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<p>Q-1 The child was so spoiled by her indulgent parents that she became _____ when she did not receive all of their attention.</p> <p>A discreet <input type="checkbox"/> B elated <input type="checkbox"/> C sullen <input type="checkbox"/> D suspicious <input type="checkbox"/></p>			
<p>Q-2 Choose the one which best expresses the meaning of the Idiom "To flog a dead horse".</p> <p>A to do interesting things <input type="checkbox"/> B to try to take work from a weak horse <input type="checkbox"/> C to beat a horse that is dead <input type="checkbox"/> D to revive interest in a subject which is out of date <input checked="" type="checkbox"/></p>			
<p>Q-3 Which Mughal ruler was coroneted twice?</p> <p>A Shah Jahan <input type="checkbox"/> B Aurangzeb <input type="checkbox"/> C Akbar <input type="checkbox"/> D Jahangir <input type="checkbox"/></p>			
<p>Q-4 Which is not a measure undertaken by government to check inflation?</p> <p>A Taxation measures <input type="checkbox"/> B Increase in production <input type="checkbox"/> C Reduction in Deficit financing <input checked="" type="checkbox"/> D Increase in consumption <input type="checkbox"/></p>			
<p>Q-5 What was the religion of the early Vedic Aryans?</p> <p>A Worship of idols and nature <input type="checkbox"/> B Worship of idols and Yajnas <input type="checkbox"/> C Worship of nature and Yajnas <input type="checkbox"/> D Worship of Kings and Yajnas <input type="checkbox"/></p>			
<p>Q-6 What is the correct sequence of the following events? i) The Lucknow Pact ii) The Introduction on Dyarchy iii) The Rowlatt Act iv) The Partition of Bengal</p> <p>A i, iii, ii, iv <input type="checkbox"/> B iv, i, iii, ii <input type="checkbox"/> C i, ii, iii, iv <input type="checkbox"/> D iv, iii, ii, i <input type="checkbox"/></p>			
<p>Q-7 He would always be late with submission because he would _____ whatever he was supposed to do.</p> <p>A prevaricate <input type="checkbox"/> B procrastinate <input checked="" type="checkbox"/> C interrogate <input type="checkbox"/> D discriminate <input type="checkbox"/></p>			
<p>Q-8 The sight of a delicious food usually makes mouth watery. It is a _____</p> <p>A Hormonal response <input type="checkbox"/> B Neural response <input type="checkbox"/> C Olfactory response <input checked="" type="checkbox"/> D Optic response <input type="checkbox"/></p>			
<p>Q-9 When water is heated from 0°C to 10°C its volume _____</p> <p>A increases gradually <input type="checkbox"/> B decreases gradually <input checked="" type="checkbox"/> C first increases and then decreases <input type="checkbox"/> D first decreases and then increases <input type="checkbox"/></p>			
<p>Q-10 In a certain code COUNSEL is written as BITIRAK. How is GUIDANCE written in that code?</p> <p>A FOHYZJBB <input type="checkbox"/> B HOHYBJBA <input type="checkbox"/> C FPHZZKAB <input checked="" type="checkbox"/> D FORHZJBB <input type="checkbox"/></p>			
<p>Q-11 Which of the following is not included in the assets of a commercial bank in India?</p> <p>A Deposits <input type="checkbox"/> B Investments <input type="checkbox"/> C Advances <input checked="" type="checkbox"/> D Money at call and short notice <input type="checkbox"/></p>			
<p>Q-12 Choose the one which best expresses following sentence in indirect speech. Father said to me, "May you pass the examination?"</p> <p>A Father prayed that I might pass the examination. <input checked="" type="checkbox"/> B Father said to me that I may pass the examination. <input type="checkbox"/> C Father prayed that I may pass the examination. <input type="checkbox"/> D Father told me that I must pass the examination. <input type="checkbox"/></p>			
<p>Q-13 Choose the one which best expresses the meaning of the idiom "Fire in the belly".</p> <p>A Fear and hatred <input checked="" type="checkbox"/> B Powerful ambition <input type="checkbox"/> C Love and dedication <input type="checkbox"/> D Lethargy and indifference <input type="checkbox"/></p>			

Q-14 Choose the one which best expresses the following sentence in indirect speech. He said to me, "Do not run after money and then you will see money running after you."

- A He told to me that I did not run after money and then I would see money running after me. B He advised me not to run after money and then I would see money running after me.
C He warned me not to run after money and then I will see money running after me. D He warned me not to run after money and then money would run after me.

Q-15 Which Ministry is associated with the National Logistics Excellence Awards, launched recently?

- A Ministry of MSME B Ministry of Commerce and Industry
C Ministry of Road Transport and Highways D Ministry of Power

Q-16 I _____ reading for two hours before going to the Institute tomorrow.

- A had been B will have been
C am D will be

Q-17 B is the brother of A, S is the sister of B, E is the brother of D, D is the daughter of A, F is the father of S. Then the uncle of E is

- A A B B
C C D D

Q-18 In the tragic incident, none of the 145 passengers _____

- A is surviving B could survived
C survive D survived

Q-19 Quit India Movement was launched in response to

- A Cripps Proposals B Simon Commission Report
C Wavell Plan D Cabinet Mission Plan

Q-20 Which Indian organization has developed near-isothermal forging technology for producing jet engine components?

