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Navik GD

**Memory Based Paper
2022 (ALL SHIFT)**



110 Questions

Que. 1 **Directions: What is the most appropriate synonym of the given word?**

Mollify

1. avenge
2. appease
3. ignore
4. book

Correct Option - 2

Que. 2 **Direction: Select the word that is most SIMILAR in meaning to the given word.**

Nullify

1. cancel
2. upload
3. uphold
4. restore

Correct Option - 1

Que. 3 **Select the most appropriate ANTONYM for the word.**

Emancipate

1. poverty
2. liberation
3. upliftment
4. confined

Correct Option - 4

Que. 4 **Select the most appropriate ANTONYM of the given word.**

Foremost

1. eventual
2. further
3. last
4. maimed

Correct Option - 3

Que. 5 **Select the meaning of the given phrase/idiom.**

'At sixes and sevens'

1. Accessible
2. Going strong
3. In disorder
4. In moderation

Correct Option - 3

Que. 6 Directions: Select an appropriate one-word for the given sentence.

A picture or pattern produced by arranging together small pieces of stone, glass, or ceramic to form a piece of art.

1. Collage
2. Montage
3. Mosaic
4. Fresco

Correct Option - 3

Que. 7 Out of the given four words only one is spelt correctly. Find the word that is correctly spelt.

1. Untill
2. Tommorrow
3. Truly
4. Wether

Correct Option - 3

Que. 8 Fill in the blank with appropriate word or preposition.

Rahul is addicted _____ gambling.

1. to
2. with
3. of
4. on

Correct Option - 1

Que. 9 In the following question, the sentence given with a blank is to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.

His uncle used to _____ him after his parents died.

1. Look after
2. Look down upon
3. Look up

4. Look into

Correct Option - 1

Que. 10 Select the option that expresses the given sentence in passive voice.

Somebody stole my favourite shoes.

1. My favourite shoes were stolen.
2. My favourite shoes got stolen.
3. My favourite shoes are stolen.
4. My favourite shoes was stolen.

Correct Option - 1

Que. 11 In the following question, a sentence has been given in Active/Passive voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active voice.

My daughter read the entire novel in one day.

1. The entire novel is read by my daughter in one day
2. In one day my daughter read the entire novel.
3. The entire novel was read by my daughter in one day.
4. In one day my daughter has read the entire novel.

Correct Option - 3

Que. 12 Direction: In the following question, a sentence is given in Direct/Indirect speech. Out of the four alternatives choose the one which best expresses the sentence in Indirect/Direct Speech.

Max said to John, "Why didn't you join us yesterday?"

1. Max said to John why he hadn't joined them yesterday
2. Max asked John why he hadn't joined them the day before
3. Max asked John why he hadn't joined them yesterday
4. Max said to John why he hadn't joined them the day before

Correct Option - 2

Que. 13 Select the correct indirect form of the given sentence.

Roopa said to me, "Please accompany me to the market."

1. Roopa said please accompany me to the market.
2. Roopa said to me that you must accompany me to the market.
3. Roopa is requesting me to accompany her to the market.
4. Roopa requested me to accompany her to the market.

Correct Option - 4

Que. 14 Identify the segment of the sentence, which contains a grammatical error. If there is no error in the sentence, mark ' No error '.

China produces more food (A) / than any other countries in (B) / the entire world says reports. (C) / No Error (D)

1. A
2. B
3. C
4. D

Correct Option - 2

Que. 15 The following sentence has been split into four segments. Identify the segment that contains a grammatical error.

The dignitaries / had left before / the Minister / had arrived at the venue.

1. had left before
2. The dignitaries
3. had arrived at the venue
4. the Minister

Correct Option - 3

Que. 16 Which metal is used for making solar cell?

1. Gold
2. Iron
3. Aluminium
4. Silicon

Correct Option - 4

Que. 17 Lemon contains which acid?

1. Palmitic acid
2. Nitric acid
3. Tartaric acid
4. Citric acid

Correct Option - 4

Que. 18 The subatomic particle that has negative charge:

1. Electron
2. Proton
3. Neutron
4. None of these

Correct Option - 1

Que. 19 Ethane, with the molecular formula C_2H_6 has:

1. 9 covalent bonds
2. 6 covalent bonds
3. 7 covalent bonds
4. 12 covalent bonds

Correct Option - 3

Que. 20 What is the formula of cyclohexane?

