Competishun

52/6, Opposite Metro Mas Hospital, Shipra Path, Mansarovar

Date: 22/04/2024

Time: 3 hours **Max. Marks:** 300

PRAVEEN-2 (24-25)_MCT-1

Physics

Single Choice Question

Q1 A particle is moving with a velocity $\vec{v} = K(y\hat{i} + x\hat{j})$, where K is a constant. The general equation for its path is

a) $y^2 = x$ + constant **b)** $y = x^2$ + constant **c)** $y^2 = x^2$ + constant **d)** xy = constant

Q2 A spaceship in space sweeps stationary interplanetary dust. As a result, its mass increases at a rate $\frac{dM(t)}{dt} = bv^2(t)$, where v(t) is its instantaneous velocity. The instantaneous acceleration of the satellite is

a) $-bv^3(t)$ **b)** $-\frac{2bv^3}{M(t)}$ **c)** $-\frac{bv^3}{M(t)}$ **d)** $-\frac{bv^3}{2M(t)}$

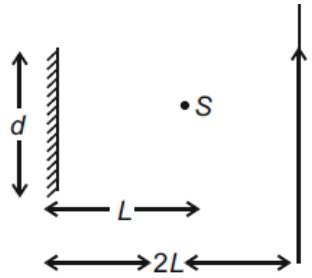
Q3 The relation between time t and distance x for a moving body is given as $t = mx^2 + nx$, where m and n are constants. The retardation of the motion is : (when v stands for velocity)

a) $2\,mv^3$ **b)** $2\,mnv^3$ **c)** $2\,nv^3$ **d)** $2n^2v^3$

Q4 A vehicle travels 4 km with speed of 3 km/h and another 4 km with speed of 5 km/h, then its average speed is :

a) 4.25 km/h **b)** 3.50 km/h **c)** 4.00 km/h **d)** 3.75 km/h

Q5 A point source of light, S is placed at a distance L in front of the centre of plane mirror of width d which is hanging vertically on a wall. A man walks in front of the mirror along a line parallel to the mirror, at a distance 2L as shown below. The distance over which the man can see the image of the light source in the mirror is

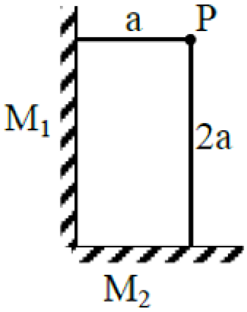


a) $\frac{d}{2}$ **b)** 3d **c)** 2d **d)** d

Q6 A body is projected vertically downwards from A, the top of the tower reaches the ground in t_1 seconds. If it is projected upwards with same velocity it reaches the ground in t_2 seconds. At what time it will reach the ground if it is dropped from A.

a) $\sqrt{t_1^3 / t_2}$ b) $\sqrt{t_2^3 / t_1}$ c) $\sqrt{t_1 t_2}$ d) $t_1 t_2$

Q7 Two plane mirrors M_1 and M_2 are at right angle to each other shown. A point source 'P' is placed at 'a' and '2a' meter away from M_1 and M_2 respectively. The shortest distance between the images thus formed is : (Take $\sqrt{5}$ = 2.3)



a) 3a b) 2 a c) 2.3 a d) $2\sqrt{10}\,a$

Q8 Two stones are projected simultaneously from a tower at different angles of projection with same speed 'u'. The distance between two stones is increasing at constant rate 'u'. Then the angle between the initial velocity vectors of the two stones is :

a) 30° b) 60° c) 90° d) 45°

Q9 Two trains 'A' and 'B' of length 'l' and '4l' are travelling into a tunnel of length 'L' in parallel tracks from opposite directions with velocities 108 km/h and 72 km/h, respectively. If train 'A' takes 35s less time than train 'B' to cross the tunnel then, length 'L' of tunnel is : (Given L = 60 l)

a) 1200 m b) 2700 m c) 1800 m d) 900 m

Q10 A person's eye is at a height of 1.5 m. He stands infront of a 0.3m long plane mirror which is 0.8 m above the ground. The length of the image he sees of himself is:

a) 1.5m b) 1.0m c) 0.8m d) 0.6m

Q11 If the distance between object and its two times magnified virtual image produced by a curved mirror is 15 cm, the focal length of the mirror must be :

a) 15 cm b) – 12 cm c) – 10 cm d) 10/3 cm

Q12 A ball is rolled off the edge of a horizontal table at a speed of 4 m/s. It hits the ground after 0.4 sec. Which statement given bellow is true ?