- A ISRO B DRDO
C BARC D HAL

Q-21 The maximum value of $f(x) = \sin x + \frac{1}{2} \cos 2x$ in $\left[0, \frac{\pi}{2}\right]$ is

- A $\frac{1}{2}$ B $\frac{1}{5}$
C $\frac{3}{2}$ D $\frac{3}{4}$

b

Q-22 Distance between the point $(1, 0, 9)$ and the plane $4x+3y+1=0$ is

- A 1 unit B 2 units
C 3 units D None of the above

Q-23 If $f(x) = |x|$ and $g(x) = |x^3|$, then

- A $f(x)$ and $g(x)$ both are continuous at $x=0$ B $f(x)$ and $g(x)$ both are differentiable at $x=0$
C $f(x)$ is discontinuous but $g(x)$ is continuous at $x=0$ D $f(x)$ is continuous but $g(x)$ is discontinuous at $x=0$

Q-24 If $y = \log \sqrt{\tan x}$, then the value of $\frac{dy}{dx}$ at $x = \frac{\pi}{4}$ is

A ∞

B 1

C 2

D -1

Q-25 The variance of first 50 even natural numbers is

A 833

B 433

C 732

D 800

Q-26

$\tan^{-1}1 + \tan^{-1}2 + \tan^{-1}3$ is equal to

A π

B

2π

C 0

D None of above

Q-27

The normal at the point (1, 1) on the curve $2y + x^2 = 3$ is

A $x + y = 0$

B $x + y + 1 = 0$

C $x - y = 0$

D $x + y = 1$

Q-28 The circle passing through (1, -2) and touching the axis of x at (3, 0) also passes through the point

A (2, -5)

B (5, -2)

C (-2, 5)

D (-5, -2)

Q-29 If $A = [a_{ij}]$ is a square matrix of even order such that $a_{ij} = |i^2 - j^2|$, then

A A is skew symmetric and singular matrix

B A is symmetric and singular matrix

C A has non zero diagonal entries

D None of the above

Q-30 If the straight line $2x - 3y + 17 = 0$ is perpendicular to the line passing through the points (7, 17) and (15, c), then c is

A 7

B -7

C 5

D -5

Q-31 If A is skew symmetric matrix of order 7, then

A A is invertible

B $|A|=0$

C $|A|=7$

D $|A|=-7$

Q-32 If A and B are non singular square matrices of order n, then $\text{adj}(AB)$ is equal to

A $(\text{adj } A)(\text{adj } B)$

B $(\text{adj } B)(\text{adj } A)$

C $\text{adj}(BA)$

D $\text{adj}(B+A)$

Q-33 The remainder obtained when $1! + 2! + 3! + 4! + \dots + 12!$ is divided by 12 is

A 0

B 1

C 8

D 9

Q-34

If $A = \begin{bmatrix} 1 & 0 & 2 \\ 0 & 2 & 1 \\ 2 & 0 & 3 \end{bmatrix}$, then

- | | | | |
|------------------------------|-------------------------------------|------------------------------|--------------------------|
| A $A^3 - 6A^2 + 7A + 2I = 0$ | <input checked="" type="checkbox"/> | B $A^2 - 7A^2 - 6A + 3I = 0$ | <input type="checkbox"/> |
| C $A^3 - A^2 + A + 4I = 0$ | <input type="checkbox"/> | D $A^3 + 6A^2 + 7A - I = 0$ | <input type="checkbox"/> |

Q-35 General solution of differential equation $e^x dy + (ye^x + 2x)dx = 0$ is

- | | | | |
|--------------------|--------------------------|--------------------|--------------------------|
| A $xe^y + x^2 = C$ | <input type="checkbox"/> | B $xe^y + y^2 = C$ | <input type="checkbox"/> |
| C $ye^x + x^2 = C$ | <input type="checkbox"/> | D $ye^y + x^2 = C$ | <input type="checkbox"/> |

Q-36 The order and degree of $(1 + 3 \frac{dy}{dx})^{\frac{2}{3}} = 4 \frac{d^3y}{dx^3}$ are respectively

- | | | | |
|-------|--------------------------|-------|-------------------------------------|
| A 1,1 | <input type="checkbox"/> | B 3,1 | <input checked="" type="checkbox"/> |
| C 1,3 | <input type="checkbox"/> | D 3,3 | <input type="checkbox"/> |

Q-37 If a, b and c are in A. P., then the value of $\begin{vmatrix} x+2 & x+3 & x+2a \\ x+3 & x+4 & x+2b \\ x+4 & x+5 & x+2c \end{vmatrix}$ is

- | | | | |
|------|-------------------------------------|-----|--------------------------|
| A 0 | <input checked="" type="checkbox"/> | B 1 | <input type="checkbox"/> |
| C -1 | <input type="checkbox"/> | D x | <input type="checkbox"/> |

