MATHS

BOOKS - TS EAMCET PREVIOUS YEAR PAPERS

TS EAMCET 2016

Mathematic

1. If $f(x) = x^2 - 2x + 4$ then the set of values of x satisfying $f(x-1) = f(x+1)$ is

A. { -1}

B. {-1, 1}

C. {1}

D. {1,2}

Answer: c

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2. The number of real linear functions f(x) satisfying $f(f(x)) = x + f(x)$ is

A. 0

B. 4

C. 5

D. 2

Answer: d

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3. The remainder when $7^n - 6n - 50 (n \in N)$ is divided by 36, is

A. 22

B. 23

C. 1

D. 21

Answer: b

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4. Consider the system of equations

ax + by + cz = 2

bx + cy + az = 2

$cx + ay + bz = 2$

where a,b,c are real numbers such that $a + b + c = 0$. Then the system

A. has two solutions

B. is inconsistent

C. has unique solution

D. has infinitely many solutions

Answer: b

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5. Suppose A and B are two square matrices of same order. If A, B are symmetric matrices, then AB - BA is

A. a symmetric matrix

B. a skew- symmetric

C. a scalar matrix

D. a triangular matrix

Answer: b

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6. If $A(x) = \begin{vmatrix} x+1 & 2x+1 & 3x+1 \\ 2x+1 & 3x+1 & x+1 \\ 3x+1 & x+1 & 2x+1 \end{vmatrix}$ then $\int_0^1 A(x)$ dx is equal to

A. -15

B. $-\frac{15}{2}$

C. -30

D. -5

Answer: b

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7. If z = x + iy $iscomp \leq x\nu mbersuch$z^(1-//3) = a+ib , $thenthevalueof$1/(a^2+b^2)(x/a+y/b)=`

A. -1

B. -2

C. 0

D. 2

Answer: b

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8. The locus of Z satisfying $|z| + |z - 1| = 3$ is

A. a circle

B. a pair of straight lines

C. an ellipse

D. a parabola

Answer: c

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9. If the point $z = (1 + i)(1 + 2i)(1 + 3i)\ldots(1 + 10i)$ lies on a circle with centre at origin and radius r, then r^2 =

A. 10!

B. $2 \times 3 \times 4 \times \ldots\ldots \times 10$

C. $2 \times 5 \times 10 \times \ldots \times 101$

D. 11!

Answer: c

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10. The minimum value of $|z-1|+|z-5|$ is

A. 5

B. 4

C. 3

D. 2

Answer: b

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11. The number of real roots of $\left|x^2\right| - 5|x| + 6 = 0$ is

A. 2

B. 3

C. 4

D. 1

Answer: c

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12. If α, β are the roots of $x^2 - x + 1 = 0$, then the quadratic equation whose roots are $\alpha^{2015}\beta^{2015}$ is

A. $x^2 - x + 1 = 0$

B. $x^2 + x + 1 = 0$

C. $x^2 + x - 1 = 0$

D. $x^2 - x - 1 = 0$

Answer: b

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13. If α, β, γ are roots of $x^3 = 5x + 4 = 0$ then $\{\alpha^3 + \beta^3 + \gamma^3)^2$ is equal to

A. 12

B. 13

C. 169

D. 144

Answer: d

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14. Suppose α, β, γ are roots of $x^3 + x^2 + 2x + 3 = 0$. If f(x) = 0 is a cubic polynomial equation whose roots are $\alpha + \beta, \beta + \gamma, \gamma + \alpha$, then f(x) is equal to

A. $x^3 + 2x^2 - 3x - 1$

B. $x^3 + 2x^2 - 3x + 1$

C. $x^3 + 2x^2 + 3x - 1$

D. $x^3 + 2x^2 + 3x + 1$

Answer: c

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15. The number of 4 letter words that can be formed with the letters in the word EQUATION with at least one letter repeated is

A. 2400

B. 2408

C. 2416

D. 2432

Answer: c

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16. The number of divisors of $7!$ is

A. 24

B. 72

C. 64

D. 60

Answer: d

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17. The sum of the series

$1+\frac{2}{3}\left(\frac{1}{8}\right)+\frac{2\times5\times8}{3\times6\times9}\left(\frac{1}{8}\right)^3+\ldots$ is

A. $\frac{4}{.^3\sqrt{49}}$

B. $\frac{.^3\sqrt{49}}{4}$

C. $\frac{4}{.^3\sqrt{81}}$

D. $\frac{.^3\sqrt{81}}{4}$

Answer: a

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18. If C_r denotes the binomial coefficient $.^n C_{r+}$ then (-1)

$C_0^2 + 2C_1^2 + 5C_2^2 + \ldots\ldots + (3n-1)C_n^2$ is equal to

A. $(3n-2).^{2n} C_n$

B. $\left(\frac{3n-2}{2}\right).^{2n} C_P$

C. $(5+3n).^{2nC_n}$

D. $\left(\frac{3n-5}{2}\right).^{2n} C_{a+1}$

Answer: b

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19.