a) It hits the ground at a horizontal distance 1.6 m from the edge of the table

b) The speed with which it hits the ground is 4.0 m/s

c) Height of the table is 0.9 m

d) It hits the ground at an angle of 60° to the horizontal

Q13 Train A and train B are running on parallel tracks in the opposite directions with speeds of 36 km/hour and 72 km/hour, respectively. A person is walking in train A in the direction opposite to its motion with a speed of 1.8 km/ hour. Speed (in ms^{-1}) of this person as observed from train B will be close to : (take the distance between the tracks as negligible)

a) 30.5 ms^{-1} **b)** 29.5 ms^{-1} **c)** 31.5 ms^{-1} **d)** 28.5 ms^{-1}

Q14 A bullet of mass 20 g has an initial speed of $1ms^{-1}$, just before it starts penetrating a mud wall of thickness 20 cm. If the wall offers a mean resistance of 2.5×10^{-2} N, the speed of the bullet after emerging from the other side of the wall is close to :

a) 0.4 ms^{-1} **b)** 0.7 ms^{-1} **c)** 0.3 ms^{-1} **d)** 0.1 ms^{-1}

Q15 To a stationary man, rain appears to be falling at an angle 30° with the vertical. As he starts moving with a speed of 0.5 m/s he finds that the rain is falling vertically. Then the speed of rain w.r.t. the moving man is :

a) 0.5 m/s **b)** 1 m/s **c)** $0.5\sqrt{3}$ m/s **d)** $\sqrt{3}$ m/s

Q16 A particle is moving in x–y–plane at 2 m/s along x–axis. 2 seconds later, its velocity is 4 m/s in a direction making 60° with positive x–axis. Find average acceleration (in m/s^2) for this period of motion.

a) $\sqrt{5}$ m/s^2, along y–axis **b)** $\sqrt{3}$ m/s^2, along y–axis

c) $\sqrt{5}$ m/s^2, along at 60° with positive x–axis

d) $3m/s^2$, at 60° with positive x–axis.

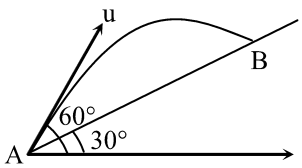
Q17 Raindrops are falling vertically with a velocity 10m/s. To a cyclist moving on a straight road the rain drops appear to be coming with a velocity of 20m/s. The velocity of cyclist is :-

a) 10m/s **b)** $10\sqrt{3}$ m/s **c)** 20 m/s **d)** $20\sqrt{3}$ m/s

Q18 A body is thrown up in a lift with a velocity u relative to the lift and the time of flight is found to be 't'. The acceleration with which the lift is moving up will be-

a) $\frac{u-gt}{t}$ **b)** $\frac{u+gt}{t}$ **c)** $\frac{2u-gt}{t}$ **d)** $\frac{2u+gt}{t}$

Q19 Time taken by the projectile to reach A to B is t. Then the distance AB is equal to –



a) $\frac{ut}{2}$ **b)** $\frac{\sqrt{3}ut}{2}$ **c)** $\sqrt{3}ut$ **d)** 2 ut

Q20 When a number of objects, all of different mass, are dropped, the acceleration of each objects –

a) is constant and same for each object if air resistance is neglected

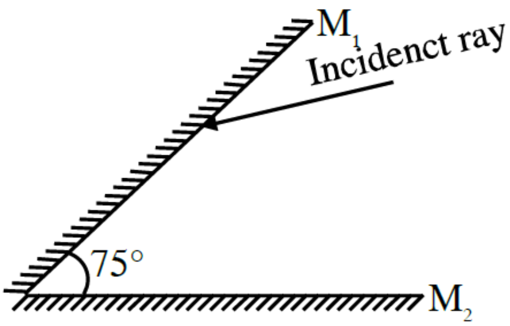
b) is not constant and different for each object if air resistance is taken into account

