arrays. |
| C | Large, sorted arrays. |
| D | Large, unsorted arrays. |

Correct Ans: **C**

Itemcode : **LP1002**

Q2: How many minimum comparisons are required to search a sorted vector of 1023 elements using the binary search algorithm?

- | | |
|----------|------|
| A | 10 |
| B | 12 |
| C | 62 |
| D | 1023 |

Correct Ans: **A**

Itemcode : **LP1003**

Q3: What kind of linked list begins with a pointer to the first node, and each node contains a pointer to the next node, and the pointer in the last node points back to the first node?

- | | |
|----------|-------------------------------|
| A | Singly-linked list. |
| B | Doubly-linked list. |
| C | Circular, singly-linked list. |
| D | Circular, doubly-linked list. |

Correct Ans: **C**

Itemcode : **LP1004**

Q4: Given that k is an integer array starting at location 2500, kPtr is a pointer to k and each integer is stored in 4 bytes of memory, what location does kPtr + 3 point to?

- | | |
|----------|------|
| A | 2503 |
| B | 2506 |
| C | 2512 |
| D | 2524 |

Correct Ans: **C**

Itemcode : **LP1005**

Q5: Which file open mode would be used to write data only to the end of an existing file?

- | | |
|----------|---------|
| A | ios::in |
|----------|---------|

B	ios::out
C	ios::app
D	ios::trunc
Correct Ans: C	

Itemcode : LP1006	
Q6: How many times is the comparison $i \leq n$ performed in the following program?	
<pre> int i = 10, n = 1000; main() { while (i <= n){ i = i+1; n = n-1; } } </pre>	
A	494
B	495
C	496
D	990
Correct Ans: C	

Itemcode : LP1007	
Q7: Suppose we want to sort an array in descending order and we implement quicksort so that we always choose the last element in the array as the pivot element. Assume that the input is a permutation of $\{1, 2, \dots, n\}$. Which of the following would be a worst case permutation of this input for this implementation of quicksort?	
A	$\{1, 2, \dots, n\}$ with all even numbers in random order followed by all odd numbers in descending order.
B	$\{1, 2, \dots, n\}$ in descending order.
C	$\{1, 2, \dots, n\}$ in some random order.
D	$\{1, 2, \dots, n\}$ with all odd numbers in ascending order followed by all even numbers in random order.
Correct Ans: B	

Itemcode : LP1008	
Q8: An undirected graph G has 100 nodes and there is a path from every vertex to every other vertex in G. Suppose v_1 and v_2 are two vertices in G. Then, what can we say about the shortest path from v_1 to v_2 ?	
A	The path has at most 1 edge.
B	The path has at most 2 edges.
C	The path has at most 50 edges.
D	The path has at most 99 edges.
Correct Ans: D	

Itemcode : LP1009	
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Q9: Anjali has enrolled for a part-time Masters programme where she has to complete 8 courses, numbered 1, 2, . . . , 8. Each course takes a full semester to complete. She can take as many or as few courses as she wants in each semester.

Some courses are prerequisites for other courses. If course A is a prerequisite for course B, she can take course B the semester after she finishes course A, or any time after that, but not before. Given the following information about prerequisites, compute the minimum number of semesters she needs to complete these courses.

Prerequisites for course 1: course 2,4,5,7

Prerequisites for course 2: course 3

Prerequisites for course 3: course 5,6

Prerequisites for course 4: course 8

Prerequisites for course 5: course 8

Prerequisites for course 6: course 7,8

A	3
B	4
C	5
D	6

Correct Ans: **C**

Itemcode : **LP1010**

Q10: Consider the following fragment of code for a graph algorithm on an undirected graph.
for each vertex i in V

mark i as visited

for each edge (j,i) pointing into i

update $\text{weight}(j,i)$ to $\text{weight}(j,i) + k$

Which of the following is the most accurate description of the complexity of this fragment. (Recall that n is the number of vertices, m is the number of edges.)