Q-38 If two tangents drawn from a point P to the parabola $y^2 = 4x$ are at right angle, then the locus

of P is

- | | | | |
|----------|--------------------------|------------|--------------------------|
| A $x=1$ | <input type="checkbox"/> | B $2x+1=0$ | <input type="checkbox"/> |
| C $x=-1$ | <input type="checkbox"/> | D $2x=1$ | <input type="checkbox"/> |

Q-39 If a matrix A is both symmetric and skew symmetric, then

- | | | | |
|---------------------------------------|-------------------------------------|----------------------------|--------------------------|
| A A is null matrix | <input type="checkbox"/> | B A is non singular matrix | <input type="checkbox"/> |
| C At least one entry of A is non zero | <input checked="" type="checkbox"/> | D None of the above | <input type="checkbox"/> |

Q-40 The area of triangle with vertices (2, 7), (1, 1) and (10, 8) is

- | | | | |
|------------------|-------------------------------------|------------------|--------------------------|
| A 30 sq. units | <input type="checkbox"/> | B 35 sq. units | <input type="checkbox"/> |
| C 23.5 sq. units | <input checked="" type="checkbox"/> | D 21.5 sq. units | <input type="checkbox"/> |

Q-41 The limiting line in Balmer series will have a frequency of

- | | | | |
|--|--------------------------|--|--------------------------|
| A $3.29 \times 10^{15} \text{ s}^{-1}$ | <input type="checkbox"/> | B $3.65 \times 10^{14} \text{ s}^{-1}$ | <input type="checkbox"/> |
| C $5.26 \times 10^{13} \text{ s}^{-1}$ | <input type="checkbox"/> | D $8.22 \times 10^{14} \text{ s}^{-1}$ | <input type="checkbox"/> |

Q-42 Among the following groupings which represents the collection of Isoelectronic species?

- | | | | | | |
|---|---|-------------------------------------|---|---|--------------------------|
| A | $\text{NO}^+, \text{C}_2^{2+}, \text{O}_2^-, \text{CO}$ | <input type="checkbox"/> | B | $\text{N}_2, \text{C}_2^{2+}, \text{CO}, \text{NO}$ | <input type="checkbox"/> |
| C | $\text{CO}, \text{NO}^+, \text{CN}^-, \text{C}_2^-$ | <input checked="" type="checkbox"/> | D | $\text{NO}, \text{CN}^-, \text{N}_2, \text{O}_2^-$ | <input type="checkbox"/> |

Q-43 The equivalent mass of H_3BO_3 ($M =$ Molar mass of H_3BO_3) in its reaction with NaOH to form $\text{Na}_2\text{B}_4\text{O}_7$ is equal to

- | | | | | | |
|---|-------|--------------------------|---|-------|--------------------------|
| A | M | <input type="checkbox"/> | B | $M/2$ | <input type="checkbox"/> |
| C | $M/4$ | <input type="checkbox"/> | D | $M/6$ | <input type="checkbox"/> |

Q-44 Which of the following will have T-shaped structure

- | | | | | | |
|---|----------------|-------------------------------------|---|-----------------|--------------------------|
| A | PCl_3 | <input type="checkbox"/> | B | NH_3 | <input type="checkbox"/> |
| C | ClF_3 | <input checked="" type="checkbox"/> | D | AlCl_3 | <input type="checkbox"/> |

Q-45 10 mol of Fe reacts completely with 0.65 mol of O_2 to give a mixture of only Fe_2O_3 and Fe_3O_4 . The mole ratio of ferrous oxide to ferric oxide is

- | | | | | | |
|---|-------|--------------------------|---|-------|--------------------------|
| A | 2 : 2 | <input type="checkbox"/> | B | 4 : 2 | <input type="checkbox"/> |
| C | 1 : 2 | <input type="checkbox"/> | D | 2 : 7 | <input type="checkbox"/> |

Q-46 Which of the following has the maximum number of unpaired electrons?

- | | | | | | |
|---|------------------|--------------------------|---|------------------|-------------------------------------|
| A | Mg^{2+} | <input type="checkbox"/> | B | Ti^{3+} | <input type="checkbox"/> |
| C | V^{3+} | <input type="checkbox"/> | D | Fe^{2+} | <input checked="" type="checkbox"/> |

Q-47 H_2SO_4 is 98 % by weight of solution. Hence, it is:

- | | | | | | |
|---|----------|--------------------------|---|-----------|--------------------------|
| A | 1 molal | <input type="checkbox"/> | B | 10 molal | <input type="checkbox"/> |
| C | 50 molal | <input type="checkbox"/> | D | 500 molal | <input type="checkbox"/> |

Q-48 The energy required to break one mole of Cl-Cl bonds in Cl_2 is 242 kJ mol^{-1} . The longest wavelength of light capable of breaking a single Cl-Cl bond is

($c = 3 \times 10^8 \text{ m s}^{-1}$ and $N_A = 6.02 \times 10^{23} \text{ mol}^{-1}$).

