Option 1 ID : **5885523230**
Option 2 ID : **5885523229**
Option 3 ID : **5885523231**
Option 4 ID : **5885523232**
Status : **Answered**
Chosen Option : **1**

Q.49 **9 gram anhydrous oxalic acid (Mol. Wt = 90) was dissolved in 9.9 moles of water. If vapour pressure of pure water is P_1^0, the vapour pressure of solution is**

Ans
✔ 1. 0.99 P_1^0
✗ 2. 0.1 P_1^0
✗ 3. 0.90 P_1^0
✗ 4. 1.1 P_1^0

Question Type : **MCQ**
Question ID : **588552840**
Option 1 ID : **5885523357**
Option 2 ID : **5885523359**
Option 3 ID : **5885523358**
Option 4 ID : **5885523360**
Status : **Answered**
Chosen Option : **1**

Q.50 **Which of the following sets of solutions of urea (mol. mass. 60 g mol^{-1}) and sucrose (mol. mass. 342 g mol^{-1}) is isotonic ?**

Ans
✗ 1. 9.1 gL^{-1} urea and 6.0 gL^{-1} sucrose
✗ 2. 3.0 gL^{-1} urea and 3.0 gL^{-1} sucrose
✗ 3. 6.0 gL^{-1} urea and 9.0 gL^{-1} sucrose
✔ 4. 3.0 gL^{-1} urea and 17.1 gL^{-1} sucrose

Question Type : **MCQ**
Question ID : **588552846**
Option 1 ID : **5885523384**
Option 2 ID : **5885523381**
Option 3 ID : **5885523382**
Option 4 ID : **5885523383**
Status : **Answered**
Chosen Option : **4**

Section : **Mathematics**

Q.1 **In a bionomial distribution, mean is 18 and variance is 12 then p = ...**

Ans
✗ 1. $\frac{2}{3}$

✔ 2. $\frac{1}{3}$

✘ 3. $\frac{3}{4}$

✘ 4. $\frac{1}{2}$

Question Type : **MCQ**
Question ID : **588552864**
Option 1 ID : **5885523454**
Option 2 ID : **5885523453**
Option 3 ID : **5885523456**
Option 4 ID : **5885523455**
Status : **Answered**
Chosen Option : **2**

Q.2 If lines $\frac{x-1}{2} = \frac{y+1}{3} = \frac{z-1}{4}$ and $\frac{x-3}{1} = \frac{y-\lambda}{2} = \frac{z}{1}$ intersect each other, then $\lambda =$ .....

Ans

✘ 1. $\frac{7}{2}$

✘ 2. $\frac{3}{2}$

✔ 3. $\frac{9}{2}$

4. $\frac{5}{2}$

Question Type : **MCQ**
Question ID : **588552882**
Option 1 ID : **5885523528**
Option 2 ID : **5885523526**
Option 3 ID : **5885523527**
Option 4 ID : **5885523525**
Status : **Answered**
Chosen Option : **3**

Q.3 The particular solution of the differential equation $\log(\frac{dy}{dx}) = x$, when $x = 0, y = 1$ is .....

Ans

1. $y = e^x + 2$
2. $y = -e^x$
3. $y = -e^x + 2$
4. $y = e^x$

Question Type : **MCQ**
Question ID : **588552865**
Option 1 ID : **5885523458**
Option 2 ID : **5885523457**
Option 3 ID : **5885523459**
Option 4 ID : **5885523460**
Status : **Answered**
Chosen Option : **4**

Q.4 The p.d.f of a random variable x is given by $f(x) = \frac{1}{4a}$, $0 < x < 4a$, $(a > 0)$

$= 0$, otherwise.

and $P\left(x < \frac{3a}{2}\right) = k\,P\left(x > \frac{5a}{2}\right)$ then k = ...