1. C_6H_{12}
2. C_6H_{14}
3. C_6H_6
4. C_6H_{10}

Correct Option - 1

Que. 21 What is the chemical name of Vitamin C?

1. Citric Acid
2. Ascorbic Acid
3. Thiamine
4. Tartaric Acid

Correct Option - 2

Que. 22 The waves which can propagate even through the vacuum, are called _____.

1. Mechanical waves
2. Reverse waves
3. Inverted waves
4. Electromagnetic waves

Correct Option - 4

Que. 23 Which of the following vitamins are water soluble?

1. Vit. A and Vit. B
2. Vit. B and Vit. C
3. Vit. C and Vit. D
4. Vit. A and Vit. K

Correct Option - 2

Que. 24 Swine flu in pigs is a disease caused by an influenza _____

1. Bacteria
2. Virus
3. Fungi
4. Protozoa

Correct Option - 2

Que. 25 _____ is the unit of thermal conductivity.

1. $\text{J} \cdot \text{s}^{-1} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$
2. $\text{J} \cdot \text{s} \cdot \text{K}$
3. $\text{J}^{-1} \cdot \text{s}^{-1} \cdot \text{Kg}^{-1}$
4. $\text{J} \cdot \text{s}^{-1} \cdot \text{K}$

Correct Option - 1

Que. 26 Kuchipudi is the famous dance of which state?

1. Tamil Nadu
2. Kerala
3. Andhra Pradesh
4. Odisha

Correct Option - 3

Que. 27 Which of the following is a terrestrial planet?

1. Saturn
2. Neptune
3. Venus
4. Jupiter

Correct Option - 3

Que. 28 When did the Quit India Movement Start?

1. 1930
2. 1942
3. 1932
4. 1940

Correct Option - 2



Que. 29 When is the Indian Coast Guard Day celebrated?

1. 1 February
2. 2 February
3. 3 February
4. 4 February

Correct Option - 1

Que. 30 In India, Who was appointed the new Chief of Defence Staff (CDS) in September 2022?

1. Yogendra Dimri
2. Rana Pratap Kalita
3. Anil Chauhan
4. Manoj Mukund Naravane

Correct Option - 3

Que. 31 The age ratio of A to B is 4:5. After 4 years this ratio becomes 14:17. What is the current age of B?

1. 65
2. 30
3. 40
4. 50

Correct Option - 2

Que. 32 What is the sum of mean, mode and median of the following data?

14, 9, 12, 11, 15, 28, 23, 17, 28, 53 ?

1. 54
2. 59
3. 56
4. 65

Correct Option - 4

Que. 33 Ratio of age of Sonu & Monu is 9:12. If age of Sonu is 27 year then age of Monu will be

1. 50
2. 56
3. 36
4. 60

Correct Option - 3

Que. 34 $1 + 4 + 9 + 16 + 25 + \dots + 81 + 100 = ?$

1. 700
2. 690
3. 385
4. 750

Correct Option - 3

Que. 35 What will come in the place of the question mark '?' in the following question?

$$200 \div 5 \times 40 - 57 - 24 + 400 + 315 = ?$$

1. 3245
2. 2234
3. 2000
4. 5460

Correct Option - 2

Que. 36 If $(\sqrt{2})^x + (\sqrt{3})^x = (\sqrt{13})^{x/2}$, then the number of value of x is ?

1. 3
2. 1
3. 4
4. 0

Correct Option - 3

Que. 37 The average weight of 12 students was 60 kg. What will be their total weight?

1. 630 kg
2. 550 kg
3. 720 kg
4. 220 kg

Correct Option - 3

Que. 38 If a shopkeeper provides a customer 920 grams of goods instead of 1 kg, what is the percentage profit for the shopkeeper?

1. $\frac{200}{23} \%$
2. 20 %
3. $\frac{100}{27} \%$
4. 50 %

Correct Option - 1

Que. 39 If $x - y = 13$ and $xy = 25$, then the value of $x^2 - y^2 = ?$

1. $13\sqrt{229}$
2. $13\sqrt{210}$
3. $13\sqrt{269}$
4. $13\sqrt{240}$

Correct Option - 3

Que. 40 If A fills a tank in 30 min and B empties it in 60 minutes, how long will it take to fill the tank if both A and B are operated together?

1. 15 min
2. 55 min
3. 83 min
4. 60 min

Correct Option - 4

Que. 41 If numbers A and B are 20% and 30% less than a third number C, respectively. What is the ratio of A to B?