- | | | | | | |
|---|--------|--------------------------|---|--------|--------------------------|
| A | 594 nm | <input type="checkbox"/> | B | 640 nm | <input type="checkbox"/> |
| C | 700 nm | <input type="checkbox"/> | D | 494 nm | <input type="checkbox"/> |

Q-49 The species which are arranged in correct order of increasing size are

- A $\text{Ca}^{2+}, \text{K}^+, \text{Ar}, \text{Cl}^-, \text{S}^{2-}$ B $\text{Ar}, \text{Ca}^{2+}, \text{K}^+, \text{Cl}^-, \text{S}^{2-}$
C $\text{Ca}^{2+}, \text{Ar}, \text{K}^+, \text{Cl}^-, \text{S}^{2-}$ D $\text{Ca}^{2+}, \text{K}^+, \text{Ar}, \text{S}^{2-}, \text{Cl}^-$

Q-50 The states of hybridization of boron and oxygen atoms in boric acid (H_3BO_3) are respectively

- A sp^3 and sp^2 B sp^2 and sp^3
C sp^2 and sp^2 D sp^3 and sp^3

Q-51 The de-Broglie wavelength of an electron in the ground state of hydrogen atom is: [K.E. = 19.6 eV; 1eV =

$$1.602 \times 10^{-30} \text{ J}]$$

- A 33.28 nm B 3.328 nm
C 0.3328 nm D 0.0332 nm

Q-52 3.0 molal NaOH solution has a density of 1.110 g / ml. The molarity of the solution is

- A 2.97 B 3.05
C 3.64 D 3.50

Q-53 Which has maximum molecules?

- A 7 g N_2 B 2 g H_2
C 16 g NO_2 D 16 g O_2

Q-54 Which of the following oxides is amphoteric in character?

- A SnO_2 B SiO_2
C CO_2 D CaO

Q-55 The screening effect of inner electrons of nucleus causes

- A A decrease in Ionization potential B An increase in Ionization potential
C No effect on Ionization potential D An increase in the attraction of nucleus to the electrons

Q-56 The translational kinetic energy of gas molecules for one mole of the gas is equal to

- A $3/2RT$ B $2/3KT$
C $1/2RT$ D $1/2KT$

Q-57 The centre of mass of a system shall be

- A At the centre of the system B Outside the system
C Inside the system D Inside or outside the system

Q-58 Relation between pressure P and average kinetic energy E per unit volume of a gas is

- A $P = 2E/3$ B $P = E/3$

C P= 3E/2

 D P= 3E

Q-59 A moving body is covering distances in proportion to the square of time along a straight line. The acceleration of the body is

- A Increasing B Decreasing
 C Zero D Constant

Q-60 What form of radioactive decay reduces the atomic number or number of protons by 2?

- A Alpha decay B Beta decay
 C Gamma decay D None of the above

Q-61 Whenever a wave enters from one medium to another, its

- A Frequency changes B Frequency does not change
 C Velocity changes D Wavelength remains constant

Q-62 The direction of motion of a projectile at the highest point of its trajectory becomes

- A Horizontal B Vertical
 C Tangential D None of these

Q-63 A particle moves in a circle of radius 30cm with a constant speed of 6 m s^{-1} . Its acceleration is

- A Zero B 20 m s^{-2}
 C 108 m s^{-2} D 120 m s^{-2}

Q-64 How does the Intensity affect the photoelectric current?

- A As intensity increases, the photoelectric effect increases B As the intensity increases, the photoelectric effect decreases
 C As the intensity decreases, the photoelectric effect becomes twice D No effect

Q-65 The ideal gas is one, which obeys

- A Boyle's law B Charles' law
 C Boyle's law and Charles' law D Avogadro's law

Q-66 Moment of Inertia of a circular wire of mass M and radius R about its diameter is

- A $\frac{1}{2}MR^2$ B MR^2
 C $2MR^2$ D $\frac{1}{4}MR^2$

Q-67 In X-ray emission tubes, X-ray is emitted by the acceleration of _____

- A Atoms B Protons
 C Electrons D Neutrons

Q-68 A ring of mass m and radius r rotates about an axis passing through its center and perpendicular to its plane with angular velocity ω . Its kinetic energy is

- A $\frac{1}{2}m r^2 \omega^2$ B $m r \omega^2$
 C $m r^2 \omega^2$ D $\frac{1}{2}m r \omega^2$

Q-69 The time-dependent graph of a moving particle is a straight line. Then,

- A Its velocity may be uniform B Its acceleration may be uniform
 C Both its velocity and acceleration may be uniform D Its acceleration must be variable

