

Notations :

- Options shown in **green** color and with ✓ icon are correct.
- Options shown in **red** color and with ✖ icon are incorrect.

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Ruler Required?:	No
Eraser Required?:	No
Scratch Pad Required?:	No
Rough Sketch/Notepad Required?:	No
Protractor Required?:	No
Show Watermark on Console?:	Yes
Highlighter:	No
Auto Save on Console?:	No

Question Shuffling Allowed : Yes

Question Number : 1 Question Id : 231098901 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3 Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

How many bits are used to store the significand in IEEE754 floating point format?

Options :

1. ✖ 20

2. ✖ 22

3. ✓ 23

Question Number : 2 Question Id : 231098902 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Find the simplified form of the 4-variable Boolean function.

$$F(M, N, O, P) = \sum m(0, 1, 2, 4, 5, 6, 8, 9, 10, 12, 13)$$

Options :

1. ✖ $O' + M'P'$

2. ✖ $N'P' + M'P'$

3. ✖ $O' + N'P'$

4. ✔ $O' + N'P' + M'P'$

Question Number : 3 Question Id : 231098903 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

For two binary numbers $X = 010010$ and $Y = 001101$ find out:

i) $X - Y$ and ii) $Y - X$

Perform this using 2's complement subtraction and express the result is 2's complement.

Options :

1. ✔ i) 000101 ii) 111011

2. ✖ i) 101000 ii) 010100

3. ✖ i) 101001 ii) 011111

4. ✖ i) 000111 ii) 111000

Correct Marks : 2 Wrong Marks : 0.66

A processor has got 16 registers, namely R0 to R15. The instruction format requires 4 bits to express different arithmetic and logic operations. For a three-address instruction, what would be the minimum width (expressed in number of bits) of an add instruction of the form ADD Rx, Ry, Rz.

Options :

1. ✓ 16

2. ✗ 17

3. ✗ 15

4. ✗ 18

Question Number : 5 Question Id : 231098905 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In a synchronous circuit, the present state is determined with the help of:

Options :

1. ✗ decoders

2. ✓ flip-flops

3. ✗ latches

4. ✗ multiplexers

Question Number : 6 Question Id : 231098906 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

A 5-bit string “b4 b3 b2 b1 b0” is considered to be in:

i) sign-magnitude; ii) 1’s complement and iii) 2’s complement form.

What would be the minimum and maximum possible values that can be expressed for the three forms, respectively, mentioned above?

Options :

1. ✖ i) -15, +15 ii) -7, +7 iii) -8, +8
2. ✖ i) -31, +31 ii) -32, +63 iii) -16, +15
3. ✖ i) -30, +30 ii) -32, +32 iii) -100, +100
4. ✔ i) -15, +15 ii) -15, +15 iii) -16, +15

Question Number : 7 Question Id : 231098907 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Express decimal 341 as a 9-bit binary bit string in gray code.

Options :

1. ✖ 0 1 0 1 0 1 0 1 0
2. ✔ 1 1 1 1 1 1 1 1 1
3. ✖ 1 0 1 0 1 0 1 0 1
4. ✖ 1 1 1 1 1 1 1 1 0

Question Number : 8 Question Id : 231098908 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

A translation look aside buffer (TLB), also known as ATC, is a small cache that is a part of memory management hardware that translates:

Options :

1. ✖ PNP to NPN
2. ✖ NPN to PNP

Question Number : 9 Question Id : 231098909 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

A 64-bit full adder is designed using half-adders, where each 1-bit full adder module has the same structure. If each half adder is formed using 2-input NAND gates only, then estimate the total number of 2-input NAND gates required for such a 64-bit full adder.

Options :

1. ✗ 1024

2. ✓ 960

3. ✗ 512

4. ✗ 256

Question Number : 10 Question Id : 231098910 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Suppose a 2-input XOR gate is to be formed using only 2-input NAND gates. What is the minimum number of NAND gates required to form the XOR gate?

Options :

1. ✗ 2

2. ✗ 6

3. ✓ 4

4. ✗ 5

Question Number : 11 Question Id : 231098911 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Assume that 5 TTL inverters are connected back-to-back to form a closed chain. What would be the signal characteristics at the output of any inverter?

Options :

1. ✓ Oscillating
2. ✗ Stuck at 0
3. ✗ Stuck at 1
4. ✗ Cannot be predicted

Question Number : 12 Question Id : 231098912 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

You are designing a microprocessor and restricted to have only four bits in the flag register. What are the flags that you should provide in this case considering the most frequently used flags that are needed in a general computing applications?

Options :

1. ✗ Sign, Carry, Parity, Overflow
2. ✗ Parity, Zero, Sign, Overflow
3. ✓ Sign, Zero, Overflow, Carry
4. ✗ Carry, Auxiliary Carry, Parity, Sign

Question Number : 13 Question Id : 231098913 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Consider a new number system N whose radix is 32 and the digits are 0,1, ..., 9, A, B, ..., U, V. Express the binary number 110 11100 11111 11010 10111 01010 10101 in this new number system N.

Options :

1. ✖ EAMQVS3

2. ✔ 6SVQNAL

3. ✖ 2UVS357

4. ✖ 12AFG62

Question Number : 14 Question Id : 231098914 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Find a proposition that is equivalent to $P \vee Q$ and uses only conjunction and negation.

Options :

1. ✖ $\sim(P \wedge \sim Q)$

2. ✖ $\sim(\sim P \wedge Q)$

3. ✖ $(\sim P \wedge \sim Q)$

4. ✔ $\sim(\sim P \wedge \sim Q)$

Question Number : 15 Question Id : 231098915 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

If $G = (V, E)$ is a connected planar graph with r regions. Also, $v = \#V$ and $e = \#E$, then

$$r + v - e = ?$$

Options :

1. ✔ 2

2. ✖ 1

3. ✖ 3

4. ✖ 4

Question Number : 16 Question Id : 231098916 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

What are the values of $3(4)$ and $36(4)$ respectively in the group Z_{11} ?