Ans

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

3. $\frac{1}{8}$

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

Question Type : **MCQ**
Question ID : **588552877**
Option 1 ID : **5885523505**
Option 2 ID : **5885523507**
Option 3 ID : **5885523508**
Option 4 ID : **5885523506**
Status : **Answered**
Chosen Option : **1**

Q.5

If the function $f(x) = \frac{(e^{kx}-1)tankx}{4x^2}$, $x \neq 0$

$= 16$, $x = 0$

Is continuous at $x = 0$, then $k =$ .....

Ans

1. $\pm\frac{1}{8}$

2. ± 4

3. ± 2

4. ± 8

Question Type : **MCQ**
Question ID : **588552893**
Option 1 ID : **5885523572**
Option 2 ID : **5885523569**
Option 3 ID : **5885523570**
Option 4 ID : **5885523571**
Status : **Answered**

Chosen Option : **4**

Q.6 The solution of the differential equation $ydx - xdy = xydx$ is ……

Ans

✗ 1. $x^2 = e^x y^2$

✓ 2. $x = ye^x$

✗ 3. $xy = e^x$

✗ 4. $x^2y^2 = logx$

Question Type : **MCQ**
Question ID : **588552890**
Option 1 ID : **5885523559**
Option 2 ID : **5885523560**
Option 3 ID : **5885523557**
Option 4 ID : **5885523558**
Status : **Answered**
Chosen Option : **2**

Q.7 The maximum value of z = 6x + 8y subject to x - y ≥ 0 , x + 3y ≤ 12 , x ≥ 0 , y ≥ 0 is …….

Ans

✓ 1. 72

✗ 2. 42

✗ 3. 96

✗ 4. 24

Question Type : **MCQ**
Question ID : **588552881**
Option 1 ID : **5885523524**
Option 2 ID : **5885523523**
Option 3 ID : **5885523522**
Option 4 ID : **5885523521**
Status : **Answered**
Chosen Option : **1**

Q.8

If $\sum_{r=1}^{n}(2r+1) = 440$, then n =……

Ans

✓ 1. 20

✗ 2. 22

✗ 3. 21

✗ 4. 19

Question Type : **MCQ**
Question ID : **588552899**
Option 1 ID : **5885523593**
Option 2 ID : **5885523594**
Option 3 ID : **5885523596**
Option 4 ID : **5885523595**
Status : **Answered**
Chosen Option : **1**

Q.9 If p and q are true and r and s are false statements, then which of the following is true?

Ans

✗ 1. $(q \wedge r) \vee (\sim p \wedge s)$

✗ 2. $(\sim p \rightarrow q) \leftrightarrow (r \wedge s)$

✓ 3. $(p \rightarrow q) \vee (r \leftrightarrow s)$

✗ 4. $(p \wedge \sim r) \wedge (\sim q \vee s)$

Question Type : **MCQ**
Question ID : **588552873**
Option 1 ID : **5885523492**
Option 2 ID : **5885523490**
Option 3 ID : **5885523491**
Option 4 ID : **5885523489**
Status : **Answered**
Chosen Option : **3**

Q.10 If the standard deviation of the random variable X is $\sqrt{3pq}$ and mean is $3p$ then $E(x^2)$ = ...

Ans

✗ 1. $3pq + 3q^2$

✓ 2. $3p\ (1 + 2p)$

✗ 3. $3pq + 3p^2$

✗ 4. $3q\ (1 + 2q)$

Question Type : **MCQ**
Question ID : **588552852**
Option 1 ID : **5885523407**
Option 2 ID : **5885523405**
Option 3 ID : **5885523406**
Option 4 ID : **5885523408**
Status : **Marked For Review**
Chosen Option : **3**

Q.11

1 If $f(x) = [x]$, where $[x]$ is the greatest integer not greater than x , then $f'(1^+) = \ldots\ldots$

Ans
- ✗ 1. 1
- ✗ 2. 2
- ✓ 3. 0
- ✗ 4. -1

Question Type : **MCQ**
Question ID : **588552867**
Option 1 ID : **5885523465**
Option 2 ID : **5885523468**
Option 3 ID : **5885523466**
Option 4 ID : **5885523467**
Status : **Answered**
Chosen Option : **3**