Q-70 The moment of inertia of a body comes into play			
A In motion along a curved path	<input type="checkbox"/>	B In linear motion	<input type="checkbox"/>
C In rotational motion	<input checked="" type="checkbox"/>	D None of the above	<input type="checkbox"/>
Q-71 _____ addresses on header change as a packet moves from network to network but the _____ does not.			
A Logical; port	<input checked="" type="checkbox"/>	B Logical; physical	<input type="checkbox"/>
C Logical; network	<input type="checkbox"/>	D Physical; logical	<input type="checkbox"/>
Q-72 An XNOR gate produces an output only when its two inputs are			
A high	<input type="checkbox"/>	B low	<input type="checkbox"/>
C different	<input type="checkbox"/>	D same	<input type="checkbox"/>
Q-73 White Box techniques are also classified as			
A design based testing	<input checked="" type="checkbox"/>	B structural testing	<input type="checkbox"/>
C error guessing technique	<input type="checkbox"/>	D None of these	<input type="checkbox"/>
Q-74 Which is not an integrating instrument?			
A Watt hour meter	<input type="checkbox"/>	B voltmeter	<input checked="" type="checkbox"/>
C ampere hour meter	<input type="checkbox"/>	D None of the above	<input type="checkbox"/>
Q-75 Debugging is			
A creating program code	<input type="checkbox"/>	B finding and correcting errors in a code of program	<input checked="" type="checkbox"/>
C identifying the task to be computerized	<input type="checkbox"/>	D creating the algorithm	<input type="checkbox"/>
Q-76 Ohm's law is not applicable to			
A DC circuits	<input type="checkbox"/>	B high currents	<input type="checkbox"/>
C small resistors	<input type="checkbox"/>	D semi-conductors	<input checked="" type="checkbox"/>
Q-77 Convert 1100101_2 into octal base system.			
A 145_8	<input checked="" type="checkbox"/>	B 135_8	<input type="checkbox"/>
C 245_8	<input type="checkbox"/>	D 147_8	<input type="checkbox"/>
Q-78 8 Flip Flop stores _____ bit(s)			
A 8 bits	<input checked="" type="checkbox"/>	B 1 bit	<input type="checkbox"/>
C 16 bits	<input type="checkbox"/>	D 2 bits	<input type="checkbox"/>
Q-79 _____ modulation is used for radio transmission in India			
A frequency	<input type="checkbox"/>	B amplitude	<input checked="" type="checkbox"/>
C phase	<input type="checkbox"/>	D None of the above	<input type="checkbox"/>
Q-80 Virtual memory is located at			
A RAM	<input type="checkbox"/>	B CPU	<input checked="" type="checkbox"/>
C Flash memory	<input type="checkbox"/>	D Hard drive	<input type="checkbox"/>
Q-81 What does not an oscillator converts?			
A DC power into AC power	<input type="checkbox"/>	B AC Power into DC power	<input type="checkbox"/>
C both A and B DC Power	<input type="checkbox"/>	D None of the above	<input checked="" type="checkbox"/>

Q-82 The bridge used to measure the dielectric loss of an insulator is			
A Anderson bridge C Schering bridge	<input type="checkbox"/>	B Wein's bridge D Any of the above	<input type="checkbox"/>
Q-83 If the page size increases, the internal fragmentation			
A decreases C remains constant	<input type="checkbox"/>	B Increases D Is not effected	<input type="checkbox"/>
Q-84 The term attribute refers to a _____ in a table.			
A record C tuple	<input checked="" type="checkbox"/>	B column D key	<input type="checkbox"/>
Q-85 In a two pass assembler, the object code generation is done during			
A pass zero C second pass	<input type="checkbox"/>	B first pass D third pass	<input type="checkbox"/>
Q-86 What is the name of the location address of the hypertext documents?			
A Uniform Resource Locator C File	<input checked="" type="checkbox"/>	B Web server D Web address	<input type="checkbox"/>
Q-87 Which one of the following refers to the copies of the same data (or information) occupying the memory space at multiple places?			
A Data Repository C Data Mining	<input type="checkbox"/>	B Data Inconsistency D Data Redundancy	<input checked="" type="checkbox"/>
Q-88 A data structure in which elements can be inserted or deleted at/from both ends but not in the middle is a			
A queue C dequeue	<input type="checkbox"/>	B circular queue D priority queue	<input checked="" type="checkbox"/>
Q-89 Which of the following can be used as series to parallel converter?			
A Decoder C Multiplexer	<input type="checkbox"/>	B Digital counter D Demultiplexer	<input checked="" type="checkbox"/>
Q-90 Why can't the DC ammeter measure an alternating current?			
A The average value of a complete cycle is zero C AC cannot pass through a DC ammeter	<input checked="" type="checkbox"/>	B AC is virtual D All of the above	<input type="checkbox"/>
Q-91 What is the major advantage of using Incremental Model?			
A Customer can respond to each increment C It is used when there is a need to get a product to the market early	<input checked="" type="checkbox"/>	B Easier to test and debug D Easier to test and debug. Also, it is used when there is a need to get a product to the market early	<input type="checkbox"/>
Q-92 Two ideal voltage sources of unequal output voltages cannot be placed in			
A series C parallel	<input type="checkbox"/>	B both series and parallel D None of the above	<input type="checkbox"/>
Q-93 Cells are connected in series in order to increase the _____			
A current capacity C voltage rating	<input type="checkbox"/>	B life of the cells D terminal voltage	<input type="checkbox"/>
Q-94 Parsing is also a			
A syntax analysis C semantic analysis	<input type="checkbox"/>	B lexical analysis D none of these	<input checked="" type="checkbox"/>
Q-95 Which of the following refers to characteristics of an array?			
An array is a set of similar data items		<input checked="" type="checkbox"/>	An array is a set of distinct data items