A	$O(n)$
B	$O(nm)$
C	$O(n+m)$
D	$O(m)$

Correct Ans: **B**

Itemcode : **LP1011**

Q11: Suppose we do merge sort with a three-way split: divide the array into 3 equal parts, sort each part and do a 3 way merge. What would the worst-case complexity of this version be?

A	$O(n^2)$
B	$O(n^2 \log_3 n)$
C	$O(n \log_2 n)$

D	$O(n \log 3n)$
Correct Ans: D	

<u>Itemcode</u> : LP1012	
Q12: What is the complexity of in order traversal for a binary search tree with n nodes?	
A	$O(\log n)$ whether the tree is balanced or unbalanced.
B	$O(\log n)$ if the tree is balanced, $O(n)$ otherwise.
C	$O(n)$ whether the tree is balanced or unbalanced.
D	$O(n)$ if the tree is balanced, $O(n \log n)$ otherwise.
Correct Ans: C	

<u>Itemcode</u> : LP1013	
Q13: Which of the following is not a greedy algorithm?	
A	Dijkstra's algorithm for single source shortest paths
B	Bellman-Ford algorithm for single source shortest paths
C	Prim's algorithm for minimum cost spanning tree
D	Kruskal's algorithm for minimum cost spanning tree
Correct Ans: B	

<u>Itemcode</u> : LP1014	
Q14: Suppose a new generation CPU can process 10^{10} operations per second. You have to sort an array with 10^8 elements. Which of the following is true?	
A	Insertion sort could take several hours while merge sort will always take less than 1 second.
B	Insertion sort will always take several hours while quicksort will always take less than 1 second.
C	Insertion sort will always take several hours while merge sort will always take less than 1 second.
D	Insertion sort could take several hours while quicksort will always take less than 1 second.
Correct Ans: A	

<u>Itemcode</u> : LP1015	
Q15: What is the value of the postfix expression ?	
$a \ b \ c \ d \ + \ - \ *$ (where $a = 7$, $b = 4$, $c = 2$ and $d = 5$)	
A	243
B	-243
C	21
D	-21
Correct Ans: D	

<u>Itemcode</u> : LP1016	
Q16: If $T(n)$ is $O(n^2 \log n)$ then which of the following is false?	
A	

	T(n) is $O(n^2)$
B	T(n) is $O(n^2 \sqrt{n})$
C	T(n) is $O(n^3)$
D	T(n) is $O(n^3 \sqrt{n})$
Correct Ans: A	

<u>Itemcode</u> : LP1017	
Q17: City authorities are concerned about traffic accidents on major roads. They would like to have ambulances stationed at road intersections to quickly reach the scene of any accident along these roads. To minimize response time, ambulances are to be located at intersections with traffic lights so that any segment of road can be reached by at least one ambulance that does not have to pass through a traffic light to reach the scene of the accident. If we model the road network as a graph, where intersections with traffic lights are vertices and edges represent road segments between traffic lights, the graph theoretic question to be answered is:	
A	Find a spanning tree with minimum cost.
B	Find a minimal colouring.
C	Find a minimum size vertex cover.
D	Find a minimum size independent set.
Correct Ans: C	

<u>Itemcode</u> : LP1018	
Q18: Suppose SAT reduces to a problem A. To claim that A is NP-complete, we additionally need to show that:	
A	There is a checking algorithm for A.
B	Every instance of A maps to an instance of SAT
C	Every instance of SAT maps to an instance of A.
D	A does not have an efficient algorithm.
Correct Ans: A	

<u>Itemcode</u> : LP1019	
Q19: Suppose we run Prim's algorithm and Kruskal's algorithm on a graph G and the two algorithms produce minimum-cost spanning trees T_1 and T_2 . Which of the following is true?	
A	T_1 must be identical to T_2 .
B	If T_1 is different from T_2 , some pair of edges in G have the same weight.
C	If e is a minimum cost edge in G, e belongs to both T_1 and T_2 .
D	If e is a maximum cost edge in G, e belongs to neither T_1 nor T_2
Correct Ans: B	

<u>Itemcode</u> : LP1020	
Q20: Suppose we run the Bellman-Ford algorithm on a weighted graph with n vertices and observe that some distances decrease in iteration n+1. Which of the following is not a valid conclusion.	
A	The graph has negative edge weights
B	The graph has a negative cycle.