Q.12 If lines represented by $(1 + \sin^2\theta)\, x^2 + 2hxy + 2sin\theta\ y^2 = 0$, $\theta \in [0, 2\pi]$ are perpendicular to each other then $\theta = \ldots\ldots$

Ans
- ✗ 1. $\frac{\pi}{2}$
- ✗ 2. π
- ✓ 3. $\frac{3\pi}{2}$
- ✗ 4. $\frac{\pi}{6}$

Question Type : **MCQ**
Question ID : **588552858**
Option 1 ID : **5885523431**
Option 2 ID : **5885523429**
Option 3 ID : **5885523430**
Option 4 ID : **5885523432**
Status : **Answered**
Chosen Option : **3**

Q.13 If A = $\{ x \mid x \in N,\ x$ is a prime number less than 12 $\}$ and B = $\{ x \mid x \in N, x$ is a factor of 10 $\}$, then A ∩ B = ...

Ans
- ✗ 1. {2}
- ✓ 2. {2,5}
- ✗ 3. {2,5,10}
- ✗ 4. {1,2,5,10}

Question Type : **MCQ**
Question ID : **588552887**
Option 1 ID : **5885523545**
Option 2 ID : **5885523546**
Option 3 ID : **5885523547**
Option 4 ID : **5885523548**
Status : **Answered**
Chosen Option : **2**

Q.14 If R is the circumradius of ΔABC ,then A(ΔABC)= …….

Ans

✗ 1. $\frac{abc}{R}$

✓ 2. $\frac{abc}{4R}$

✗ 3. $\frac{abc}{3R}$

✗ 4. $\frac{abc}{2R}$

Question Type : **MCQ**
Question ID : **588552897**
Option 1 ID : **5885523585**
Option 2 ID : **5885523588**
Option 3 ID : **5885523587**
Option 4 ID : **5885523586**
Status : **Answered**
Chosen Option : **2**

Q.15 **If A,B,C and D are (3,7,4),(5,-2,3),(-4,5,6) and (1,2,3) respectively, then the volume of the parallelopiped with AB, AC and AD as the co-terminus edges, is ……. cubic units.**

Ans

✗ 1. 91

✗ 2. 94

✓ 3. 92

✗ 4. 93

Question Type : **MCQ**
Question ID : **588552895**
Option 1 ID : **5885523579**
Option 2 ID : **5885523580**
Option 3 ID : **5885523578**
Option 4 ID : **5885523577**
Status : **Answered**
Chosen Option : **3**

Q.16 If $(-\sqrt{2}, \sqrt{2})$ are cartesian co-ordinates of the point, then its polar co-ordinates are .....

Ans

✗ 1. $(1, \frac{4\pi}{3})$

✓ 2. $(2, \frac{3\pi}{4})$

✗ 3. $(3, \frac{7\pi}{4})$

✗ 4. $(4, \frac{5\pi}{4})$

Question Type : **MCQ**
Question ID : **588552884**
Option 1 ID : **5885523536**
Option 2 ID : **5885523535**
Option 3 ID : **5885523534**
Option 4 ID : **5885523533**
Status : **Answered**
Chosen Option : **2**

Q.17 If $\int \frac{cosx-sinx}{8-sin2x}dx = \frac{1}{p}\log\left[\frac{3+sinx+cosx}{3-sinx-cosx}\right]$ + c , then p = ...

Ans

✓ 1. 6

✗ 2. 1

✗ 3. 3

✗ 4. 12

Question Type : **MCQ**

Question ID : **588552879**
Option 1 ID : **5885523513**
Option 2 ID : **5885523515**
Option 3 ID : **5885523516**
Option 4 ID : **5885523514**
Status : **Answered**
Chosen Option : **1**

Q.18 **If A is non-singular matrix and (A + I) (A - I) = 0 then $A + A^{-1}$ =.....**

Ans

✔ 1. 2A

✗ 2. 0

✗ 3. I

✗ 4. 3 I

Question Type : **MCQ**
Question ID : **588552885**
Option 1 ID : **5885523538**
Option 2 ID : **5885523540**
Option 3 ID : **5885523537**
Option 4 ID : **5885523539**
Status : **Answered**
Chosen Option : **1**

Q.19 Equations of planes parallel to the plane $x - 2y + 2z + 4 = 0$ which are at a distance of one unit from the point (1,2,3) are .....