A	An array can hold data of different datatypes	<input type="checkbox"/>	B	None of these	<input type="checkbox"/>
C		<input type="checkbox"/>	D		<input type="checkbox"/>
Q-96 An analog signal has significant spectral components from 1 KHz to 5 KHz. What is the Nyquist sampling rate for this signal?					
A	5 k samples/s	<input type="checkbox"/>	B	4 k samples/s	<input type="checkbox"/>
C	8 k samples/s	<input checked="" type="checkbox"/>	D	10 k samples/s	<input type="checkbox"/>
Q-97 Which of the following is not a direct measure of Software Engineering process?					
A	Efficiency	<input checked="" type="checkbox"/>	B	Cost	<input type="checkbox"/>
C	Effort applied	<input type="checkbox"/>	D	All of these	<input type="checkbox"/>
Q-98 Cache memory acts between					
A	CPU and RAM	<input checked="" type="checkbox"/>	B	RAM and ROM	<input type="checkbox"/>
C	CPU and Hard Disk	<input type="checkbox"/>	D	None of these	<input type="checkbox"/>
Q-99 Selection of a model in software development life cycle is based on					
A	requirements	<input type="checkbox"/>	B	development team & users	<input type="checkbox"/>
C	project type and associated risk	<input type="checkbox"/>	D	all of these	<input checked="" type="checkbox"/>
Q-100 A CE transistor amplifier is preferred because of					
A	high-input impedance	<input checked="" type="checkbox"/>	B	low-current gain	<input type="checkbox"/>
C	low output impedance	<input type="checkbox"/>	D	high-voltage gain	<input type="checkbox"/>
Q-101 The unit of energy meter is expressed in					
A	kWh	<input checked="" type="checkbox"/>	B	Vh	<input type="checkbox"/>
C	Wh	<input type="checkbox"/>	D	Ah	<input type="checkbox"/>
Q-102 The DMA transfer is initiated by _____					
A	processor	<input type="checkbox"/>	B	the process being executed	<input type="checkbox"/>
C	I/O devices	<input type="checkbox"/>	D	OS	<input type="checkbox"/>
Q-103 When transistor operated between cutoff and saturation region, the transistor acts like					
A	a switch	<input checked="" type="checkbox"/>	B	an amplifier	<input type="checkbox"/>
C	a variable capacitor	<input type="checkbox"/>	D	a variable resistance rule	<input type="checkbox"/>
Q-104 The practical example of ideal voltage source is _____					
A	Lead acid cell	<input checked="" type="checkbox"/>	B	Dry cell	<input type="checkbox"/>
C	Daniel cell	<input type="checkbox"/>	D	None of the above	<input type="checkbox"/>
Q-105 Op-amp is a/an _____					
A	oscillator	<input checked="" type="checkbox"/>	B	differential amplifier	<input type="checkbox"/>
C	rectifier	<input type="checkbox"/>	D	None of the above	<input type="checkbox"/>
Q-106 The BJT is					
A	a unipolar device	<input type="checkbox"/>	B	bipolar device	<input type="checkbox"/>
C	a current controlled device	<input checked="" type="checkbox"/>	D	none of the above	<input type="checkbox"/>
Q-107 How many 32K x 1 RAM chips are needed to provide a memory capacity of 256K-bytes?					
A	8	<input checked="" type="checkbox"/>	B	32	<input type="checkbox"/>
C	64	<input type="checkbox"/>	D	128	<input type="checkbox"/>
Q-108 What does the earth electrode provides?					
A	medium resistance	<input type="checkbox"/>	B	low resistance	<input checked="" type="checkbox"/>
C	high resistance	<input type="checkbox"/>	D	all of the above	<input type="checkbox"/>
To which of the following is the superposition theorem applicable?					