Options :

1. ✔ 1 and 1

2. ✖ 3 and 1

3. ✖ 1 and 3

4. ✖ 2 and 1

Question Number : 17 Question Id : 231098917 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

If $\{P_1, P_2, \dots, P_n\}$ is a partition of A , find the number of minsets generated by $P_1, P_2, \dots, P_n$

Options :

1. ✖ n^n 2. ✔ 2^n 3. ✖ $n^n - 1$ 4. ✖ n^{n+1}

Question Number : 18 Question Id : 231098918 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

What are common relations on $\mathbb{Z}$ are the transitive closures of the relation

xRy if and only if $|x - y| = 2$

Options :

1. ✓ xR^+y if and only if $a - b$ is even

2. ✗ xRy if and only if $a - b$ is not even

3. ✗ xRy if and only if $a - b$ is even

4. ✗ xR^+y if and only if $a - b$ is odd

Question Number : 19 Question Id : 231098919 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

How many different reflexive and symmetric relations are there on a set with 3 elements?

Options :

1. ✗ 6

2. ✗ 9

3. ✗ 0

4. ✓ 8

Question Number : 20 Question Id : 231098920 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Consider five vertices A, B, C, D and E in a Graph G with undirected edges connecting A and B, B and C, C and D; and D and A. What is the chromatic number of the graph G?

Options :

1. ✗ 1

2. ✖ 3

3. ✔ 3

4. ✖ 4

Question Number : 21 Question Id : 231098921 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following groups are cyclic?

Options :

1. ✖ $[\mathbb{Q}, +]$ 2. ✖ $[\mathbb{R}^+, *]$ 3. ✖ $\mathbb{Z} \times \mathbb{Z}$ 4. ✔ $\mathbb{Z}_2 \times \mathbb{Z}_3 \times \mathbb{Z}_{25}$

Question Number : 22 Question Id : 231098922 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

For the Ring $[\mathbb{Z}_8; +_8, \times_8]$ find out the option that is NOT a divisor of zero.

Options :

1. ✔ 3

2. ✖ 2

3. ✖ 4

Question Number : 23 Question Id : 231098923 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Determine the value of x from the given field satisfying the given equation:

$$3x + 1 = 2 \text{ over } Z_5$$

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 3

4. ✖ 4

Question Number : 24 Question Id : 231098924 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Algebraic expressions can be conveniently represented using the expression trees. There is a connection between the traversal (post-order, pre-order etc.) and the expression type (postfix, prefix etc.).

Select the correct option in terms of truthfulness of the two statements given below:

- i) The pre-order traversal of an expression tree results in the prefix form of the expression.
- ii) The post-order traversal of an expression tree results in the postfix form of the expression.

Options :

1. ✖ i) FALSE ii) FALSE

2. ✔ i) TRUE ii) TRUE

3. ✖ i) TRUE ii) FALSE

4. ✖ i) FALSE ii) TRUE

Correct Marks : 2 Wrong Marks : 0.66

Which one of the following is a true statement?

Options :

1. ✖ An alphabet is an infinite and non-empty set of symbols
2. ✖ An alphabet is an infinite and empty or non-empty set of symbols
3. ✖ An alphabet is an finite and empty or non-empty set of symbols
4. ✔ An alphabet is a finite and non-empty set of symbols

Question Number : 26 Question Id : 231098926 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

For Pushdown automata (PDA), which one of the following statements is true?

Options :

1. ✔ PDA includes start state and initial stack symbols
2. ✖ PDA includes start state but no initial stack symbols
3. ✖ PDA includes neither a transition matrix nor initial stack symbols
4. ✖ PDA includes neither a transition matrix nor input symbols

Question Number : 27 Question Id : 231098927 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Following Noam Chomsky's classification, Type 1 grammar is also known as:

Options :

1. ✔ Context-sensitive grammar

3. ✖ Context-assured grammar

4. ✖ Regular grammar

Question Number : 28 Question Id : 231098928 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Context-free grammar is a subset of:

Options :

1. ✖ context-generated grammar

2. ✔ context-sensitive grammar

3. ✖ regular grammar

4. ✖ irregular grammar

Question Number : 29 Question Id : 231098929 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

For finite automata, which one of the following is correct?

Options :

1. ✔ It requires no stack

2. ✖ It requires one input stack and no output stacks

3. ✖ It requires no input stack and one output stack

Question Number : 30 Question Id : 231098930 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

For a deterministic finite automata (DFA), which one among the following options is true?

Options :

1. ✖ DFA includes both transition matrix and finite set of states

2. ✖ DFA includes both transition matrix and a start state

3. ✔ DFA includes both an alphabet and a start state

4. ✖ DFA includes both transition matrix and an alphabet

Question Number : 31 Question Id : 231098931 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The context-sensitive language is recognised and accepted by a:

Options :

1. ✖ Finite-state automata

2. ✖ semi-finite-state automata

3. ✔ Linear bounded automata

4. ✖ push-down automata

Question Number : 32 Question Id : 231098932 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Following Noam Chomsky's classification, Type 2 grammar generates:

Options :

1. ✖ regular language
2. ✖ context-sensitive language
3. ✔ contest-free language
4. ✖ recursive enumerable language

Question Number : 33 Question Id : 231098933 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Unrestricted grammar generates recursively enumerable language and is recognised by:

Options :

1. ✖ push up automata
2. ✖ push down automata
3. ✔ Turing machine
4. ✖ finite state automata

Question Number : 34 Question Id : 231098934 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Consider a string 011 over the binary alphabet $\{0, 1\}$.

Then which of the following statements is correct?