C	If we iterate further, distances will continue to decrease.
D	Some shortest path entry in iteration n+1 must be negative.
Correct Ans: D	

<u>Itemcode</u> : LP1021	
Q21: Let f be the function from R to R with $f(x) = 1/(1+x^2)$. Then f is	
A	one-to-one
B	invertible
C	not invertible
D	bijective
Correct Ans: C	

<u>Itemcode</u> : LP1022	
Q22: How many ways are there to assign 5 different jobs to 4 different employees if every employee is assigned at least 1 job?	
A	20
B	240
C	625
D	1024
Correct Ans: B	

<u>Itemcode</u> : LP1023	
Q23: If G is a simple graph with 36 edges and \bar{G} has 30 edges, how many vertices does G have?	
A	10
B	11
C	12
D	24
Correct Ans: C	

<u>Itemcode</u> : LP1024	
Q24: If the product of two integers is $2^7 3^8 5^2 7^{11}$ and their greatest common divisor is $2^3 3^4 5$, what is the least common multiple?	
A	$2^4 3^4 5^1 7^{11}$
B	$2^7 3^8 5^2 7^{11}$
C	$2^{11} 3^{12} 5^3 7^{11}$
D	$2^{21} 3^{32} 5^2 7^{11}$
Correct Ans: A	

<u>Itemcode</u> : LP1025	
Q25:	

In how many ways can we write 20 as a sum of 3 non-negative integer?

A 153

B 231

C 816

D 1540

Correct Ans: **B**

Itemcode : **LP1026**

Q26: In a farewell party, 8 friends wanted to give gifts to each other. Each person brings one gift and receives one in return. No one receives the gift that he / she brought. In how many they can distribute these 8 gifts?

A 256

B 265

C 1854

D 14,833

Correct Ans: **D**

Itemcode : **LP1027**

Q27: A Software development team has 13 members comprising of 6 women and 7 men. How many groups of 7 members can be chosen that contains 3 women and 4 men?

A 55

B 110

C 600

D 700

Correct Ans: **D**

Itemcode : **LP1028**

Q28: If p is a statement, then which of the following is a Tautology ?

A $p \wedge F$

B $p \vee F$

C $p \vee \neg p$

D $p \wedge T$

Correct Ans: **C**

Itemcode : **LP1029**

Q29: How many integers from 100 to 999 must be picked in order to be sure that atleast 2 of them have a digit in common?

A 2

B 3

C 10

D 11

Correct Ans: **C**

Itemcode : **LP1030**

Q30: Every simple, connected graph has _____ number of odd degree vertices.

- | | |
|----------|------------|
| A | Even |
| B | Zero |
| C | Odd |
| D | Cannot say |

Correct Ans: **A**

Itemcode : **LP1031**

Q31: Pick entities from the following:

- (i) vendor
- (ii) student
- (iii) attends
- (iv) km/hour

- | | |
|----------|---------------------------|
| A | (i), (ii) and (iii) only |
| B | (i), (ii) and (iv) only |
| C | (i) and (ii) only |
| D | (iii) and (iv) only |

Correct Ans: **C**

Itemcode : **LP1032**

Q32: The attributes of relationship teaches in teacher teaches course should be

- | | |
|----------|---|
| A | teacher code, teacher name, dept, phone no |
| B | course no, course name, semester offered, credits |
| C | teacher code, course no, semester no |
| D | teacher code, course no, teacher name, dept, phone no |