Q-109		A voltage	<input type="checkbox"/>	B current	<input type="checkbox"/>	C power	<input type="checkbox"/>	D all of the above	<input checked="" type="checkbox"/>
Q-110 What is solar cell?									
A Photovoltaic cell		<input checked="" type="checkbox"/>	B photometer	<input type="checkbox"/>	C photoconductive cell		<input type="checkbox"/>	D none of the above	<input type="checkbox"/>
Q-111 When generating physical addresses from a logical address the offset is stored in _____									
A translation look-aside buffer		<input type="checkbox"/>	B relocation register	<input type="checkbox"/>	C page table		<input type="checkbox"/>	D shift register	<input type="checkbox"/>
Q-112 Maxwell bridge is used to measure									
A Resistance		<input type="checkbox"/>	B Inductance	<input checked="" type="checkbox"/>	C Capacitance		<input type="checkbox"/>	D Frequency	<input type="checkbox"/>
Q-113 When the peak output voltage is 50V, the PIV for each diode in a center tapped full-wave rectifier is (neglecting the diode drop)									
A 200V		<input type="checkbox"/>	B 100V	<input checked="" type="checkbox"/>	C 141V		<input type="checkbox"/>	D 50V	<input type="checkbox"/>
Q-114 A 100W bulb is connected in series with a room heater. If now 100W bulb is replaced by a 40W bulb, the heater output will:									
A Increase		<input type="checkbox"/>	B decrease	<input checked="" type="checkbox"/>	C remain the same		<input type="checkbox"/>	D None of the above	<input type="checkbox"/>
Q-115 Which one is the reciprocal of impedance?									
A Reactance		<input type="checkbox"/>	B Admittance	<input checked="" type="checkbox"/>	C Inductance		<input type="checkbox"/>	D Conductance	<input type="checkbox"/>
Q-116 When the load current is maximum, the zener current will be_____									
A maximum		<input type="checkbox"/>	B minimum	<input checked="" type="checkbox"/>	C zero		<input type="checkbox"/>	D none of the above	<input type="checkbox"/>
Q-117 In nodal analysis, if there are N nodes in the circuit then, how many equations will be written to solve the network?									
A N-1		<input type="checkbox"/>	B N+1	<input type="checkbox"/>	C N		<input checked="" type="checkbox"/>	D N-2	<input type="checkbox"/>
Q-118 Which are the collision-free methods/technologies used to access the Medium Access Control (MAC)?									
A Token Bus		<input checked="" type="checkbox"/>	B Token Ring	<input type="checkbox"/>	C Both Token Ring and Token Bus		<input type="checkbox"/>	D None of these	<input type="checkbox"/>
Q-119 Which of the following is false about a doubly linked list?									
A It can be navigated in both the directions		<input type="checkbox"/>	B It requires more space than a singly linked list	<input type="checkbox"/>	C The insertion and deletion of a node takes a bit longer		<input type="checkbox"/>	D Implementing a doubly linked list is easier than singly linked list	<input checked="" type="checkbox"/>
Q-120 Kirchhoff's current law is applicable to only									
A open loop networks		<input type="checkbox"/>	B Electric circuits	<input type="checkbox"/>	C Junction in a networks		<input checked="" type="checkbox"/>	D None of the above	<input type="checkbox"/>
Q-121 BIOS is used									
A by operating system		<input checked="" type="checkbox"/>	B by compiler	<input type="checkbox"/>	C by interpreter		<input type="checkbox"/>	D by application software	<input type="checkbox"/>
Q-122 Which data structure is mostly preferred in implementation of a recursive algorithm?									
A Linked List		<input type="checkbox"/>	B Stack	<input checked="" type="checkbox"/>	C Queue		<input type="checkbox"/>	D Tree	<input type="checkbox"/>

Q-123 When a 50Hz sinusoidal signal is applied to the input of a full-wave rectifier, the output frequency is

- A 100 Hz
C 0Hz

- B 50 Hz
 D 30Hz

Q-124 "What is the output of the following?

```
#include<stdio.h>
int main(void)
{
    int a = 1;
    int b = 0;
    b = ++a + ++a;
    printf("%d %d",b);
    return 0;
}"
```

- A 3
C 5

- B 4
 D 6

Q-125 The functions of a Logical Link Layer (LLC) are _____

- A Error control
C Creating and managing the communication link between two devices with the help of the Transport layer

- B Flow control
 D All of these

Q-126 Which of the following storage is the lowest in the memory hierarchy?

- A Cache memory
C Secondary memory

- B Random access memory
 D None of these

Q-127 Consider the periodic signal $x(t) = (1+0.5 \cos 40\pi t) \cos 200\pi t$, where t is in seconds. Its fundamental frequency, in Hz is

- A 20
C 100

- B 40
 D 200

Q-128 What is the another name for a unity gain amplifier?

- A Linear amplifier
C Comparator

- B Voltage follower
 D Oscillator

Q-129 The a.c resistance of a crystal diode is _____ then its d.c resistance.

- A more
C same

- B zero
 D none of the above

Q-130 Goals for the design of the logical schema include

- A avoiding data inconsistency
C being able to access data efficiently

- B being able to construct queries easily
 D all of these

Q-131 Which of the following address belongs class A?

- A 121.12.12.248
C 128.12.12.248

- B 130.12.12.248
 D 129.12.12.248

Q-132 The register used to store the flags is called as _____

- A flag register
C test register

- B status register
 D log register

Q-133 Which of the following features must be supported by any programming language to become a pure object-oriented programming language?

- | | | | |
|-----------------|--------------------------|----------------|-------------------------------------|
| A Encapsulation | <input type="checkbox"/> | B Inheritance | <input type="checkbox"/> |
| C Polymorphism | <input type="checkbox"/> | D All of these | <input checked="" type="checkbox"/> |

Q-134 Which of the following techniques are used to effectively utilize main memory?