Options :

1. ✔ The count of different sub-strings is greater than the count of different suffixes
2. ✖ The count of different sub-strings is less than the count of different prefixes

4. ✖ The count of different prefixes is greater than the count of different suffixes

Question Number : 35 Question Id : 231098935 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

One of the main limitations of a finite state machine (FSM) can be written as:

Options :

1. ✔ FSM doesn't remember state transitions

2. ✖ FSM requires input or condition to perform state transitions

3. ✖ FSM doesn't have transitions

4. ✖ FSM can be in exactly one of a finite number of states at any given time

Question Number : 36 Question Id : 231098936 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Consider a string 001 over the binary alphabet {0, 1}.

Then which of the following statements is correct (consider e is empty)?

Options :

Prefixes: e, 0, 00, 001

1. ✔ Suffixes: e, 1, 01, 001

Prefixes: e, 0, 00

2. ✖ Suffixes: e, 1, 01

Prefixes: e, 1, 01

3. ✖ Suffixes: e, 0, 00

4. ✖ Suffixes: 0, 00

Question Number : 37 Question Id : 231098937 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Following Noam Chomsky's classification, type 3 grammar is:

Options :

1. ✔ the most restricted form of grammar
2. ✖ the most lenient form of grammar
3. ✖ the more lenient form of grammar than the Turing machine
4. ✖ the more lenient form of grammar than the context-free grammar

Question Number : 38 Question Id : 231098938 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The recursive enumerable language is generated by a grammar that must have a/an:

Options :

1. ✖ single terminal in the left-hand side and a single non-terminal in the right-hand side
2. ✖ single non-terminal in the right-hand side
3. ✖ single terminal in the left-hand side
4. ✔ single non-terminal in the left-hand side

Question Number : 39 Question Id : 231098939 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

For the key value 123456789 and the partition size 3, the shift folding hash function $h(k)$ returns:

1. ✖ 1512

2. ✔ 1368

3. ✖ 1720

4. ✖ 1296

Question Number : 40 Question Id : 231098940 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which one of the following options is a top-down parser?

Options :

1. ✔ LL(1)

2. ✖ LR(0)

3. ✖ LALR(1)

4. ✖ SLR(1)

Question Number : 41 Question Id : 231098941 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Identify which one is the correct statement from the following.

Options :

1. ✖ YACC is an LL parser generator for the DOS operating system

2. ✖ YACC is an LL parser generator for the Unix operating system

4. ✔ YACC is an LALR parser generator for the Unix operating system

Question Number : 42 Question Id : 231098942 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

An input to a the lexical analyser is:

Options :

1. ✖ token stream

2. ✖ error messages for token generator

3. ✔ source language

4. ✖ token with error messages

Question Number : 43 Question Id : 231098943 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In a compiler pass, which one of the following is true?

Options :

1. ✖ Syntactic analysis executes before lexical analysis

2. ✔ Lexical Analysis executes before Syntactic Analysis

3. ✖ Semantic analysis executes before syntactic analysis

4. ✖ Semantic analysis executes before lexical analysis

Question Number : 44 Question Id : 231098944 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which one of the following options has right associativity?

Options :

1. ✓ Exponentiation

2. ✗ Addition

3. ✗ Division

4. ✗ Subtraction

Question Number : 45 Question Id : 231098945 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Assume that in a language, the value of x in an expression

$x = 8 * 4 + 3$ is calculated.

Select the correct statement among the following.

Options :

1. ✓ Value of x will be 35 if * has higher precedence than +

2. ✗ Value of x will be 44 if + has higher precedence than *

3. ✗ Value of x will be 56 if * has higher precedence than +

4. ✗ Value of x will be 96 if * has higher precedence than +

Question Number : 46 Question Id : 231098946 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The rules in regular expression are built up using which of the following operators?

Options :

1. ✓ concatenation, alteration and repetition

3. ✖ concatenation, subtraction and negation

4. ✖ addition, subtraction and negation

Question Number : 47 Question Id : 231098947 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Select the correct statement from the following.

Options :

1. ✔ YACC is a bottom-up parser and creates an LALR parsing table

2. ✖ YACC is a top-down parser and creates an LL parsing table

3. ✖ YACC is a top-down parser and creates an LALR parsing table

4. ✖ YACC is a bottom-up parser and creates an LL parsing table

Question Number : 48 Question Id : 231098948 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which one of the following is NOT a top-down parser?

Options :

1. ✔ Operator precedence parser

2. ✖ Recursive descent parser

3. ✖ Predictive parser

Question Number : 49 Question Id : 231098949 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Consider the code given below

```
i = 2;
while (i < 20){
    x = i * 5;
    i +=2;
}
```

An optimising compiler changes the code as follows:

```
i = 2;
t = 10;
while (t < 100){
    x = t;
    t += 10;
}
```

Find out the optimisation technique used in this case.

Options :

1. ✖ Code motion
2. ✖ Dead code elimination
3. ✖ Variable propagation
4. ✔ Induction variable and strength reduction

Question Number : 50 Question Id : 231098950 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

A character stream of a source language is:

Sum=5*6

Which one of the below is correct?

Options :

1. ✖ Sum, 5 and 6 are identifier tokens
2. ✖ 5 and 6 are identifier tokens and = is assignment operator
3. ✔ Sum is an identifier token whereas 5 and 6 are integer literals
4. ✖ * is an assignment operator whereas 5 and 6 all are identifier tokens

Question Number : 51 Question Id : 231098951 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which one of the following is a correct statement?

Options :

1. ✖ LR(0) is not a shift/reduce parser but LR(1) is shift/reduce parser
2. ✖ Both LR(0) and LR(1) are shift/reduce parsers and do not result in reduce/reduce conflicts
3. ✖ LR(0) is a shift/reduce parser but LR(1) is not a shift/reduce parser
4. ✔

Both LR(0) and LR(1) are shift/reduce parsers and can result both shift/reduce conflicts or reduce/reduce conflicts

Question Number : 52 Question Id : 231098952 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

For a derivation

$A \Rightarrow Ab$

the grammar is left-recursive if which of the following conditions is correct and meaningful?