c) is constant and different for each object if air resistance is neglected

d) is constant and same for each object if air resistance is taken into account

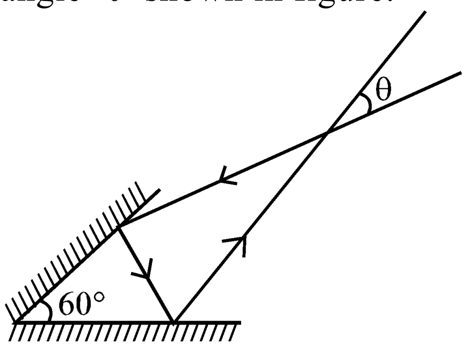
Numerical

Q21 A light ray is incident, at an incident angle θ_1, on the system of two plane mirrors M_1 and M_2 having an inclination angle 75° between them (as shown in figure). After reflecting from mirror M_1 it gets reflected back by the mirror M_2 with an angle of reflection 30°. The total deviation of the ray will be .... degree.



Q22 A projectile is thrown with speed u making angle θ with horizontal at t =0. It just crosses the two points at equal height at time t = 1 s and t = 3sec respectively. Calculate maximum height (in m) attained by it. ($g=10 m/s^2$)

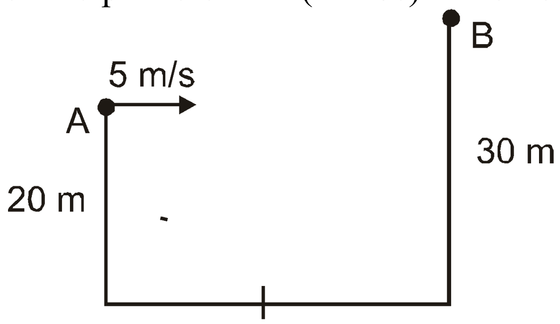
Q23 A light ray is incident on a plane mirror, which after getting reflected strikes another plane mirror, as shown in figure. The angle between the two mirrors is 60º. Find the angle 'θ' shown in figure.



Q24 Two particles A and B move in x-y plane such that both have constant acceleration $\vec{a}_A = -10\,\hat{j}$ m/s² and $\vec{a}_B = -5\,\hat{j}$m/s² respectively. The velocities of particles at t = 0 are $\vec{u}_A = -5\,\hat{i} + 20\hat{j}$ m/s and $\vec{u}_B = 2.5\,\hat{i} + 10\hat{j}$ m/s. At time t = 0, particle A is at origin and particle B is at point having coordinates (5 meters, 0). Find the instant of time in seconds at which angle between velocity of A and velocity of B is 180°.

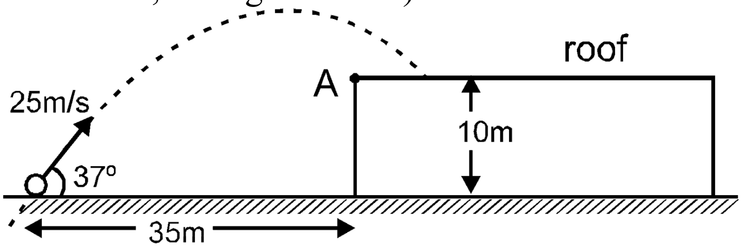
Q25 An ant starts from point 'O' and moves 50m due east, then it turns clockwise and covers 50m along 30º south of east, then again turns clockwise by 30° and covers 50m and deviates clockwise by 30º each time after it covers a distance of 50m until it returns to its original position. If the total distance traveled (in meters) by ant to reach the initial point 'O' is 100 X. Find the value of X.