Ans

✗ 1.

$$x + 2y + 2z = -6\,, x + 2y + 2z = 5$$

✗ 2.

$$x - 2y - 6 = 0\,, x - 2y + z = 6$$

✗ 3.

$$x + 2y + 2z = 6\,, x + 2y + 2z = 0$$

✔ 4.

$$x - 2y + 2z = 0\,, x - 2y + 2z - 6 = 0$$

Question Type : **MCQ**
Question ID : **588552894**
Option 1 ID : **5885523575**
Option 2 ID : **5885523574**
Option 3 ID : **5885523576**
Option 4 ID : **5885523573**
Status : **Answered**
Chosen Option : **4**

Q.20 **The y-intercept of the line passing through A(6,1) and perpendicular to the line x - 2y = 4 is .....**

Ans

✗ 1. 5

✓ 2. 13

✗ 3. -2

✗ 4. 26

Question Type : **MCQ**
Question ID : **588552875**
Option 1 ID : **5885523499**
Option 2 ID : **5885523497**
Option 3 ID : **5885523500**
Option 4 ID : **5885523498**
Status : **Answered**
Chosen Option : **2**

Q.21 If function $f(x) = x - \frac{|x|}{x}$, $x < 0$

$= x + \frac{|x|}{x}$, $x > 0$

$= 1$, $x = 0$, then .....

Ans

✗ 1. $\lim_{x \to 0^-} f(x)$ does not exist

✗ 2. $\lim_{x \to 0^+} f(x)$ does not exist

✓ 3.

f(x) is continuous at $x = 0$

✗ 4. $\lim_{x \to 0^-} f(x) \neq \lim_{x \to 0^+} f(x)$

Question Type : **MCQ**
Question ID : **588552868**
Option 1 ID : **5885523470**
Option 2 ID : **5885523471**
Option 3 ID : **5885523469**
Option 4 ID : **5885523472**
Status : **Answered**
Chosen Option : **4**

Q.22 In ΔABC, if $tanA + tanB + tanC = 6$ and $tanA.tanB = 2$ then $tanC$ = ...

Ans

✓ 1. 3

✗ 2. 4

✗ 3. 1

✗ 4. 2

Question Type : **MCQ**
Question ID : **588552863**
Option 1 ID : **5885523451**
Option 2 ID : **5885523452**
Option 3 ID : **5885523449**
Option 4 ID : **5885523450**
Status : **Answered**
Chosen Option : **1**

Q.23 If P(6,10,10), Q(1,0,-5) , R(6,-10, λ) are vertices of a triangle right angled at Q, then value of λ is ……

Ans

✓ 1. 0

✗ 2. 1

✗ 3. 3

✗ 4. 2

Question Type : **MCQ**
Question ID : **588552857**
Option 1 ID : **5885523425**
Option 2 ID : **5885523426**
Option 3 ID : **5885523428**
Option 4 ID : **5885523427**
Status : **Answered**
Chosen Option : **1**

Q.24 For L.P.P, maximize $z = 4x_1 + 2x_2$ subject to $3x_1 + 2x_2 \geq 9,\ x_1 - x_2 \leq 3$, $x_1 \geq 0\ , x_2 \geq 0$ has ……

Ans

✗ 1. Infinite number of optimal solutions

✓ 2. Unbounded solution

✗ 3. No solution

✗ 4. One optimal solution

Question Type : **MCQ**
Question ID : **588552856**
Option 1 ID : **5885523422**
Option 2 ID : **5885523421**
Option 3 ID : **5885523423**
Option 4 ID : **5885523424**
Status : **Answered**
Chosen Option : **2**

Q.25 The function $f(x) = x^3 - 3x$ is ……..