Options :

1. ✖ A is a terminal and b is some string

3. ✗ A and b both are strings of terminals and non-terminals

4. ✗ A is a terminal and b is a non-terminal

Question Number : 53 Question Id : 231098953 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

If x and y are integers with the initial values of 5 and 6 respectively, then what are the final values of x in two separate cases given by:

(i) $x = y++$; and (ii) $x = ++y$;

Options :

1. ✗ 5, 6

2. ✓ 6, 7

3. ✗ 7, 5

4. ✗ 6, 4

Question Number : 54 Question Id : 231098954 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

A computer running windows OS encodes characters in ASCII. What would it produce (ASCII code in hex) at the end of each line in a text file?

Options :

1. ✗ 41, 42

2. ✓ OD, OA

3. ✗ 5B, 3F

Question Number : 55 Question Id : 231098955 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

```
#include <stdio.h>

int main()
{
    int x = 15, *y, z=10;
    y = &x; printf("%d", x * *y * z + *y); return (0);
}
```

What is the output of the given program?

Options :

1. ✖ 1250

2. ✖ 2055

3. ✔ 2265

4. ✖ 5225

Question Number : 56 Question Id : 231098956 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

For a class MyType, which of the following is true in C++ for the following code snippet:

```
MyType objA = objB;
```

Options :

1. ✔ The Copy constructor of class MyType will be invoked

2. ✖

The Default constructor of class MyType will be invoked first and then the assignment operator

4. ✖ Valid only if user-defined Copy constructor of class MyType is provided

Question Number : 57 Question Id : 231098957 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

When a base class is privately inherited by a derived class, the public members of the base class can only be accessed by the _____ of the derived class.

Options :

1. ✖ non-member functions

2. ✔ friend functions

3. ✖ member functions

4. ✖ class members

Question Number : 58 Question Id : 231098958 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

When the base class is publicly inherited, the public members of the base class become _____ of the derived class.

Options :

1. ✔ not inherited

2. ✖ private members

3. ✖ protected members

4. ✖ public members

Question Number : 59 Question Id : 231098959 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

```
#include <stdio.h>

int main()
{
    float x = -0.0;
    unsigned char *ss;
    int i; ss = (unsigned char *) &x;
    for (i=0; i < sizeof(float); i++)
        printf(" %.2x", ss[i]);
    printf("\n");
    return 1;
}
```

What is the output of the given C program in a little endian machine?

Options :

1. ✓ 00 00 00 80

2. ✗ 80 00 00 00

3. ✗ 00 00 00 08

4. ✗ 08 00 00 00

Question Number : 60 Question Id : 231098960 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In java, consider A is the super class for class B. A has a method f(int) with default access specifier and B has a method f(double) with default access specifier. Consider the following code snippet:

```
int a=5;
double d=1.5;
A obj=new B();
obj.f(a);
```

Again, obj.f(a) is replaced by obj.f(d)

Two invocations of f() will give rise to the following:

Options :

1. ✗ Will call f(int) of A in both the cases

2. ✖ Will call f(int) of A and f(double) of B respectively
3. ✖ Will call f(double) of B in both the cases
4. ✔ Will call f(int) of A and generate error respectively

Question Number : 61 Question Id : 231098961 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

For a context-free grammar, which one of the following statements is correct?

Options :

1. ✖ Context-free grammar doesn't require a start symbol.
2. ✖
A non-terminal is left-recursive if the symbol in the right-hand side is same that of the leftmost symbol in one of its productions or can be formed by any sequence of substitution.
3. ✖
A non-terminal is right-recursive if the symbol in the left-hand side is same as that of the right-most symbol in one of its productions or can be formed by any sequence of substitution.
4. ✔
A non-terminal is left-recursive if the symbol in the left-hand side is same as that of the leftmost symbol in one of its productions or can be formed by any sequence of substitution.

Question Number : 62 Question Id : 231098962 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Consider, mypackage is a user-defined package in Java. A and B are two classes in that package. Further, assume that C is another class in the package that extends A. Consider the following statements:

- i) Among the members of A, only the public members are accessible in Class B
- ii) Except the private and default members, all other members of A are accessible in C

Select the most appropriate option.

Options :

1. ✖ Both the statements i and ii are true

2. ✓ Both the statements i and ii are false

3. ✗ Only i is true

4. ✗ Only ii is true

Question Number : 63 Question Id : 231098963 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Consider the following C function:

```
int mult(int a, int b)
{
    int x = a * b;
    return !a || x/a == b;
}
```

Select the correct option describing the use of the function.

Options :

1. ✗ It serves no purpose

2. ✓ It checks for overflow

3. ✗ It detects 'divide by 0' error

4. ✗ It checks for underflow

Question Number : 64 Question Id : 231098964 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

What can be accomplished with the following C function?

```
short test(unsigned short n )
```

```
{  
    short v = 1;  
    while (n){  
        v ^= n; n >>= 1;  
    }  
    return v & 1;  
}
```

Options :

1. ✖ Finding the Checksum
2. ✖ Finding the Gray value of the parameter n
3. ✔ Finding the parity; odd or even
4. ✖ No meaningful use

Question Number : 65 Question Id : 231098965 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which data structure best describes:

“A number of bangles worn by a person”

Options :

1. ✔ STACK
2. ✖ QUEUE
3. ✖ TREE
4. ✖ ARRAY

Correct Marks : 2 Wrong Marks : 0.66

Which notation is NOT used to describe the complexity of an algorithm?

Options :

1. ✖ Theta (Θ)
2. ✖ Big O (O)
3. ✖ Omega (Ω)
4. ✔ Phi ($\emptyset$)

Question Number : 67 Question Id : 231098967 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Match the columns for popular searching/sorting techniques and the complexities.