Q26 A particle in projected from point A horizontally with speed 5 m/s from height 20 m. At the same time another particle from B at a height 30 m is projected such that two meet on the ground at exactly midpoint between the two bases. There find the velocity of the particle at B (in m/s) in nearest integer. (Take g = 10 m/s^2)

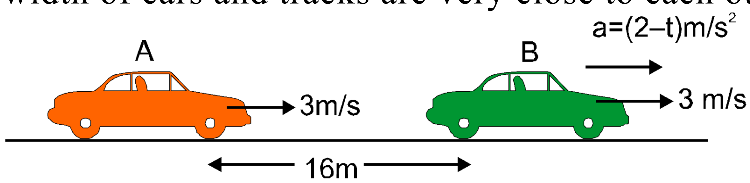


Q27 A stone is thrown from the top of a tower at an angle of 30º up with the horizontal with a velocity of 16 m/s. After 4 sec. of flight it strikes the ground. Let the height of tower is H.meter. Then the value of $\frac{H}{12}$ is: (g = 10 m/s)

Q28 A ball is at 35 m horizontal distance from the foot of 10m high building as shown in figure. The ball is projected with a velocity of 25 m/s at an angle of 37° with horizontal. At how much distance (in meters) from the corner point A, will the ball hit the roof ? (Assume that roof is sufficiently large so that ball lands on it. Neglect air resistance, take g=10 m/s^2)



Q29 Two cars A and B are moving on two horizontal parallel straight tracks. At t = 0, velocity of both the cars is 3m/s. Acceleration of car A is zero while car B is accelerating with variable acceleration of (2 – t) m/s^2 (where t is time). In first 6 sec., maximum separation between cars is $\frac{8x}{3}$ m then value of x is [neglect length and width of cars and tracks are very close to each other]



Q30 A car accelerates from rest at a constant rate of 2 m/s^2 for some time. Then, it retards at a constant rate of 4 m/s^2 and finally comes to rest. Car remains in motion for 3 seconds. If the maximum speed (in m/s) attained by the car during the motion is 'n' m/s, then find the value of 'n'.

Chemistry

Single Choice Question

Q31 The density of 3 molal solution of NaOH is 1.110 g ml^{-1}. The molarity of the solution is.

a) 2.97 **b)** 3.48 **c)** 2.18 **d)** 1.75

Q32 If the density of methanol is 0.80 kg L^{-1}. What is the volume needed for making 2.5 L of its 0.25 M solution ?

a) 26 ml **b)** 27.3 ml **c)** 25.0 ml **d)** 33.3 ml

Q33 Which of the following set of quantum numbers is possible?

a) $n = 0, \ell = 0, m_\ell = 1$ $m_s = +\frac{1}{2}$
b) $n = 1, \ell = 0, m_\ell = 0$ $m_s = -\frac{1}{2}$
c) $n = 1, \ell = 1, m_\ell = 0$ $m_s = +\frac{1}{2}$
d) $n = 3, \ell = 3, m_\ell = -3$ $m_s = +\frac{1}{2}$

Q34 A gaseous hydrocarbon gives 0.72 g of H_2O and 3.08 gm of CO_2 on combustion. The empirical formula of the hydrocarbon is :

a) C_6H_5 **b)** C_7H_8 **c)** C_2H_4 **d)** C_3H_4

Q35 Which of the following is independent of temperature?
(a) Molality (b) Molarity (c) Mole fraction (d) weight percentage

a) (a) and (b) **b)** (a), (b) and (c) **c)** (a), (c) and (d) **d)** (b), (c) and (d)

Q36 1 gm of Mg is burnt with 0.56 g of O_2 in a closed vessel which reactant is left in excess and how much ?

a) Mg 0.16 gm **b)** O_2 , 0.16 gm **c)** Mg , 0.44 gm **d)** O_2 , 0.28 gm

Q37 Chlorophyll contains 2.70% of magnesium by weight. The number of magnesium atoms in 2 gm of chlorophyll is :

a) 1.35×10^{21} **b)** 2.86×10^{21} **c)** 3.35×10^{19} **d)** 6.023×10^{23}

Q38 The unbalanced equation for the reaction of P_4S_3 with nitrate in aqueous acidic medium is given below.