Ans

✓ 1.

increasing in $(-\infty, -1) \cup (1, \infty)$ and decreasing in (-1, 1)

✗ 2.

increasing in $(0,\infty)$and decreasing in$(-\infty, 0)$.

✗ 3.

decreasing in $(0,\infty)$and increasing in$(-\infty, 0)$.

✗ 4.

decreasing in $(-\infty,-1) \cup (1,\infty)$ and increasing in (-1, 1)

Question Type : **MCQ**
Question ID : **588552876**
Option 1 ID : **5885523501**
Option 2 ID : **5885523503**
Option 3 ID : **5885523504**
Option 4 ID : **5885523502**
Status : **Answered**
Chosen Option : **1**

Q.26 If $x = sin\theta$, $y = sin^3\theta$ then $\frac{d^2y}{dx^2}$ at $\theta = \frac{\pi}{2}$ is .....

Ans

✗ 1. 3

✓ 2. 6

✗ 3. $\frac{1}{6}$

✗ 4. $\frac{1}{3}$

Question Type : **MCQ**
Question ID : **588552880**
Option 1 ID : **5885523518**
Option 2 ID : **5885523517**
Option 3 ID : **5885523519**
Option 4 ID : **5885523520**
Status : **Answered**
Chosen Option : **2**

Q.27 The area of the region enclosed between pair of the lines $xy = 0$ and the lines $xy + 5x - 4y - 20 = 0$, is .....

Ans

✓ 1. 20 square units

✗ 2. $\frac{4}{5}$ square units

✗ 3. 10 square units

✗ 4. 6 square units

Question Type : **MCQ**
Question ID : **588552896**
Option 1 ID : **5885523581**
Option 2 ID : **5885523583**
Option 3 ID : **5885523582**
Option 4 ID : **5885523584**
Status : **Answered**
Chosen Option : **1**

Q.2 if three dice are thrown then the probability that the sum of the numbers on their uppermost 8 faces to be at least 5 is

Ans

✗ 1. $\frac{1}{53}$

✓ 2. $\frac{53}{54}$

✗ 3. $\frac{1}{54}$

✗ 4. $\frac{52}{53}$

Question Type : **MCQ**
Question ID : **588552886**
Option 1 ID : **5885523544**
Option 2 ID : **5885523542**
Option 3 ID : **5885523543**
Option 4 ID : **5885523541**
Status : **Answered**
Chosen Option : **2**

Q.29 If $f(x) = 3x + 6, g(x) = 4x + k$ and $fog(x) = gof(x)$ then $k =$ .....

Ans

✗ 1. -9

✗ 2. 18

✗ 3. $\frac{1}{9}$

✓ 4. 9

Question Type : **MCQ**
Question ID : **588552874**
Option 1 ID : **5885523493**
Option 2 ID : **5885523496**
Option 3 ID : **5885523495**
Option 4 ID : **5885523494**
Status : **Answered**
Chosen Option : **4**

Q.30 If the sum of an infinite G.P be 9 and sum of first two terms be 5 then their common ratio is .....

Ans

✗ 1. $\frac{1}{3}$

✗ 2. 3

✓ 3. $\frac{2}{3}$

✗ 4. $\frac{3}{2}$

Question Type : **MCQ**
Question ID : **588552861**
Option 1 ID : **5885523443**
Option 2 ID : **5885523444**
Option 3 ID : **5885523441**
Option 4 ID : **5885523442**
Status : **Answered**
Chosen Option : **3**

Q.31 The negation of "$\forall\, n \in N, n+7>6$" is ...