SL. No.	Name	SL. No.	Complexity
i)	Linear Search	a)	$O(n \log n)$
ii)	Binary Search	b)	$O(n^2)$
iii)	Bubble Sort	c)	$O(n)$
iv)	Merge Sort	d)	$O(\log n)$

Options :

1. ✖ i) b; ii) c; iii) d; iv) a
2. ✖ i) c; ii) b; iii) d; iv) a
3. ✔ i) c; ii) d; iii) b; iv) a
4. ✖ i) c; ii) d; iii) a; iv) b

Question Number : 68 Question Id : 231098968 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following algorithms does not utilise the 'divide and conquer' strategy?

Options :

1. ✖ Quick sort
2. ✖ Binary search
3. ✔ Map colouring
4. ✖ Merge sort

Question Number : 69 Question Id : 231098969 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The time complexity of Warshall's algorithm is given by:

Options :

1. ✖ $O(n^1)$
2. ✔ $O(n^3)$
3. ✖ $O(n^2)$
4. ✖ $O(n^4)$

Question Number : 70 Question Id : 231098970 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The total number of spanning trees in a complete graph with 'n' vertices is given by:

Options :

1. ✖ n^{n-1}
2. ✖ n^{n+2}

3. ✓ n^2 4. ✗ n^{n+1}

Question Number : 71 Question Id : 231098971 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The time complexity of Kruskal's minimum spanning tree algorithm is:

Options :

1. ✓ $O(E \log E)$ 2. ✗ $O(\log E)$ 3. ✗ $O(V^2)$ 4. ✗ $O(V^E)$

Question Number : 72 Question Id : 231098972 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

An AVL tree checks the height of the left and the right sub-trees and ensures that the difference is not more than:

Options :

1. ✗ 0

2. ✓ 1

3. ✗ 2

4. ✗ 3

Question Number : 73 Question Id : 231098973 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

www.prepp.in Which of the following options is THE rotation used in an AVL search tree?

Options :

1. ✖ UL

2. ✖ BR

3. ✔ RL

4. ✖ UR

Question Number : 74 Question Id : 231098974 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Indicate the correct option to find out the minimum number of moves to solve the problem of the Tower of Hanoi.

Options :

1. ✖ 2^n

2. ✔ $2^n - 1$

3. ✖ $2^n + 1$

4. ✖ $2^{n-1} - 1$

Question Number : 75 Question Id : 231098975 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

A 4-byte data (0X123456AB) is stored in memory with the starting location X.

The following options show the possible addresses of the MS and LS bytes in;

i) Little endian and ii) big endian forms. Select the correct option.

Options :

1. ✖ i) $X = 12, X+3 = AB$; ii) $X = 12, X + 3 = AB$

3. ✗ i) $X = 12, X+3 = AB$; ii) $X = AB, X+3 = 12$

4. ✗ i) $X = AB, X+3 = 12$; ii) $X = AB, X+3 = 12$

Question Number : 76 Question Id : 231098976 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is NOT true about a data model?

Options :

1. ✗ It is an abstraction of a real-world object

2. ✗ Simplifies structure

3. ✗ Represents data structures, relations

4. ✓ It is a non-iterative process

Question Number : 77 Question Id : 231098977 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which is the first data model developed during 1960s-1970s?

Options :

1. ✓ File system

2. ✗ Relational

3. ✗ Object oriented

Question Number : 78 Question Id : 231098978 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The conceptual organisation of the entire database, as viewed by the database administrator, relates to:

Options :

1. ✓ schema

2. ✗ sub-schema

3. ✗ DML

4. ✗ DDL

Question Number : 79 Question Id : 231098979 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following options is an example of a composite attribute?

Options :

1. ✓ Address

2. ✗ Age

3. ✗ First name

4. ✗ DOB

Question Number : 80 Question Id : 231098980 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

A minimal (irreducible) super key in a relational database is:

Options :

1. ✓ Candidate key
2. ✗ Primary key
3. ✗ Secondary key
4. ✗ Foreign key

Question Number : 81 Question Id : 231098981 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following options describes an abstract or conceptual design of the database?

Options :

1. ✗ Modular design
2. ✗ Physical design
3. ✓ Logical design
4. ✗ Mapped design

Question Number : 82 Question Id : 231098982 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following statements correctly describes materialised views in DBMS?

Options :

1. ✗ They are not physically stored on the disk
2. ✓ They are a physical copy, picture or a snapshot of a base table

4. ✖ They don't help in improving application performance

Question Number : 83 Question Id : 231098983 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which among the following options is the owner of DUAL table in SQL?

Options :

1. ✖ USER

2. ✔ SYS

3. ✖ ALL

4. ✖ DBA

Question Number : 84 Question Id : 231098984 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In SQL, assume a table named "Customers" with columns "Code", "Name" and "Country". Select the correct SQL query that fetches all customers' names in an upper case.

Options :

1. ✖ SELECT Toupper(Name) FROM Customers;

2. ✔ SELECT upper(Name) FROM Customers;

3. ✖ SELECT upperTo(Name) FROM Customers;

4. ✖ SELECT upper.CustomerName FROM Customers;

Question Number : 85 Question Id : 231098985 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

What would be the correct term denoting the following statement: "Changes to the databases must be persistent after transaction is committed"

Options :

1. ✗ Consistency

2. ✗ Isolation

3. ✗ Atomicity

4. ✓ Durability

Question Number : 86 Question Id : 231098986 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Consider processes P1, P2 and P3 with burst times 10, 20 and 30 respectively. What will be their average waiting time according to FCFS (arrival time is 0 for all)?

Options :

1. ✓ 13.34

2. ✗ 12.34

3. ✗ 10.3

4. ✗ 30

Question Number : 87 Question Id : 231098987 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The term IPC is a short form for:

Options :

1. ✗ Inter Program Connection

3. ✗ Inter Parent Code

4. ✗ Inter Parent Communication

Question Number : 88 Question Id : 231098988 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

As the process enters the system, it is placed in which type of the queue?