1. 2 : 3
2. 8 : 7
3. 9 : 5
4. 1 : 1

Correct Option - 2

Que. 42 If the price of gas has decreased from 25,000 to 20,000, what is the percentage decrease in the price of gas?

1. 9 %
2. 20 %
3. 33 %
4. 25 %

Correct Option - 2

Que. 43 If the area of a circle is 616 cm^2 , what is the radius of the circle?

1. 14 cm
2. 22 cm
3. 30 cm
4. 18 cm

Correct Option - 1

Que. 44 $\frac{1+\tan^2 x}{1+\cot^2 x}$ is equal to:

1. -1
2. $\tan^2 x$
3. $\sec^2 x$
4. $\cot^2 x$

Correct Option - 2

Que. 45 If A can complete a task in 10 days, B can do it in 12 days, and C in 15 days, how many days will it take for all three of them to complete the task together?

1. 4
2. 5
3. 10
4. 12

Correct Option - 1

Que. 46 If A, B, and C can individually complete a task in 12, 15, and 20 days respectively, then working together, how many days will they take to complete the task?

1. 16 days
2. 10 days
3. 14 days
4. 5 days

Correct Option - 4

Que. 47 In the figure, $\triangle ABC$ is a triangle such that $\frac{AB}{AC} = \frac{BD}{DC}$, $\angle B = 70^\circ$, $\angle C = 50^\circ$. Find $\angle BAD$.



1. 35°
2. 30°
3. 45°
4. 50°

Correct Option - 2

Que. 48 In a flock of sheep, half of the sheep walked away, and three-fourths of the remaining sheep wandered off. In the end, 9 sheep were left, which went to drink water. So, what was the total number of sheep in the beginning?

1. 55
2. 72
3. 60
4. 85

Correct Option - 2

Que. 49 If x is more than 10% of y, then by what percentage is y less than x?

1. $9\frac{1}{11}\%$
2. 20%
3. 12.5%
4. $14\frac{1}{7}\%$

Correct Option - 1

Que. 50 The value of $\cos 0^\circ \cos 1^\circ \cos 2^\circ \dots \cos 100^\circ$ is -

1. 0
2. 1
3. $\frac{1}{2}$
4. ∞

Correct Option - 1

Que. 51 **Directions:** In this question a series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

6, 18, 54, 162, ?

1. 488
2. 496
3. 486
4. 386

Correct Option - 3

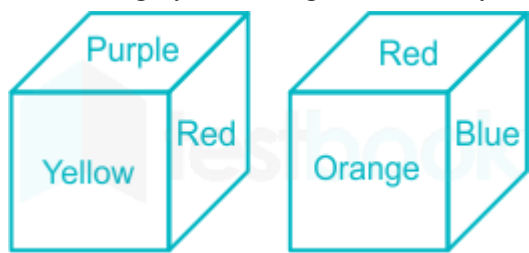
Que. 52 Four words have been given as options, out of which three are alike in some manner, while the fourth one is different. Select the odd word.

1. Ear

2. Eye
3. Heart
4. Lungs

Correct Option - 3

Que. 53 The surface of a single dice shown as per the picture below is painted with PURPLE, red, yellow, blue, gray and orange colors. Gray color what color is the surface of opposite surface?



1. Yellow
2. Blue
3. Red
4. Orange

Correct Option - 3

Que. 54 In a certain code. LIGHT is written as GSTRO. How will GYPSY be written in that code?

1. BHOBT
2. BHJBT
3. BHKBT
4. BHHBT

Correct Option - 3

Que. 55 Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.

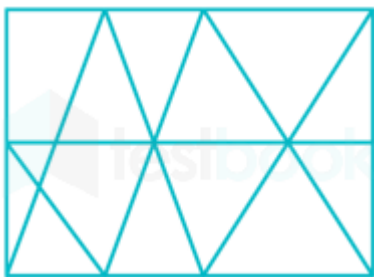


- 1.
- 2.



Correct Option - 4

Que. 56 How many straight lines are there in the following figures?



1. 13
2. 11
3. 12
4. 10

Correct Option - 2

Que. 57 10, 100, 200, 310, ?

1. 430
2. 420
3. 410
4. 400

Correct Option - 1

Que. 58 Select the correct combination of mathematical signs to sequentially replace the * signs and balance the given equation.

$$33 * 4 * 15 * 3 * 61 = 188$$

1. $+\times\div-$
2. $\times-\div+$
3. $+-\div\times$
4. $\div\times-+$

Correct Option - 2

Que. 59 **Direction:** Select the word that belongs to the given class of words.