$$P_4S_3 + NO_3^- \rightarrow H_3PO_4 + SO_4^{2-} + NO$$

The number of mole of water required per mol of P_4S_3 is :

a) 18 **b)** 8/3 **c)** 8 **d)** none of these

Q39 Weight of ethylene can be burnt completely by the oxygen gas produced from complete decomposition of 49 gm $KClO_3$ is:

$$2KClO_3 \xrightarrow{\Delta} 2KCl + 3O_2$$

$$C_2H_4 + 3O_2 \xrightarrow{\Delta} 2CO_2 + 2H_2O$$

a) 11.2 g **b)** 5.6 g **c)** 2.8 g **d)** 22.4 g

Q40 The mass of CO_2 that must be mixed with 20 gm of oxygen such that 1L of a sample of the resulting mixture would contain equal number of molecules of each gas :

a) 13.75 gm **b)** 27.50 gm **c)** 41.25 gm **d)** 55 gm

Q41 500 mL, 0.2 M Na_2SO_4 solution is mixed with 100 mL, 17.1% (w/v) $Al_2(SO_4)_3$ solution and resulting solution is diluted to 5 times. Find the molarity of SO_4^{-2} ions in the final solution.
[Atomic mass of A1 = 27, S = 32 , Na = 23]

a) $\frac{1}{12}$ M **b)** $\frac{5}{12}$ M **c)** $\frac{7}{5}$ M **d)** $\frac{12}{5}$ M

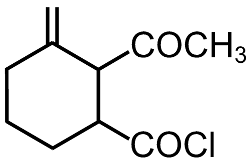
Q42 When the equation
$Sn^{2+}(aq) + IO_3^-(aq) + H^+(aq) \longrightarrow Sn^{4+}(aq) + I_2(aq) + H_2O(l)$
is balanced, what is the $Sn^{2+}(aq)/IO_3^-(aq)$ mole ratio ?

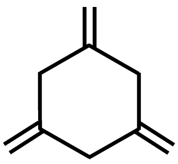
a) $\frac{1}{1}$ **b)** $\frac{2}{1}$ **c)** $\frac{1}{2}$ **d)** $\frac{5}{2}$

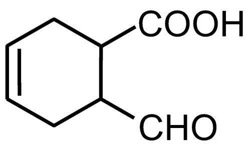
Q43 When 400 g of a 20% solution by weight was cooled 50 gm of solute precipitated. The percentage concentration of remaining solution is :

a) 8.57% **b)** 9.5% **c)** 15% **d)** 12.25%

Q44 Which of the following compounds do not have degree of unsaturation equal to benzene ?

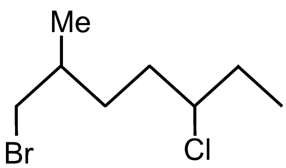
a) 

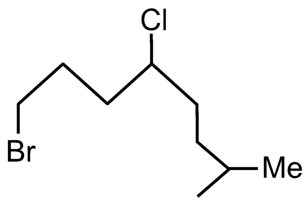
b) 

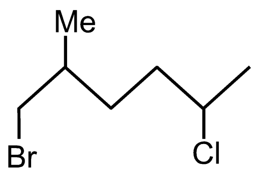
c) 

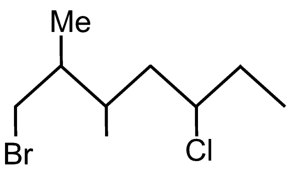
d) 

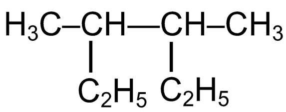
Q45 Which is the correct structure for 1-Bromo-5-chloro-2-methylheptane?

a) 

b) 

c) 

d) 

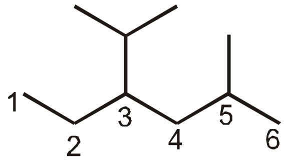
Q46 The correct IUPAC name for  is

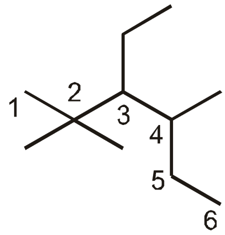
a) 2-ethyl methylpentane **b)** 3,4-dimethylhexane **c)** 2,3-diethylbutane
d) 2,3-dimethylbutane