Correct Ans: **C**

Itemcode : **LP1033**

Q33: A student can take not more than 5 subjects in a semester. The number of students allowed in a subject in a semester is not more than 40. The student- subject relationship is:

- | | |
|----------|------|
| A | 5:40 |
| B | 40:5 |
| C | N:5 |
| D | 40:M |

Correct Ans: **B**

Itemcode : **LP1034**

Q34: Normalization of database is essential to

- (i) avoid accidental deletion of required data when some data is deleted
- (ii) eliminate inconsistencies when a data item is modified in the database
- (iii) allows storage of data in a computer's disk
- (iv) use a database management system

A (i) and (iii) only

B (i) and (ii) only

C (ii) and (iii) only

D (ii) and (iv) only

Correct Ans: **B**

Itemcode : **LP1035**

Q35: Given the following relation:

vendor order (vendor no, order no, vendor name, qty supplied, price/unit)

It is not in 2 NF because

A it is not in 1 NF

B it has a composite key

C non-key attribute vendor name is dependent on vendor no. which is one part of the composite key

D Qty supplied and price/unit are dependent

Correct Ans: **C**

Itemcode : **LP1036**

Q36: A relation is said to be in BCNF when

A it has overlapping composite keys

B it has no composite keys

C it has no multivalued dependencies

D it has no overlapping composite keys which have related attributes

Correct Ans: **D**

Itemcode : **LP1037**

Q37: Data integrity in a file-based system may be lost because

A the same variable may have different values in different files

B files are duplicated

C unnecessary data is stored in files

D redundant data is stored in files

Correct Ans: **A**

Itemcode : LP1038

Q38: Which of the following is not a super key in a relational schema with attributes V, W, X, Y, Z and primary key VY?

A VWXY

B VXYZ

C VWXZ

D VWXYZ

Correct Ans: C

Itemcode : LP1039

Q39: Let the set of functional dependencies:

$$F = \{ BC \rightarrow D, C \rightarrow A, D \rightarrow B \}$$

hold on a relation schema $X = \langle ABCD \rangle$. X is not in BCNF. Suppose X is decomposed into two schemas Y and Z, where $Y = \langle AC \rangle$ and $Z = \langle BCD \rangle$.

Consider the two statements given below.

- I. Decomposition of X into Y and Z is dependency preserving and lossless
- II. Both Y and Z are in BCNF

Which of the above statements is/are correct?

A I only

B II only

C Neither I nor II

D Both I and II

Correct Ans: A

Itemcode : LP1040

Q40: Which of the following is not an IPC?

A Named FIFO

B Remote Procedure Call

C Queue

D Pipe

Correct Ans: C

Itemcode : LP1041

Q41: What is User Agents in SMTP

A It sends and receives the message

B It transfers the mail across the internet

C It prepares the message, encloses it in an envelope

D It acts as a Mail Box

Correct Ans: C

Itemcode : **LP1042**

Q42: Which of the followings is true about Multipurpose Internet Mail Extensions (MIME)?

- | | |
|----------|---|
| A | It is used to transform non-ASCII data to Image data on NVT (Network Virtual Terminal) |
| B | It is used to transform non-ASCII data to NVT (Network Virtual Terminal) Gray code data |
| C | It is used to transform non-ASCII data to NVT (Network Virtual Terminal) ASCII data |
| D | It is used to transform non-ASCII data to video data on NVT (Network Virtual Terminal) |

Correct Ans: **C**

Itemcode : **LP1043**

Q43: Which of the followings are important tasks of TCP at the transport layer?

- (i) Per hop packet delivery
- (ii) Congestion control
- (iii) Ordered packet delivery

- | | |
|----------|---------------------|
| A | (i) only |
| B | (ii) and (iii) only |
| C | (i) and (iii) only |
| D | (i), (ii) and (iii) |

Correct Ans: **B**

Itemcode : **LP1044**

Q44: If a go-back-N ARQ uses 7 bit sequence number space, then the maximum sender window size will be _____ .