Potato, Ginger, Carrot, ?

1. Cabbage
2. Brinjal
3. Radish
4. Tomato

Correct Option - 3

Que. 60 In a certain code language, if TAYLOR is coded as ATLYRO, then how is INSECT coded in that language?

1. NIESTC
2. TNESCI
3. JOTFDU
4. SNITCE

Correct Option - 1

Que. 61 A heater is marked 500 watt, 200 volts. The cost of using the heater for four hours at 15 paisa per unit is:

1. 90 paisa
2. 60 paisa
3. 30 paisa
4. 15 paisa

Correct Option - 3

Que. 62 A convex mirror has a focal length 'f' and it can produce an image that is $1/n^{\text{th}}$ the size of the object. What will be the distance of the object?

1. n/v
2. f/n
3. $f(n-1)$
4. $-f(n-1)$

Correct Option - 4

Que. 63 Which among the following does not possess kinetic energy?

1. A battery
2. A ball thrown upwards
3. A flying bird
4. A moving car



Correct Option - 1

Que. 64 An engine has an efficiency of $\frac{1}{6}$. When the temperature of sink is reduced by 62°C , its efficiency is doubled. Temperature of the source is:

1. 99°C
2. 37°C
3. 62°C
4. None of these

Correct Option - 1

Que. 65 A light ray incidents on a plane mirror with incident angle θ . What will be reflected angle and angle of deviation for this light ray respectively?

1. $\theta, 2\theta$
2. $2\theta, \theta$
3. $\theta, 180 - 2\theta$
4. $2\theta, 90 - \theta$

Correct Option - 3

Que. 66 SI unit of permittivity is _____

1. $\text{C}^2 \text{m}^2 \text{N}^{-1}$
2. $\text{C}^{-1} \text{m}^2 \text{N}^{-2}$
3. $\text{C}^2 \text{m}^2 \text{N}^2$
4. $\text{C}^2 \text{m}^{-2} \text{N}^{-1}$

Correct Option - 4

Que. 67 Which of the following is necessary in defining the Hooke's law for a solid?

1. Strain
2. Elastic limit
3. Stress
4. Yield point

Correct Option - 2

Que. 68 What is the dimensional formula of density?

1. ML^{-3}T
2. ML^{-3}T^0
3. ML^3T



4. $ML^{-2}T$

Correct Option - 2

Que. 69 A galvanometer is used to _____

1. detect the direction of light
2. detect the direction of current
3. detect the direction of magnetic induction
4. detect the direction of sound

Correct Option - 2

Que. 70 A man standing on a revolving platform spreading his hands outward. Then:

1. angular velocity increase
2. angular velocity decrease
3. angular momentum increase
4. angular momentum is zero

Correct Option - 2

Que. 71 A charge Q is placed at the centre of a cube. Find the flux of the electric field through the six surfaces of the cube.

1. $Q/6\epsilon_0$
2. $6Q/\epsilon_0$
3. Q/ϵ_0
4. $5Q/6\epsilon_0$

Correct Option - 3

Que. 72 Davison and Germer experiments show that the electron has a behavior

1. like particle
2. like wave
3. similar to both particle and wave
4. none of these

Correct Option - 2

Que. 73 If the mass of an object is 60 kgs, what will be its weight on the moon? (N = Newton)

1. 60N
2. 600N
3. 100N

4. 10N

Correct Option - 3

Que. 74 The energy radiated by a black body is directly proportional to

1. T^2
2. T^{-2}
3. T^4
4. T

Correct Option - 3

Que. 75 The intensity of electric field at any point on the surface of a charged conductor is

1. zero
2. perpendicular to surface
3. tangential to surface
4. infinite

Correct Option - 2

Que. 76 Surface tension takes place due to

1. Only cohesive force
2. Only adhesive force
3. Neither cohesive force nor adhesive forces
4. Both cohesive force and adhesive force

Correct Option - 1

Que. 77 Which of the following is correct regarding eddy currents in the coil?

1. Eddy currents flow in straight lines, like a wire.
2. Eddy current helps in generating electrical energy.
3. By making use of a laminated core, eddy currents are increased.
4. Eddy currents convert useful energy into heat and waste it.

Correct Option - 4

Que. 78 A body starts from rest and travels for five seconds to make a displacement of 25 m. If it has travelled the distance with uniform acceleration a then a is:

1. 3 m/s^2
2. 4 m/s^2
3. 2 m/s^2

4. None of these

Correct Option - 3

Que. 79 Which one of the following is NOT the unit of energy?