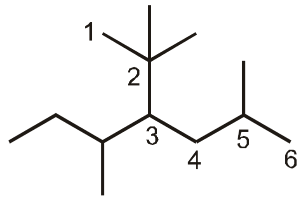
Q47 C_5H_{12} has a symmetrical structure with one quaternary carbon. Its name is :

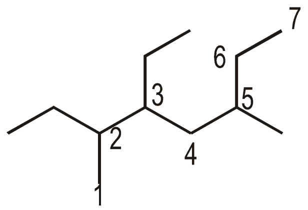
a) n-pentane **b)** 2-methylbutane **c)** 2, 2-dimethylpropane **d)** 1-methylbutane

Q48 In which of the following option correct parent chain has been selected with correct numbering :

a)


b)


c)


d)


Q49 A primary amine has amino(-NH_2) group attached to :

a) A primary carbon atom only
b) A secondary carbon atom only
c) A tertiary carbon atom only
d) Primary, secondary, tertiary carbon atoms

Q50 Which of the following compound have same number of carbons in their parent carbon chain

a) n-propyl alcohol & isopropyl alcohol
b) n-butyl alcohol & isobutyl alcohol
c) n-butyl alcohol & ter.butyl alcohol
d) All of these

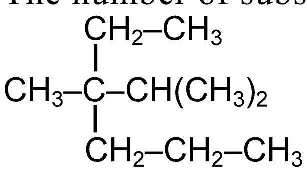
Numerical

Q51 The subshell that arise after 'f' subshell is called 'g' subshell. What is the total number of orbitals in the orbit in which 'g' subshell first occur ?

Q52 20 mL of 0.2M $Al_2(SO_4)_3$ is mixed with 30 mL of 0.6M $BaCl_2$. How many milli moles of $BaSO_4$ are formed in solution ?
$BaCl_2 + Al_2(SO_4)_3 \longrightarrow BaSO_4 + AlCl_3$

Q53 $FeSO_4$ undergoes decomposition as $2FeSO_4(s) \longrightarrow Fe_2O_3(s) + SO_2(g) + SO_3(g)$
At high temperature, If (7.6 gm) $FeSO_4$ is taken then :
The average molar mass of the gaseous mixture (which is obtain after reaction) :

Q54 Give the value of degree of unsaturation for given compound :
$C_{12}H_{17}ClF_2N_2O_4$

Q55 The number of substituents are present on parent chain of given compound


Q56 The sum of oxidation state of the metals in $Fe(CO)_5$, VO^{2+} and WO_3 is _______

Q57 A protein 'A' contains 0.30% of glycine (molecular weight 75). The minimum molar mass of the protein 'A' is________ $\times 10^3$ g mol^{-1} [nearest integer]

Q58 The molarity of the solution prepared by dissolving 6.3 g of oxalic acid ($H_2C_2O_4.2H_2O$) in 250 mL of water in mol L^{-1} is x $\times 10^{-2}$. The value of x is ________. (Nearest integer)
[Atomic mass : H : 1.0, C : 12.0, O : 16.0]

Q59 Number of hydrogen atoms per molecule of a hydrocarbon A having 85.8% carbon is ________
(Given : Molar mass of A = 84 g mol^{-1})

Q60 When 800 mL of 0.5 M nitric acid is heated in a beaker, its volume is reduced to half and 11.5 g of nitric acid is evaporated. The molarity of the remaining nitric acid solution is x $\times 10^{-2}$ M. (Nearest Integer)
(Molar mass of nitric acid is 63 g mol^{-1})

Mathematics

Single Choice Question

Q61 Let A = {x ∈ R : |x +1 | < 2} and B = {x ∈ R : | x – 1 | ≥ 2}. Then which one of the following statements is **NOT** true?

a) A – B = (–1,1) **b)** B – A = R – (–3,1) **c)** A ∩ B = (–3,-1] **d)** A ∪ B = R –[1,3)