Options :

1. ✗ Block queue

2. ✗ Ready queue

3. ✓ Job queue

4. ✗ Waiting queue

Question Number : 89 Question Id : 231098989 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

A pair of base and limit registers in memory defines:

Options :

1. ✓ logical address space

2. ✗ network address space

3. ✗ physical address space

Question Number : 90 Question Id : 231098990 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is NOT a valid state of the process?

Options :

1. ✖ Blocked

2. ✖ Running

3. ✔ Privileged

4. ✖ Ready

Question Number : 91 Question Id : 231098991 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

A thread is described as a/an:

Options :

1. ✖ system call

2. ✖ duplicated process

3. ✖ heavyweight process

4. ✔ lightweight process

Question Number : 92 Question Id : 231098992 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following operating systems has fork () and exec () system calls?

Options :

1. ✓ Unix

2. ✗ Windows

3. ✗ Mac-OS

4. ✗ Solaris

Question Number : 93 Question Id : 231098993 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following statements is not true about threads?

Options :

1. ✗ Each thread has a program counter

2. ✗ Each thread has a separate stack space

3. ✗ Only one thread is active at a time

4. ✓ Threads are independent

Question Number : 94 Question Id : 231098994 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In the resource allocation graph, the edge from a process to a resource ($P_i \rightarrow R_j$) is:

Options :

1. ✓ request edge

2. ✗ resource edge

3. ✖ assignment edge

4. ✖ grant edge

Question Number : 95 Question Id : 231098995 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Banker's algorithm is a type of:

Options :

1. ✖ deadlock detection

2. ✔ deadlock avoidance

3. ✖ deadlock removal

4. ✖ deadlock protection

Question Number : 96 Question Id : 231098996 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which techniques of the following are used for IPC implementation?

Options :

1. ✔ message passing, shared memory

2. ✖ shared memory, paging

3. ✖ message passing, semaphores

4. ✖ paging, segmentation

Question Number : 97 Question Id : 231098997 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

www.prepp.in The prepp.in for processes P1, P2 and P3 is 50, 3 and 1 respectively. When they are scheduled as per FCFS algorithm, what will be the problem during process execution?

Options :

1. ✓ Convoy effect
2. ✗ Aging
3. ✗ Synchronization
4. ✗ Sharing

Question Number : 98 Question Id : 231098998 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3 Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Consider reference string: 7,0,1,2,0,3,0,4,2,3,0,3,0,3,2,1,2,0,1,7,0,1 and Page Size= 3

According to the FIFO Page Replacement algorithm, how many page faults will occur?

Options :

1. ✗ 20
2. ✗ 12
3. ✗ 18
4. ✓ 15

Question Number : 99 Question Id : 231098999 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3 Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The term STBR stands for:

Options :

1. ✗ Semaphore-table base register

3. ✗ Synchronized-table base record

4. ✗ Segment-table base record

Question Number : 100 Question Id : 2310981000 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is a file manipulation system call in windows operating system?

Options :

1. ✓ CloseHandle ()

2. ✗ close()

3. ✗ write()

4. ✗ open()

Question Number : 101 Question Id : 2310981001 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following RAID levels has striping but no redundancy of data?

Options :

1. ✓ RAID 0

2. ✗ RAID 3

3. ✗ RAID 10

Question Number : 102 Question Id : 2310981002 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is a solution to external fragmentation problem?

Options :

1. ✔ Compaction

2. ✖ Aging

3. ✖ Paging

4. ✖ Mirroring

Question Number : 103 Question Id : 2310981003 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The length of an IPv6 address is:

Options :

1. ✖ 16 bits

2. ✖ 32 bits

3. ✖ 64 bits

4. ✔ 128 bits

Question Number : 104 Question Id : 2310981004 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The term UPnP protocol is a short form for:

Options :

1. ✖ Uniform Plug and Play

2. ✖ Unit Plug and Play

3. ✖ Useful Plug and Play

4. ✔ Universal Plug and Play

Question Number : 105 Question Id : 2310981005 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which protocol is used to associate a logical address with a physical address?

Options :

1. ✖ IGMP

2. ✖ ICMP

3. ✖ RARP

4. ✔ ARP

Question Number : 106 Question Id : 2310981006 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The unit of period frequency, one terahertz, is equivalent to:

Options :

1. ✔ 10^{12} Hz

2. ✖ 10^9 Hz

3. ✖ 10^6 Hz

4. ✖ 10^3 Hz

Question Number : 107 Question Id : 2310981007 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The term OSPF is a short form for:

Options :

1. ✖ Optimal Shortest Path First

2. ✔ Open Shortest Path First

3. ✖ Open Short Packet First

4. ✖ Optimum Start Path First

Question Number : 108 Question Id : 2310981008 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is NOT true about circuit-switched networks?

Options :

1. ✖ Circuit switching takes place at the physical layer

2. ✖ Data transferred between the two stations are not packetised

3. ✖ There is no addressing involved during data transfer

4. ✔ The resources are not required to be reserved during the setup phase

Question Number : 109 Question Id : 2310981009 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

www.prepp.in has arrived with an M bit value of 0. Which of the following statements is true?

Options :

1. ✖ This is the first fragment
2. ✔ This is the last fragment
3. ✖ This is the middle fragment
4. ✖ This is a fragmented packet

Question Number : 110 Question Id : 2310981010 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In IPv4 and IPv6, which of the following hop limit (time to live) value pair is correct?

Options :

1. ✔ 8 bits, 8 bits
2. ✖ 12 bits, 8 bits
3. ✖ 8 bits, 12 bits
4. ✖ 6 bits, 8 bits

Question Number : 111 Question Id : 2310981011 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Match the following:

Protocol	Default type of service
P. SNMP	1. Normal
Q. TELNET	2. Maximise throughput
R. FTP (data)	3. Minimise delay
S. BOOTP	4. Maximise reliability

Options :

1. ✖ P-4,Q-2,R-3,S-1

2. ✔ P-4,Q-3,R-2,S-1

3. ✖ P-2,Q-4,R-3,S-1

4. ✖ P-3,Q-4,R-2,S-1

Question Number : 112 Question Id : 2310981012 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following options correctly defines the components of WWW?