- | | |
|----------|-----|
| A | 63 |
| B | 64 |
| C | 127 |
| D | 128 |

Correct Ans: **C**

Itemcode : **LP1045**

Q45: If maximum network layer payload size is 1480 bytes, what is the maximum TCP payload size?

- | | |
|----------|------|
| A | 1440 |
| B | 1456 |
| C | 1460 |
| D | 1500 |

Correct Ans: **C**

Itemcode : **LP1046**

Q46: How does a TCP receiver handle out of order data?

A	It simply discards the out of order data.
B	It discards the out of order data but sends a duplicate ACK.
C	It stores the out of order data if there is space in receiver window, and sends a duplicate ACK.
D	It stores the data in the receiver buffer and but does not send any ACK.
Correct Ans: C	

<u>Itemcode</u> : LP1047	
Q47: Which of the following is true for network layer routing over the Internet?	
A	Internet routing is co-ordinated by a central system.
B	Every router determines the route independently.
C	Routing reduces congestion in the network by diverting packets to a non-congested path.
D	Routing guarantees that every packet from a single transport layer connection will go through the same path.
Correct Ans: B	

<u>Itemcode</u> : LP1048	
Q48: Why do we need the open flow protocol?	
A	To communicate between packet forwarding switches.
B	To communicate between a legacy switch and a packet forwarding switch.
C	To communicate between a legacy switch and a legacy router.
D	To communicate between a SDN controller and a packet forwarding switch.
Correct Ans: D	

<u>Itemcode</u> : LP1049	
Q49: What is jitter?	
A	Latency of network.
B	Variance of delay.
C	Variance of available bandwidth.
D	Length of the queue at different router.
Correct Ans: B	

<u>Itemcode</u> : LP1050	
Q50: TCP/IP based computer Network is a	
A	Packet-switched network
B	Circuit-switched network
C	Ram-switched network
D	Both Packet-switched network and Circuit-switched network
Correct Ans: A	

<u>Itemcode</u> : LP1051	
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Q51: How many headers and trailers are added by transport layer in TCP/IP protocol suit?

- A** 1 header and 2-3 trailers
- B** 1 header and no trailer
- C** 2-3 headers and no trailers
- D** 2-3 headers and one trailer

Correct Ans: **B**

Itemcode : **LP1052**

Q52: Internet packet data structure consists of

- (i) source address
- (ii) destination address
- (iii) serial number of packets
- (iv) message bytes
- (v) Control bits for error checking

- A** (i), (ii), and (iii) only
- B** (i), (ii), and (iv) only
- C** (i), (ii), (iii) and (iv) only
- D** (i), (ii), (iii), (iv) and (v)

Correct Ans: **D**

Itemcode : **LP1053**

Q53: SGML stands for

- A** Standard Generalized Markup Language
- B** Structured General Markup Language
- C** Standard Graphics Mapping Language
- D** Standard General Markup Link

Correct Ans: **A**

Itemcode : **LP1054**

Q54: Suppose that a fast wide SCSI-II disk drive spins at 7200 RPM, has a sector size of 512 bytes, and holds 160 sectors per track. The estimates sustained transfer rate of this drive in megabytes per second is _____.

- A** 4800 KB/s
- B** 6400 KB/s
- C** 8000 KB/s
- D** 9600 KB/s

Correct Ans: **D**

Itemcode : **LP1055**

Q55: For what types of operations is Direct Memory Access useful?