Ans

✔ 1. $\exists n \in N$, such that $n+7 \leq 6$

✘ 2. $\exists n \in N$, such that $n+7 \geq 6$

✘ 3. $\forall n \in N, n+7 \leq 6$

✘ 4. $\exists n \in N$, such that $n+7<6$

Question Type : **MCQ**
Question ID : **588552898**
Option 1 ID : **5885523589**
Option 2 ID : **5885523591**
Option 3 ID : **5885523590**
Option 4 ID : **5885523592**
Status : **Answered**
Chosen Option : **1**

Q.32 If the vectors $x\hat{\imath}-3\hat{\jmath}+7\hat{k}$ and $\hat{\imath}+y\hat{\jmath}-z\hat{k}$ are collinear then the value of $\frac{xy^2}{z}$ is equal to

Ans

✘ 1. $\frac{9}{7}$

✔ 2. $\frac{-9}{7}$

✘ 3. $\frac{-7}{9}$

✘ 4. $\frac{7}{9}$

Question Type : **MCQ**
Question ID : **588552883**
Option 1 ID : **5885523532**
Option 2 ID : **5885523530**
Option 3 ID : **5885523529**
Option 4 ID : **5885523531**
Status : **Answered**
Chosen Option : **2**

Q.33 If $\int \tan(x-\alpha)\tan(x+\alpha)\,.\,tan2x\,dx = plog|sec2x| + qlog|\sec(x+\alpha)| + rlog|\sec(x-\alpha)| + c$ then $p+q+r =$.....

Ans

✔ 1. $\frac{-3}{2}$

✘ 2. $\frac{-5}{2}$

✘ 3. $\frac{5}{2}$

✘ 4. $\frac{3}{2}$

Question Type : **MCQ**
Question ID : **588552892**
Option 1 ID : **5885523566**
Option 2 ID : **5885523568**
Option 3 ID : **5885523567**
Option 4 ID : **5885523565**
Status : **Answered**
Chosen Option : **1**

Q.34 **Using Differentiation, approximate value of f(x) = x^2 - 2x + 1 at x = 2.99 is .....**

Ans

✔ 1. 3.96

✘ 2. 9.96

✘ 3. 4.98

✘ 4. 5.98

Question Type : **MCQ**

Question ID : **588552851**
Option 1 ID : **5885523401**
Option 2 ID : **5885523403**
Option 3 ID : **5885523402**
Option 4 ID : **5885523404**
Status : **Answered**
Chosen Option : **1**

Q.35 **A particle moves so that $x = 2 + 27t - t^3$. The direction of motion reverses after moving a distance of ..... units.**

Ans
✗ 1. 80
✓ 2. 56
✗ 3. 60
✗ 4. 65

Question Type : **MCQ**
Question ID : **588552889**
Option 1 ID : **5885523556**
Option 2 ID : **5885523554**
Option 3 ID : **5885523555**
Option 4 ID : **5885523553**
Status : **Marked For Review**
Chosen Option : **2**

Q.36 Which of the following is *NOT* equal to $\bar{w}.(\bar{u} \times \bar{v})$?

Ans
✗ 1. $\bar{u}.(\bar{v} \times \bar{w})$

✗ 2. $\bar{v}.(\bar{w} \times \bar{u})$

✗ 3. $(\bar{u} \times \bar{v}).\bar{w}$

✓ 4. $\bar{v}.(\bar{u} \times \bar{w})$

Question Type : **MCQ**
Question ID : **588552870**
Option 1 ID : **5885523477**
Option 2 ID : **5885523478**
Option 3 ID : **5885523480**
Option 4 ID : **5885523479**
Status : **Answered**
Chosen Option : **4**

Q.37 The value of $sin18°$ is . . . . . .

Ans

✗ 1. $\frac{\sqrt{5}+1}{4}$

✓ 2. $\frac{\sqrt{5}-1}{4}$

✗ 3. $\frac{4}{\sqrt{5}+1}$

✗ 4. $\frac{4}{\sqrt{5}-1}$

Question Type : **MCQ**
Question ID : **588552888**
Option 1 ID : **5885523549**
Option 2 ID : **5885523550**
Option 3 ID : **5885523552**
Option 4 ID : **5885523551**
Status : **Answered**
Chosen Option : **2**

Q.38 If the foot of the perpendicular drawn from the point (0,0,0) to the plane is (4,-2,-5) then the equation of the plane is.....