1. Joule
2. Watt-hr
3. Newton-metre
4. kg-metre/sec^2

Correct Option - 4

Que. 80 The force between a neutron and a proton inside the nucleus is :

1. Only nuclear attractive
2. Only coulomb force
3. Both of the above (A) and (B)
4. None of these

Correct Option - 1

Que. 81 The number of photoelectrons emitted per unit time per unit area from the metal surface depend on the:

1. Frequency of the incident light
2. Intensity of the incident light
3. Both 1 and 2
4. None of these

Correct Option - 2

Que. 82 While looking at an image formed by a convex lens (one half of the lens is covered with a black paper), which one of the following will happen to the image?

1. Half of the image will be visible
2. Intensity of the image will be diminished
3. Image will be inverted now
4. One can see image of smaller size

Correct Option - 2

Que. 83 A stone is thrown upward with a speed of u , find maximum height it can get with this speed. (given g is the gravitational acceleration)

1. $\frac{u^2}{2g}$
2. $\frac{2u^2}{g}$

3. $\frac{u}{g}$
4. $\frac{u^2}{g}$

Correct Option - 1

Que. 84 A force F is given by $F = at + bt^2$, where t is time. What are the dimensions of a and b ?

1. MLT^{-1} and MLT^0
2. MLT^{-3} and MLT^{-4}
3. MLT^{-4} and MLT^1
4. None of these

Correct Option - 2

Que. 85 If the linear momentum of a body is increased by 50%, the increase in kinetic energy will be-

1. 50%
2. 75%
3. 100%
4. 125%

Correct Option - 4

Que. 86 If $f(x) = x^2 - x^{-2}$, then $f\left(\frac{1}{x}\right)$ is equal to

1. $f(x)$
2. $-f(x)$
3. $f\left(\frac{1}{x}\right)$
4. $[f(x)]^2$

Correct Option - 2

Que. 87 The perpendicular distance of the point $A(3, 4, 7)$ from plane $2x + y = 0$ is .

1. $\sqrt{5}$
2. $\sqrt{2}$
3. $2\sqrt{2}$
4. $2\sqrt{5}$

Correct Option - 4

Que. 88 If ${}^nC_r + {}^nC_{r+1} = {}^{n+1}C_x$, then $x =$

1. $2r + 1$
2. r

3. $r + 1$
4. $2r$

Correct Option - 3

Que. 89 If $a + b + c = 0$, and $|a| = 3$, $|b| = 5$, $|c| = 7$, then what is the angle between a and b ?

1. $-\pi$
2. 60°
3. π
4. 120°

Correct Option - 2

Que. 90 What is $\lim_{x \rightarrow 0} \frac{5^x - 1}{x}$ equal to?

1. $\log_e 5$
2. $\log_5 e$
3. 5
4. 1

Correct Option - 1

Que. 91 Find the domain of $f(x) = \cos^{-1}(x^2 - 3)$.

1. $[-1, 1]$
2. $[-3, 3]$
3. $[-\sqrt{2}, -2] \cup [\sqrt{2}, 2]$
4. $(-\sqrt{2}, -2) \cup (\sqrt{2}, 2)$

Correct Option - 3

Que. 92 a and a^2 are the roots of the equation $x^2 - kx + p = 0$. What is the ratio of k to p ?

1. $(1 + a)/a^2$
2. $(1 - a)/a^2$
3. $a^2/(1 + a)$
4. $a^2/(1 - a)$

Correct Option - 1

Que. 93 If $\tan A = \frac{4}{3}$, $0 \leq A \leq 90^\circ$, then find the value of $\sin A$.

1. $\frac{3}{5}$
2. 1

3. $\frac{3}{4}$
4. $\frac{4}{5}$

Correct Option - 4

Que. 94 $\int_0^{\pi/3} \sqrt{1 + \sin 2x} \, dx$

1. $\frac{\sqrt{3}+1}{2}$
2. $\frac{\sqrt{3}-1}{2}$
3. $\frac{\sqrt{3}}{2}$
4. 1

Correct Option - 1

Que. 95 Solve: $\frac{dy}{dx} = e^{x-y}$

1. $e^y = e^x + C$
2. $e^{-y} = e^{-x} + C$
3. $ye^y = xe^x + C$
4. $-ye^{-y} = e^x + C$