A	For large and fast data transfers between memory and I/O devices.
B	For large and slow data transfers between memory and I/O devices.
C	For slow and small data transfers between memory and I/O devices.
D	For small data transfers between memory and cache.
Correct Ans: A	

<u>Itemcode</u> : LP1056	
Q56: Which of the following is/are the disadvantage(s) of Pipes used for Inter process communication (IPC)?	
I. they operate in one dimension only	
II. they are useful when processes are schedulable and resident on same machine	
III. this is insecure mode of communication	
IV. pipes cannot support broadcast	
A	I, II and III only
B	I, II and IV only
C	II, III and IV only
D	I, II, III and IV
Correct Ans: D	

<u>Itemcode</u> : LP1057	
Q57: What replacement policy is used by Windows NT?	
A	LRU
B	NFU
C	FIFO
D	Clock Replacement
Correct Ans: C	

<u>Itemcode</u> : LP1058	
Q58: If the hit ratio to a TLB is 80%, and it takes 15 nanoseconds to search the TLB, and 150 nanoseconds to access the main memory, then what must be the effective memory access time in nanoseconds?	
A	175
B	185
C	195
D	205
Correct Ans: C	

<u>Itemcode</u> : LP1059	
Q59: In a 64-bit machine, with 256 MB RAM, and a 4KB page size, how many entries will there be in the page table if its inverted?	
A	2^{12}

B	2^{14}
C	2^{16}
D	2^{64}
Correct Ans: C	

Itemcode : **LP1060**

Q60: Consider a paging system with the page table stored in memory. If a memory reference takes 200 nanoseconds, how long does a paged memory reference take?

A	100 nanoseconds
B	200 nanoseconds
C	400 nanoseconds
D	600 nanoseconds
Correct Ans: C	

Itemcode : **LP1061**

Q61: If the waiting time for a process is p and there are n processes in the memory then the CPU utilization is given by

A	p/n
B	p^n
C	$1 - p^n$
D	$n - p^n$
Correct Ans: C	

Itemcode : **LP1062**

Q62: Assume you have the following jobs to execute with one processor, with the jobs arriving in the order listed here:

I	$T(p_i)$ sec
0	80
1	20
2	10
3	20
4	50

Suppose a system uses FCFS scheduling What is the average wait time for the processes?

A	36 sec
B	84 sec
C	120 sec
D	130 sec
Correct Ans: B	

Itemcode : **LP1063**

Q63: A CPU scheduling algorithm determines an order for the execution of its scheduled processes. Given n processes to be scheduled on one processor, how many possible different schedules are there? Give a formula in terms of

A	$n/2$
B	n
C	$n(n-1)$
D	$n!$
Correct Ans: D	

Itemcode : LP1064	
Q64: When a process is rolled out of memory, it loses its ability to use the CPU (at least for a while). Choose another situation where a process loses its ability to use the CPU, but where the process does not get rolled out from the following options.	
A	When an interrupt occurs.
B	When thrashing occurs.
C	When deadlock occurs.
D	While swapping.
Correct Ans: A	

Itemcode : LP1065	
Q65: Any string of terminals that can be generated by the following context free grammar (where S is start nonterminal symbol)	
$S \rightarrow XY$	
$X \rightarrow aX \mid bX \mid a$	
$Y \rightarrow Ya \mid Yb \mid a$	
A	has at least one b
B	should end with a
C	has no consecutive a's or b's
D	has at least two a's
Correct Ans: D	

Itemcode : LP1066	
Q66: Consider the following statements:	
S1: The family of context free languages is closed under homomorphism	
S2: The family of context free languages is closed under reversal	
Choose the correct option.	
A	Only S1 is correct
B	Only S2 is correct
C	Both S1 and S2 are correct
D	Neither S1 nor S2 are correct
Correct Ans: C	

Itemcode : **LP1067**

Q67: Which of the following languages on $\Sigma = \{a, b, c\}$ are not context free?