Ans

✗ 1. 4x + 2y + 5z = -13

✓ 2. 4x - 2y - 5z = 45

✗ 3. 4x + 2y - 5z = 37

✗ 4. 4x - 2y + 5z = -5

Question Type : **MCQ**
Question ID : **588552869**
Option 1 ID : **5885523475**
Option 2 ID : **5885523473**
Option 3 ID : **5885523476**
Option 4 ID : **5885523474**
Status : **Answered**

Chosen Option : **2**

Q.39 $\int \frac{x^2+1}{x^4-x^2+1}dx = \cdots$

Ans

✗ 1. $\tan^{-1}\left(\frac{x^2+1}{2}\right)+c$

✗ 2. $\tan^{-1}(x^2)+c$

✗ 3. $\tan^{-1}(2x^2-1)+c$

✓ 4. $\tan^{-1}\left(\frac{x^2-1}{x}\right)+c$

Question Type : **MCQ**
Question ID : **588552854**
Option 1 ID : **5885523416**
Option 2 ID : **5885523415**
Option 3 ID : **5885523414**
Option 4 ID : **5885523413**
Status : **Answered**
Chosen Option : **4**

Q.40 If $x^y = e^{x-y}$, then $\frac{dy}{dx}$ at $x = 1$ is .....

Ans

✗ 1. e

✗ 2. 1

✓ 3. 0

✗ 4. -1

Question Type : **MCQ**

Question ID : **588552855**
Option 1 ID : **5885523420**
Option 2 ID : **5885523417**
Option 3 ID : **5885523418**
Option 4 ID : **5885523419**
Status : **Answered**
Chosen Option : **3**

Q.41 If A = $\begin{bmatrix} 1+2i & i \\ -i & 1-2i \end{bmatrix}$, where $i = \sqrt{-1}$, then A(adjA)= .....

Ans

✗ 1. -2 I

✗ 2. 2 I

✗ 3. 5 I

✓ 4. 4 I

Question Type : **MCQ**
Question ID : **588552872**
Option 1 ID : **5885523485**
Option 2 ID : **5885523486**
Option 3 ID : **5885523488**
Option 4 ID : **5885523487**
Status : **Answered**
Chosen Option : **4**

Q.42 Which of the following statement is contingency?

Ans

✗ 1. $(p \vee q) \vee \sim q$

✗ 2. $(p \vee q) \vee \sim p$

✓ 3. $(p \vee q) \wedge \sim q$

✗ 4. $p \longrightarrow (p \vee q)$

Question Type : **MCQ**
Question ID : **588552860**
Option 1 ID : **5885523438**
Option 2 ID : **5885523437**
Option 3 ID : **5885523440**
Option 4 ID : **5885523439**
Status : **Answered**
Chosen Option : **3**

Q.43

$$\int_a^b \frac{\sqrt{x}}{\sqrt{x}+\sqrt{a+b-x}}dx = \cdots$$

Ans

✗ 1. a+b

✓ 2. $\frac{b-a}{2}$

✗ 3. a-b

✗ 4. $\frac{a-b}{2}$

Question Type : **MCQ**
Question ID : **588552891**
Option 1 ID : **5885523563**
Option 2 ID : **5885523562**
Option 3 ID : **5885523564**
Option 4 ID : **5885523561**
Status : **Answered**
Chosen Option : **2**

Q.44 The intercept on the line $y = x$ by the circle $x^2+y^2-2x = 0$ is AB. The equation of the circle with AB as a diameter is .....