Correct Option - 1

Que. 96 If $P = \{1, 3, 5\}$ and $Q = \{2, 4, 6, 8\}$, then $P \cap Q$ is:

1. $\{1, 2, 3, 4, 5, 6, 8\}$
2. $\{1, 2, 3, 4, 5, 6, 7, 8\}$
3. ϕ
4. $\{8\}$

Correct Option - 3

Que. 97 If $\sin 2A = 2 \sin A$, then $A = ?$

1. 0°
2. 60°
3. 30°
4. 90°

Correct Option - 1

Que. 98 Find the mode of the given data:

3, 5, 8, 7, 6, 2, 4, 6, 4, 9, 5, 3, 4, 2

1. 5
2. 6
3. 4
4. 3

Correct Option - 3

Que. 99 Evaluate: $\int \sec^n x \tan x \, dx$

1. $\frac{1}{n} \sec^{n-1} x + C$
2. $\sec^n x + C$
3. $\frac{1}{n} \tan^n x + C$
4. $\frac{1}{n} \sec^n x + C$

Correct Option - 4

Que. 100 $\int \frac{e^{\tan^{-1} x}}{1+x^2} dx = ?$

1. $e^{\tan^{-1} x} + c$
2. $e^{-\tan^{-1} x} + c$
3. $e^{-\tan^{-1} x}$
4. $e^{\tan x} + c$

Correct Option - 1

Que. 101 If $x + y = 20$ and $P = xy$, then what is the maximum value of P ?

1. 100
2. 96
3. 84
4. 50

Correct Option - 1

Que. 102 In $n(A) = 20$, $n(B) = 35$ and $n(A \cup B) = 45$, then $n(A \cap B)$ equals

1. 10
2. 15
3. 0
4. None of these

Correct Option - 1

Que. 103

The value of the determinant $\begin{vmatrix} 1 & x & y+z \\ 1 & y & z+x \\ 1 & z & x+y \end{vmatrix}$ is:

1. xyx
2. $x + y + z$
3. 1
4. 0

Correct Option - 4

Que. 104 What is the range of the function $f(x) = 1 - \sin x$ defined on entire real line?

1. $(0, 2)$
2. $[0, 2]$
3. $(-1, 1)$
4. $[-1, 1]$

Correct Option - 2

Que. 105 The slope of the line perpendicular to the line passing through the points $(3, 2)$ and $(1, -1)$ is:

1. $-\frac{2}{3}$
2. $\frac{2}{3}$
3. $\frac{3}{2}$
4. $-\frac{3}{2}$

Correct Option - 1

Que. 106 Represent the complex number $Z = -2 - i2\sqrt{3}$ in the polar form.

1. $4 \left(\cos\left(-\frac{\pi}{3}\right) + i \sin\left(-\frac{\pi}{3}\right) \right)$
2. $4 \left(\cos\left(\frac{2\pi}{3}\right) - i \sin\left(\frac{2\pi}{3}\right) \right)$
3. $4 \left(\cos\left(\frac{2\pi}{3}\right) + i \sin\left(\frac{2\pi}{3}\right) \right)$
4. $4 \left(\cos\left(\frac{\pi}{3}\right) - i \sin\left(-\frac{2\pi}{3}\right) \right)$

Correct Option - 2

Que. 107 The domain of the function $f(x) = \sqrt{x-1} + \sqrt{6-x}$ is

1. $[1, \infty)$
2. $(-\infty, 6)$
3. $[1, 6]$
4. None of these

Correct Option - 3

Que. 108 If $f(x) = \log \sqrt{x}$, find derivative of $f(x)$

1. $\frac{1}{2x}$
2. $\frac{1}{x}$
3. $\frac{1}{\sqrt{x}}$
4. $\frac{2}{x}$

Correct Option - 1

Que. 109 Find the eccentricity of the conic $25x^2 - 4y^2 = 100$.

1. 5
2. $\frac{5}{2}$
3. $\frac{\sqrt{29}}{2}$
4. $\frac{\sqrt{21}}{2}$

Correct Option - 3

Que. 110 The solution of $\frac{dx}{dt} = 3x + 8$ will be

1. $x = \frac{1}{3}e^{(t+c)} - \frac{3}{8}$
2. $x = \frac{1}{3}e^{3(t+c)} - \frac{8}{3}$
3. $x = \frac{1}{3}e^{(t+c)} + \frac{3}{8}$
4. $x = \frac{1}{3}e^{(t+c)} + \frac{8}{3}$

Correct Option - 2