Q62 If $\log_{12}27 = a$, then $\log_6 16$ is equal to

a) $2\left(\frac{3-a}{3+a}\right)$ **b)** $3\left(\frac{3-a}{3+a}\right)$ **c)** $4\left(\frac{3-a}{3+a}\right)$ **d)** $5\left(\frac{3-a}{3+a}\right)$

Q63 If $\log_7 2 = k$ then $\log_{49}28$ is equal to-

a) $\frac{1+2k}{4}$ **b)** $\frac{1+2k}{2}$ **c)** $\frac{1+2k}{3}$ **d)** None of these

Q64 The equation $\frac{1}{2}\log(x^2+2x) - \log\sqrt{x+2} = 0$ has the solution

a) x = 1 **b)** x = –2 **c)** x = –2, 1 **d)** None

Q65 $\log_4 18$ is-

a) rational **b)** irrational **c)** prime **d)** composite

Q66 Solution of the in equation $\log_{0.1}\left(log_2\frac{x^2+1}{|x-1|}\right) < 0$ contains the interval

a) $(1, \infty)$ **b)** $(-\infty, 1)$ **c)** $[1, \infty)$ **d)** none of these

Q67 The solution set of the inequality $\log_{1/3}(x^2+x+1) + 1 > 0$ is -

a) $(-\infty, -2) \cup (1, +\infty)$ **b)** $[-1, 2]$ **c)** $(-2, 1)$ **d)** $(-\infty, +\infty)$

Q68 The solution set of the inequality $\log_{(\cos x)^2}(3-2x) < \log_{(\cos x)^2}(2x-1)$ is -

a) $\left(\frac{1}{2}, 1\right)$ **b)** $(-\infty, 1)$ **c)** $\left(\frac{1}{2}, 3\right)$ **d)** $(1, \infty) - \sqrt{2n\pi}\ \forall n \in N$

Q69 Solution set of inequality $\frac{(e^x-1)(2x-3)(x^2+x+2)}{(sinx-2)(x+1)x} \le 0$ is

a) $\left[\frac{3}{2}, \infty\right)$ **b)** $(-\infty, -1) \cup \left[\frac{3}{2}, \infty\right)$ **c)** $(-1, 0) \cup \left[\frac{3}{2}, \infty\right)$ **d)** $R - \{0, -1\}$

Q70 If 3 < | x | < 6, then x belongs to :

a) $(-6, -3) \cup (3, 6)$ **b)** $(-6, 6)$ **c)** $(-3, -3) \cup (3, 6)$ **d)** none of these

Q71 A survey shows that 73% of the persons working in an office like coffee, whereas 65% like tea. If x denotes the percentage of them, who like both coffee and tea, then x cannot be :

a) 63 **b)** 36 **c)** 38 **d)** 54

Q72 Set A has m elements and Set B has n elements. If the total number of subsets of A is 112 more than the total number of subsets of B, then the value of m·n is ________.

a) 25 **b)** 26 **c)** 27 **d)** 28

Q73 Let S = {1, 2, 3, ... , 100}. The number of non-empty subsets A of S such that the product of elements in A is even is

a) $2^{100} - 1$ **b)** $2^{50} + 1$ **c)** $2^{50}(2^{50} - 1)$ **d)** $2^{50} - 1$

Q74 Two newspapers A and B are published in a city. It is known that 25% of the city population reads A and 20% reads B while 8% reads both A and B. Further, 30% of those who read A but not B look into advertisements and 40% of those who read B but not A also look into advertisements, while 50% of those who read both A and B look into advertisements. Then the percentage of the population who look into advertisements is :

a) 13.9 **b)** 13 **c)** 12.8 **d)** 13.5

Q75 The value of $3+\cfrac{1}{4+\cfrac{1}{3+\cfrac{1}{4+\cfrac{1}{3+\infty}}}}$ is equal to

a) $1.5+\sqrt{3}$ **b)** $2+\sqrt{3}$ **c)** $3+2\sqrt{3}$ **d)** $4+\sqrt{3}$

Q76 If $A=\{x \in R : |x| < 2\}$ and $B=\{x \in R : |x-2| \geq 3\}$; then

a) A – B = [–1, 2] **b)** A ∪ B = R – (2, 5) **c)** B – A = R – (–2, 5)

d) A ∩ B = (–2, –1)