- I. $L = \{ w \mid n_a(w) \leq n_b(w) \leq n_c(w) \}$
- II. $L = \{ a^n b^m \mid n \leq m^2 \}$
- III. $L = \{ a^n b^k \mid n = m^2 \}$

A Only I

B Only III

C II and III only

D I, II and III

Correct Ans: **D**

Itemcode : **LP1068**

Q68: Let L be the set of all binary strings whose last two symbols are the same. The number of states in the minimum state deterministic finite automaton accepting the language L is

A 8

B 5

C 3

D 2

Correct Ans: **B**

Itemcode : **LP1069**

Q69: Every context-free grammar can be converted into an equivalent

A Chomsky Normal form

B Greibach Normal form

C Both Chomsky Normal form and Greibach Normal form

D Neither Chomsky Normal form or Greibach Normal form

Correct Ans: **C**

Itemcode : **LP1070**

Q70: The language represented by the grammar:

$S \rightarrow 00A, A \rightarrow 11S \mid 11$

is described by

A $(00+11)^*$

B $(0011)^*$

C $(00(11)^*)^*$

D $(0011)^+$

Correct Ans: **D**

Itemcode : **LP1071**

Q71: The result of addition of $(76)_8$ and $(26)_8$ is:

A $(124)_8$

B $(102)_8$

C $(104)_8$

D $(122)_8$

Correct Ans: **A**

Itemcode : **LP1072**

Q72: Determine the number of clock cycles it takes to process 200 tasks in a 5-segment pipeline.

A 200

B 205

C 204

D 206

Correct Ans: **C**

Itemcode : **LP1073**

Q73: A digital computer has a memory unit of $64K \times 16$ and a cache memory of $1K$. The cache uses a direct mapping with a block size of 4 words. How many bits are there in tag, index, and word fields of the address format?

A 6, 6, 4

B 6, 4, 6

C 8, 6, 2

D 6, 8, 2

Correct Ans: **D**

Itemcode : **LP1074**

Q74: An instruction is stored at location 500 with its address field at location 501. The address field has the value 320. What is the effective address if the addressing mode is relative addressing mode?

A 821

B 822

C 820

D 1002

Correct Ans: **B**

Itemcode : **LP1075**

Q75: Which of the following statements are true?

- I. Control memory is used in microprogrammed control unit.
- II. Array processors are based on MIMD organization.
- III. Shift right operation divides the number by 2.
- IV. Most of the available computers follow MISD organization.

A	I and III are true
B	I and IV are true
C	II and III are true
D	II and IV are true
Correct Ans: A	

Itemcode : LP1076	
Q76: Given below are two statements:	
S1: In RISC machines memory access is limited to load and store instructions.	
S2: CISC computers are capable of performing operation on memory operands directly.	
On the basis of above statements, choose the correct answer from the options given below.	
A	Both S1 and S2 are true
B	Both S1 and S2 are false
C	S1 is true but S2 is false
D	S1 is false but S2 is true
Correct Ans: A	

Itemcode : LP1077	
Q77: Given that $a_0 = 1$, $a_n = n + (-1)^n a_{n-1}$ for $n \geq 2$ What is the value of a_4 ?	
A	5
B	6
C	8
D	11
Correct Ans: A	

Itemcode : LP1078	
Q78: The _____ method provides a one-time session key for two parties.	
A	Diffie-Hellman
B	RSA
C	DES
D	AES
Correct Ans: A	

Itemcode : LP1079	
Q79: Ridge difficulty in hill climbing search is a special kind of	
A	Local minimum
B	Global minimum
C	Local maximum

D	Global maximum
Correct Ans: C	

<u>Itemcode</u> : LP1080	
Q80: A 2-input single output NN has weight values [1.2 -2.6] and a bias of 1.4. It is given input [3.4 2.2] ^T . What is output if identity function is used as transfer function ?	
A	11.2
B	8.4
C	0.24
D	-0.24
Correct Ans: D	

<u>Itemcode</u> : LP1081	
Q81: According to 2011 census what is the density of population in Kinnaur District of H.P.?	
A	09
B	13
C	18
D	21
Correct Ans: B	