Options :

1. ✔ URL, HTTP and HTML

2. ✖ HTTP and HTML only

3. ✖ URL, TCP/IP and HTML

4. ✖ URL and TCP/IP only

Question Number : 113 Question Id : 2310981013 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In computer graphics, which of the following options is not true about bitmap graphics?

Options :

1. ✖ pixel based graphics

2. ✖ Image size is determined on the basis of image resolution

3. ✓ Images can be scaled easily

4. ✗ Position and color information about the image are stored in pixels arranged in grid pattern

Question Number : 114 Question Id : 2310981014 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is the correct full form of the term DDA?

Options :

1. ✗ Digital Display Analyzer

2. ✓ Digital Differential Analyzer

3. ✗ Display Digital Analyzer

4. ✗ Display Differential Analyzer

Question Number : 115 Question Id : 2310981015 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is NOT a valid type of transformation in computer graphics?

Options :

1. ✗ Scaling

2. ✗ Rotation

3. ✗ Shearing

4. ✓ Clustering

Question Number : 116 Question Id : 2310981016 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The information that changes the shape of an object is known as:

Options :

1. ✓ Shearing
2. ✗ Reflection
3. ✗ Scanning
4. ✗ Rotating

Question Number : 117 Question Id : 2310981017 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In computer graphics, deleting of any parts of an image that falls outside of a window is known as:

Options :

1. ✗ inking
2. ✓ scissoring
3. ✗ scaling
4. ✗ shearing

Question Number : 118 Question Id : 2310981018 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In clipping, which of the following are valid line types?

Options :

1. ✓ visible, invisible and clipped
2. ✗ visible, invisible and cropped

4. ✖ visible and clipped

Question Number : 119 Question Id : 2310981019 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is an interpolation technique in 3D computer graphics?

Options :

1. ✖ Ray tracing

2. ✔ Phong shading

3. ✖ Vector shading

4. ✖ Gouraud shading

Question Number : 120 Question Id : 2310981020 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which C graphic function is used to draw a 2-dimensional, rectangular filled in bar?

Options :

1. ✔ bar3d()

2. ✖ drawbar3d()

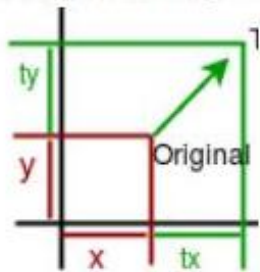
3. ✖ bar2d()

4. ✖ drawbar2d()

Question Number : 121 Question Id : 2310981021 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The preppind diagram is an example of:



Options :

1. ✓ translation

2. ✗ rotation

3. ✗ scaling

4. ✗ reflection

Question Number : 122 Question Id : 2310981022 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In computer graphics, the aspect ratio is given by:

Options :

1. ✓ $AR = \text{width unit/height unit}$

2. ✗ $AR = AR/\text{width unit}*\text{height unit}$

3. ✗ $AR = \text{width unit} + \text{height unit}/\text{width}*height$

4. ✗ $AR = \text{width unit} + \text{height unit}$

Question Number : 123 Question Id : 2310981023 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The component of CRT that is used to turn the electron beam ON and OFF is:

Options :

1. ✓ control electrode
2. ✗ electron gun
3. ✗ deflection yoke
4. ✗ focusing system

Question Number : 124 Question Id : 2310981024 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which is the correct full form of LISP from below?

Options :

1. ✗ Language Processing
2. ✓ List Processing
3. ✗ Language Inspection
4. ✗ Linguistics Programming

Question Number : 125 Question Id : 2310981025 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The characteristic of a computer system that is capable of reasoning, learning and problem solving is termed as:

Options :

1. ✓ artificial intelligence
2. ✗ human intelligence
3. ✗ virtual intelligence

Question Number : 126 Question Id : 2310981026 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In artificial intelligence, which among the following agents describes high quality behaviour (degree of happiness)?

Options :

1. ✖ goal-based agents
2. ✖ simple reflex agents
3. ✔ utility-based agents
4. ✖ agents that keep track of the world

Question Number : 127 Question Id : 2310981027 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Who among the following is known as the inventor of LISP?

Options :

1. ✔ John McCarthy
2. ✖ Alan Turing
3. ✖ John Backus
4. ✖ Marvin Minsky

Question Number : 128 Question Id : 2310981028 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

What will be the correct output of the below line when executed in LISP?

(write-line "Welcome to \"Park\"")

1. ✖ "Welcome to "Park"

2. ✔ Welcome to "Park"

3. ✖ "Welcome to Park"

4. ✖ Welcome to \"Park\"

Question Number : 129 Question Id : 2310981029 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following statements is NOT true about LISP?

Options :

1. ✔ It is machine-dependent

2. ✖ It is expression-based

3. ✖ It provides a convenient macro system

4. ✖ It provides high-level debugging

Question Number : 130 Question Id : 2310981030 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

What is the extension of Prolog source files?

Options :

1. ✔ .pl

2. ✖ .lg

3. ✖ .pp

4. ✖ .pg

Question Number : 131 Question Id : 2310981031 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is a free implementation of the programming language Prolog?

Options :

1. ✖ CLISP

2. ✖ LNU-Prolog

3. ✖ SWING-Prolog

4. ✔ SWI-Prolog

Question Number : 132 Question Id : 2310981032 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In NLP, the Coreference resolution is defined as the:

Options :

1. ✖ task anaphora resolution

2. ✖ task of determining a computer's logic

3. ✖ task of machine translation

4. ✔ task of finding all expressions that refer to the same entity in a text

Question Number : 133 Question Id : 2310981033 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

www.prepp.in In machine learning, the correct full form of ROC curve is :

Options :

1. ✓ Receiver Operating Characteristic curve
2. ✗ Revised Operating Characteristic curve
3. ✗ Recall Operation Characteristic curve
4. ✗ Represent Operating Characteristic curve

Question Number : 134 Question Id : 2310981034 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is an unsupervised machine learning algorithm?