Ans

✗ 1. $x^2+y^2+x+y=0$

✓ 2. $x^2+y^2-x-y=0$

✗ 3. $x^2+y^2-3x+y=0$

✗ 4. $x^2+y^2+3x-y=0$

Question Type : **MCQ**
Question ID : **588552862**
Option 1 ID : **5885523445**
Option 2 ID : **5885523446**
Option 3 ID : **5885523447**

Option 4 ID : **5885523448**
Status : **Answered**
Chosen Option : **2**

Q.45 The equation of the circle concentric with the circle $x^2 + y^2 - 6x - 4y - 12 = 0$ and touching the Y-axis is .....

Ans

✔ 1.

$$x^2 + y^2 - 6x - 4y + 4 = 0$$

✘ 2.

$$x^2 + y^2 - 6x - 4y + 9 = 0$$

✘ 3.

$$x^2 + y^2 - 6x - 4y - 4 = 0$$

✘ 4.

$$x^2 + y^2 - 6x - 4y - 9 = 0$$

Question Type : **MCQ**
Question ID : **588552900**
Option 1 ID : **5885523600**
Option 2 ID : **5885523597**
Option 3 ID : **5885523599**
Option 4 ID : **5885523598**
Status : **Answered**
Chosen Option : **2**

Q.46 $\int_0^1 x(1-x)^5\,dx = ...$

Ans

✘ 1. $\frac{1}{5}$

✔ 2. $\frac{1}{42}$

✘ 3. $\frac{1}{13}$

✘ 4. $\frac{13}{42}$

Question Type : **MCQ**
Question ID : **588552866**
Option 1 ID : **5885523464**
Option 2 ID : **5885523463**
Option 3 ID : **5885523461**
Option 4 ID : **5885523462**
Status : **Answered**
Chosen Option : **2**

Q.47 If $4\sin^{-1}x + 6\cos^{-1}x = 3\pi$ then $x = \ldots\ldots$

Ans

✘ 1. $\frac{1}{\sqrt{2}}$

✘ 2. $\frac{1}{2}$

✔ 3. 0

✘ 4. $\frac{-1}{2}$

Question Type : **MCQ**
Question ID : **588552871**

Option 1 ID : **5885523482**
Option 2 ID : **5885523483**
Option 3 ID : **5885523484**
Option 4 ID : **5885523481**
Status : **Answered**
Chosen Option : **3**

Q.48

If $\int_0^a \sqrt{\frac{a-x}{x}}\, dx = \frac{K}{2}$, then K = ...

Ans

✗ 1. $\frac{\pi a}{2}$

✗ 2. $\frac{5\pi a}{2}$

✗ 3. $\frac{3\pi a}{2}$

✓ 4. πa

Question Type : **MCQ**
Question ID : **588552853**
Option 1 ID : **5885523410**
Option 2 ID : **5885523412**
Option 3 ID : **5885523411**
Option 4 ID : **5885523409**
Status : **Answered**
Chosen Option : **4**

Q.49

In ΔABC; with usual notations, $\frac{bSinB-cSinC}{Sin(B-C)}$ = ...

Ans

✗ 1. b

✗ 2. $a+b+c$

✓ 3. a

✗ 4. c

Question Type :	**MCQ**
Question ID :	**588552859**
Option 1 ID :	**5885523434**
Option 2 ID :	**5885523436**
Option 3 ID :	**5885523433**
Option 4 ID :	**5885523435**
Status :	**Answered**
Chosen Option :	**3**

Q.50 The solution of the differential equation $\frac{d\theta}{dt} = -k(\theta - \theta_0)$ where k is constant, is .....

Ans

✓ 1. $\theta = \theta_0 + ae^{-kt}$

✗ 2. $\theta = \theta_0 + ae^{kt}$

✗ 3. $\theta = 2\theta_0 - ae^{kt}$

✗ 4. $\theta = 2\theta_0 - ae^{-kt}$

Question Type :	**MCQ**
Question ID :	**588552878**
Option 1 ID :	**5885523509**
Option 2 ID :	**5885523510**
Option 3 ID :	**5885523512**
Option 4 ID :	**5885523511**
Status :	**Answered**
Chosen Option :	**1**