<u>Itemcode</u> : LP1082	
Q82: In which district of H.P. the production of apple was highest during 2014-15?	
A	Chamba
B	Kullu
C	Shimla
D	Kinnaur
Correct Ans: C	

<u>Itemcode</u> : LP1083	
Q83: Which district of H.P. had the highest literacy rate (2011 census)?	
A	Una
B	Shimla
C	Hamirpur
D	Bilaspur
Correct Ans: C	

<u>Itemcode</u> : LP1084	
Q84: Which district of H.P. had the lowest Scheduled Tribe population (2011 census)?	
A	Una
B	

	Shimla
C	Hamirpur
D	Bilaspur
Correct Ans: C	

<u>Itemcode</u> : LP1085	
Q85: When was the first cabinet sworn-in in H.P.?	
A	December 1951
B	January 1952
C	February 1952
D	March 1952
Correct Ans: D	

<u>Itemcode</u> : LP1086	
Q86: Near which town of H.P. is Khokhan sanctuary?	
A	Bhunter
B	Arki
C	Bathree
D	Bhota
Correct Ans: A	

<u>Itemcode</u> : LP1087	
Q87: In which district of H.P. is Chamera lake?	
A	Kangra
B	Sirmour
C	Bilaspur
D	Chamba
Correct Ans: D	

<u>Itemcode</u> : LP1088	
Q88: Who was the first voter who voted in India in 1951?	
A	Shyam Singh
B	Shyam Bihari Negi
C	Shyam Chand Negi
D	Shyam Sharan Negi
Correct Ans: D	

<u>Itemcode</u> : LP1089	
Q89: On the confluence of which rivers is Tandi situated?	

A	Seer and Shukar
B	Gambhar and Gambhrola
C	Beas and Suketi
D	Chandra and Bhaga
Correct Ans: D	

<u>Itemcode</u> : LP1090	
Q90: Who was the first recipient of Param Vir Chakra in India?	
A	Lt. Gen. S.N. Sharma
B	General V.N. Sharma
C	Major Som Nath Sharma
D	None of these
Correct Ans: C	

<u>Itemcode</u> : LP1091	
Q91: Army War College is located in _____.	
A	Dehradun
B	Mhow
C	Delhi
D	Khadakwasla
Correct Ans: B	

<u>Itemcode</u> : LP1092	
Q92: When was Botanical survey of India established?	
A	1890
B	1905
C	1916
D	1921
Correct Ans: A	

<u>Itemcode</u> : LP1093	
Q93: Which one of the following does not have Zonal Branch of National Green Tribunal?	
A	Bhopal
B	Pune
C	Chennai
D	Mumbai
Correct Ans: D	

<u>Itemcode</u> : LP1094	
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Q94: Goods and Services Tax (GST) Council was constituted in India?

A 2014

B 2015

C 2016

D 2017

Correct Ans: **C**

Itemcode : **LP1095**

Q95: Border Security Force (BSF) was raised in India in _____.

A 1962

B 1965

C 1971

D 1984

Correct Ans: **B**

Itemcode : **LP1096**

Q96: What is the Capital of Mauritius?

A Port Louis

B Manaco

C Jakarta

D Rabat

Correct Ans: **A**

Itemcode : **LP1097**

Q97: Which is the coldest planet?

A Mercury

B Neptune

C Venus

D Jupiter

Correct Ans: **B**

Itemcode : **LP1098**

Q98: Which day is observed as World Literacy Day (UNESCO)?

A April 10

B May 25

C September 08

D October 05

Correct Ans: **C**

Itemcode : **LP1099**

Q99: From where is newspaper **People's Daily** published?

A Beijing

B Moscow

C London

D Havana

Correct Ans: **A**

Itemcode : **LP1100**

Q100: Malacca Strait is between _____.

A Java and India

B Andaman Sea and South China Sea

C Mannar and Bay of Bengal

D North Sea and English Channel

Correct Ans: **B**