Q77 Set of all real values of 'a' such that f(x) = $\frac{(2a-1)x^2+2(a+1)x+(2a-1)}{x^2-2x+40}$ is always negative is

a) (–∞, 0) **b)** (0, ∞) **c)** (–∞, 1/2) **d)** None

Q78 The values of x for which $\frac{x^2-4x+3}{x^2+x+1} < 0$ is :

a) $x \in (-\infty, 1) \cup (3, \infty)$ **b)** $x \in (1, 3)$ **c)** $x > 3$ **d)** $x < 1$

Q79 The inequality $\sqrt{x+2} \geq x$ is satisfied if

a) $-2 \leq x \leq 2$ **b)** $-3 \leq x \leq 2$ **c)** $-4 \leq x \leq 2$ **d)** None of these

Q80 If a > 1 then the roots of the equation $(1-a)x^2 + 3ax - 1 = 0$ are -

a) one positive and one negative **b)** both negative **c)** both positive

d) both non real complex

Numerical

Q81 If no. of zeroes after decimal in $(0.15)^{20}$ is ab. Find b – a. (assume log 2 = 0.3010, log 3 = 0.4771)

Q82 If a = $\log_{12} 18$ & b = $\log_{24} 54$ then find the value of ab + 5 (a – b)

Q83 The number of solutions of the equation $\log_4(x-1) = \log_2(x-3)$ is

Q84 Let X = {n ∈ N : 1 ≤ n ≤ 50}. If A = {n ∈ X : n is a multiple of 2} and B = {n ∈ X : n is a multiple of 7}, then the number of elements in the smallest subset of X containing both A and B is ________.

Q85 The number of integral solutions x of $\log_{\left(x+\frac{7}{2}\right)}\left(\frac{x-7}{2x-3}\right)^2 \geq 0$ is

Q86 If A = $\log_2 \log_2 \log_4 256 + 2\log_{\sqrt{2}} 2$ then A is equal to

Q87 Number of integral solutions of $\frac{x+2}{x^2+1} > \frac{1}{2}$ is:

Q88 The number of real roots of the equation $x|x|-5|x+2|+6=0$, is

Q89 The number of real roots of the equation $\sqrt{x^2-4x+3}+\sqrt{x^2-9}=\sqrt{4x^2-14x+6}$ is :

Q90 A survey shows that 63% of the people in a city read newspaper A whereas 76% read newspaper B. If x% of the people read both the newspapers, then a possible value of x can be :

Answer Key

Que.	1	2	3	4	5	6	7	8	9	10
Ans.	**C**	**C**	**A**	**D**	**B**	**C**	**B**	**B**	**C**	**D**
Que.	11	12	13	14	15	16	17	18	19	20
Ans.	**C**	**A**	**B**	**B**	**C**	**B**	**B**	**C**	**A**	**A**
Que.	21	22	23	24	25	26	27	28	29	30
Ans.	**210**	**20**	**60**	**2**	**6**	**7**	**4**	**5**	**8**	**4**
Que.	31	32	33	34	35	36	37	38	39	40
Ans.	**A**	**C**	**B**	**B**	**C**	**A**	**A**	**B**	**B**	**B**
Que.	41	42	43	44	45	46	47	48	49	50
Ans.	**A**	**D**	**A**	**D**	**A**	**B**	**C**	**B**	**D**	**A**
Que.	51	52	53	54	55	56	57	58	59	60
Ans.	**25**	**12**	**72**	**4**	**3**	**10**	**25**	**20**	**12**	**54**
Que.	61	62	63	64	65	66	67	68	69	70
Ans.	**B**	**C**	**B**	**A**	**B**	**A**	**C**	**A**	**B**	**A**
Que.	71	72	73	74	75	76	77	78	79	80
Ans.	**B**	**D**	**C**	**A**	**A**	**C**	**A**	**B**	**A**	**C**
Que.	81	82	83	84	85	86	87	88	89	90
Ans.	**5**	**1**	**1**	**29**	**6**	**5**	**3**	**3**	**1**	**55**