Options :

1. ✓ Clustering
2. ✗ Decision Trees
3. ✗ K-Nearest Neighbour
4. ✗ Naive Bayes

Question Number : 135 Question Id : 2310981035 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The False Positive Rate (FPR) is defined as:

Options :

1. ✗ $FPR = TP/FP + TN$
2. ✗ $FPR = FP/TP + TN$

3. ✖ $FPR = TP/TP + TN$

4. ✔ $FPR = FP/FP + TN$

Question Number : 136 Question Id : 2310981036 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

What is the purpose of regression technique in machine learning?

Options :

1. ✔ Prediction

2. ✖ Classification

3. ✖ Clustering

4. ✖ Reinforcement

Question Number : 137 Question Id : 2310981037 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

What will be the output of the following code:

```
(defun num (n1 n2 n3 n4)
```

```
(/ (+ n1 n2 n3 n4) 4))
```

```
(write(num 10 20 30 40))
```

Options :

1. ✔ 25

2. ✖ 20

3. ✖ 24

Question Number : 138 Question Id : 2310981038 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Another name for lazy learning algorithm is:

Options :

1. ✓ K-Nearest Neighbor

2. ✗ Regression

3. ✗ Classification

4. ✗ Neural Networks

Question Number : 139 Question Id : 2310981039 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which among the following options is NOT true with regard to NLP?

Options :

1. ✓ NLP is predictable

2. ✗ NLP may require more keystrokes

3. ✗ It is very time-efficient

4. ✗ NLP helps computers to communicate with humans in their languages

Question Number : 140 Question Id : 2310981040 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The attribute of software that measures software quality in terms of its process speed, response time and resource consumption is:

Options :

1. ✓ Performance

2. ✗ Usability

3. ✗ Adaptability

4. ✗ Reliability

Question Number : 141 Question Id : 2310981041 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is NOT true about agile methods of software development?

Options :

1. ✗ They involve rapid delivery of software

2. ✗ There is a customer involvement

3. ✓ They are complex

4. ✗ They accept changing requirement

Question Number : 142 Question Id : 2310981042 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following UML models describes an external perspective of the system?

Options :

1. ✓ Context

2. ✗ Sequence

4. ✖ Class

Question Number : 143 Question Id : 2310981043 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is NOT true about the waterfall model?

Options :

1. ✖ It is a classic life cycle model

2. ✖ It is a linear model

3. ✖ It is a phased model

4. ✔ It supports backtracking

Question Number : 144 Question Id : 2310981044 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

CMMI is a short form for which of the following?

Options :

1. ✔ Capability Maturity Model Integration

2. ✖ Code Maturity Model Integration

3. ✖ Custom Maturity Model Integration

4. ✖ Capability Mode Maturity Integration

Question Number : 145 Question Id : 2310981045 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

The process of changing the software in such a way that it does not change external behaviour of the code but improves the internal structure is known as:

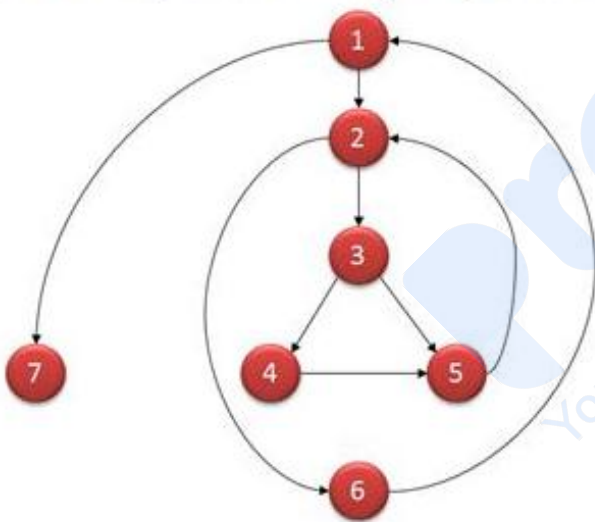
Options :

1. ✓ Refactoring
2. ✗ Rechanging
3. ✗ Redesigning
4. ✗ Factoring

Question Number : 146 Question Id : 2310981046 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3 Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

What is the cyclomatic complexity for the given graph?



Options :

1. ✓ 4
2. ✗ 9
3. ✗ 5
4. ✗ 7

Question Number : 147 Question Id : 2310981047 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

In the object-oriented design of software, what are the object components?

Options :

1. ✖ Attributes and name only
2. ✖ Operation and name only
3. ✔ Attributes, names and operations
4. ✖ Attributes and operations only

Question Number : 148 Question Id : 2310981048 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

What is the appropriate pairing of items in the two columns that list various activities encountered in a software life cycle?

P. Requirements Capture	1.Module Development and Integration
Q. Design	2.Domain Analysis
R. Implementation	3.Structural and Behavioural Modelling
S. Maintenance	4.Performance Tuning

Options :

1. ✖ P-3, Q-2, R-4, S-1
2. ✔ P-2, Q-3, R-1, S-4
3. ✖ P-3, Q-2, R-1, S-4
4. ✖ P-2, Q-3, R-4, S-1

Question Number : 149 Question Id : 2310981049 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following options is NOT a part of regression suite?

Options :

1. ✖ A representative sample of tests that will exercise all software functions
2. ✖ Additional tests that focus on software functions that are likely to be affected by the change
3. ✖ Tests that focus on the software components that have been changed
4. ✔ Only those tests that do not address one or more classes of errors

Question Number : 150 Question Id : 2310981050 Question Type : MCQ Option Shuffling : Yes Negative Marks Display Text : 2/3
Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0.66

Which of the following is NOT a benefit of smoke testing?

Options :

1. ✔ Integration risk is maximised
2. ✖ The quality of the end product is improved
3. ✖ Error diagnosis and correction are simplified
4. ✖ Progress is easier to assess