- | | | | |
|-------------------|--------------------------|------------------------------------|-------------------------------------|
| A Address binding | <input type="checkbox"/> | B Dynamic linking | <input type="checkbox"/> |
| C Dynamic loading | <input type="checkbox"/> | D Both Dynamic linking and loading | <input checked="" type="checkbox"/> |

Q-135 The types of transmission channel or media used for LAN or WAN are _____.

- | | | | |
|--------------------------------------|--------------------------|------------------|-------------------------------------|
| A Twisted Pair Cables | <input type="checkbox"/> | B Coaxial Cables | <input checked="" type="checkbox"/> |
| C Fiber-Optic Cables and Radio Waves | <input type="checkbox"/> | D All of these | <input type="checkbox"/> |

Q-136 Stability of transfer gain is generally defined as the reciprocal of _____

- | | | | |
|------------------------------------|--------------------------|---------------|-------------------------------------|
| A Desensitivity power factor meter | <input type="checkbox"/> | B sensitivity | <input checked="" type="checkbox"/> |
| C conductivity | <input type="checkbox"/> | D resistivity | <input type="checkbox"/> |

Q-137 The rating of a fuse wire is always expressed in

- | | | | |
|-----------|--------------------------|----------------|-------------------------------------|
| A amperes | <input type="checkbox"/> | B ampere-volts | <input type="checkbox"/> |
| C kWh | <input type="checkbox"/> | D ampere-hours | <input checked="" type="checkbox"/> |

Q-138 Which of the following is the disadvantage of the array?

- | | | | |
|---|-------------------------------------|--|--------------------------|
| A Stack and Queue data structures can be implemented through an array | <input type="checkbox"/> | B Index of the first element in an array can be negative | <input type="checkbox"/> |
| C Wastage of memory if the elements inserted in an array are lesser than the allocated size | <input checked="" type="checkbox"/> | D Elements are accessed sequentially | <input type="checkbox"/> |

Q-139 A gigabyte is equal to

- | | | | |
|---------------------|--------------------------|----------------------|-------------------------------------|
| A 1024 bytes | <input type="checkbox"/> | B 1024 megabytes | <input checked="" type="checkbox"/> |
| C million megabytes | <input type="checkbox"/> | D thousand kilobytes | <input type="checkbox"/> |

Q-140 Efficiency of a centre tapped full wave rectifier is _____

- | | | | |
|----------|--------------------------|---------------------|-------------------------------------|
| A 40.10% | <input type="checkbox"/> | B 81.20% | <input checked="" type="checkbox"/> |
| C 54.40% | <input type="checkbox"/> | D none of the above | <input type="checkbox"/> |

Q-141 A web browser is

- | | | | |
|---|--------------------------|---|-------------------------------------|
| A a program that can display a web page | <input type="checkbox"/> | B a program used to view html documents | <input type="checkbox"/> |
| C a program to access the resources of internet | <input type="checkbox"/> | D All of these | <input checked="" type="checkbox"/> |

Q-142 FIFO scheduling is

- | | | | |
|-----------------------------|-------------------------------------|-------------------------|--------------------------|
| A Fair-share scheduling | <input type="checkbox"/> | B Deadline scheduling | <input type="checkbox"/> |
| C Non-preemptive scheduling | <input checked="" type="checkbox"/> | D Preemptive scheduling | <input type="checkbox"/> |

Q-143 The value of Negative feedback fraction is always _____

- | | | | |
|---------------|-------------------------------------|---------------------|--------------------------|
| A less than 1 | <input checked="" type="checkbox"/> | B more than 1 | <input type="checkbox"/> |
| C zero | <input type="checkbox"/> | D none of the above | <input type="checkbox"/> |

Q-144 The output of an op-amp increases 8 V in 12 μ s. The slew rate is

- | | | | |
|------------------|--------------------------|--------------------|-------------------------------------|
| A 96 V/ μ s | <input type="checkbox"/> | B 10.67 V/ μ s | <input checked="" type="checkbox"/> |
| C 1.5 V/ μ s | <input type="checkbox"/> | D None of these | <input type="checkbox"/> |

Q-145 What are the various Testing Levels?

- | | | | |
|-----------------------|--------------------------|------------------|-------------------------------------|
| A Unit Testing | <input type="checkbox"/> | B System Testing | <input type="checkbox"/> |
| C Integration Testing | <input type="checkbox"/> | D All of these | <input checked="" type="checkbox"/> |

Q-146 The peak value of sine wave is equal to

- A 1.44x
C 1.414x

- B 0.414x
 D 0



Q-147 Which of the following refers to the level of data abstraction that describes exactly how the data is actually stored?

- A Conceptual Level
C File Level

- B Physical Level
 D Logical Level



Q-148 In computers, subtraction is carried out generally by _____.

- A 1's complement method
C signed magnitude method

- B 2's complement method
 D BCD subtraction method



Q-149 Page fault occurs when

- A the page is present in memory
C a deadlock occurs

- B the page is not present in memory
 D the buffering occurs



Q-150 As the temperature of a Transistor goes up base-emitter resistance _____.

- A Remain the same
C decreases

- B increases
 D none of the above



Red color indicates the answer filled by student is wrong. And Green Color indicates correct answer.