$$\frac{x+1}{x^4(x+2)} = \frac{A}{x} + \frac{B}{x^2} + \frac{C}{x^3} + \frac{D}{x^4} + \frac{E}{x+2} \Rightarrow B + D + E =$$

A. A + C

B. A - C

C. 2A + C

D. 2A + 2C

Answer: a

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20. If $\cos^3\theta + \cos^3\left(\frac{2\pi}{3} + \theta\right) + \cos^3\left(\frac{4\pi}{3} + \theta\right) = a\cos 3\theta,$

then a =

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

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

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

D. $\frac{7}{4}$

Answer: b

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21. $\frac{\cos 13^\circ - \sin 13^\circ}{\cos 13^\circ + \sin 13^\circ} + \frac{1}{\cot 148^\circ}$ is equal to

A. A. 1

B. B. -1

C. C. 0

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

Answer: c

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22. If $\cos x+\cos y+\cos\alpha=0$ and $\sin x+\sin y+\sin\alpha=0$, then $\cot\left(\frac{x+y}{2}\right)$ =

A. sin α

B. cos α

C. tan α

D. cot α

Answer: d

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23. If $f(x) = \cos^2 x + \cos^2 2x + \cos^2 3x$ then the number of $x\varepsilon[0, 2\pi]$ for which $f(x) = 1$ is

A. 4

B. 6

C. 8

D. 10

Answer: b

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24. The value of x which satisfies $\sin(\cot^{-1} x) = \cos(\tan^{-1} + (1 + x))$ is

A. $-\frac{1}{2}$

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

C. -1

D. 1

Answer: a

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25. For $\theta \in \left(0, \frac{\pi}{2}\right)\text{sech}^{-1}(\cos\theta)$ is equal to

A. $\log\left|\tan\left(\frac{x}{6} + \frac{\theta}{2}\right)\right|$

B. $\log\left|\tan\left(\frac{\pi}{3} + \frac{\theta}{2}\right)\right|$

C. $\log\left|\tan\left(\frac{\pi}{4} + \frac{\theta}{2}\right)\right|$

D. $\log\left|\tan\left(\frac{\pi}{4} - \frac{\theta}{2}\right)\right|$

Answer: c

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26. If ΔABC is such that $\angle A = 90^\circ, \angle B \ne \angle C$ then $\dfrac{b^2 + c^2}{b^2 - c^2} \sin(B - C)$ =

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

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

C. 1

D. $\frac{3}{2}$

Answer: c

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27. In ΔABC, if $8R^2 = a^2 + b^2 + c^2$, then the triangle is a

A. right angled triangle

B. equilibrium triangle

C. scalene triangle

D. obtuse angled triangled

Answer: a

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28. In ΔABC, if $2R + r = r_2$ then $\angle B =$

A. $\frac{\pi}{3}$

B. $\frac{\pi}{4}$

C. $\frac{\pi}{6}$

D. $\frac{\pi}{2}$

Answer: d

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29. If ABCDEF is a regular hexagon with centre O , then P.T

$$\overline{AB}+\overline{AC}+\overline{AD}+\overline{AE}+\overline{AF}=3\overline{AD}=6\overline{AO}$$

A. 2 AO

B. 3 AO

C. 5 AO

D. 6 AO

Answer: d

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30. ABCD is a parallelogram and P is the midpoint of the side AD. The line BP meets the diagonal AC in Q. Then, the ratio of AQ:QC is equal to

A. $1:2$

B. $2:1$

C. $1:3$

D. $3:1$

Answer: a

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31. The vectors $2\hat{i} - 2\hat{j} + \hat{k}$, $\hat{i} - 2\hat{j} + 3\hat{k}$ and $3\hat{i} + \hat{j} - 2\hat{k}$

A. are linearly dependent

B. are linearly independent

C. form sides of a triangle

D. are coplanar

Answer: b

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32. a.b and c are three vectors such that |a| =1, |b| = 2, |c| = 3 and b,c are perpendicular. If projection of both is the same as the projection of c on a, then |a - b + c| is equal to

A. $\sqrt{2}$

B. $\sqrt{7}$

C. $\sqrt{14}$

D. $\sqrt{21}$

Answer: c

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33. If a,b,c are unit vectors satisfying the relation $a+b+\sqrt{3}c=0$, then the angle between a and b is

A. $\frac{\pi}{6}$

B. $\left(\frac{\pi}{4}\right.$

C. $\frac{\pi}{3}$

D. $\frac{\pi}{2}$

Answer: c

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34. a is perpendicular to both b and c . The angle between b and c is $\frac{2\pi}{3}$. If |a| = 2, |b| = 3, |c| = 4, then c. $(a \times b)$ is equal to

A. $18\sqrt{3}$

B. $12\sqrt{3}$

C. $8\sqrt{3}$

D. $6\sqrt{3}$

Answer: b

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35. If the average of the first n numbers in the sequence 148, 146, 144,....., is 125, then n =

A. 18

B. 24

C. 30

D. 36

Answer: b

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36. The standard deviation of

a,a + d,a + 2d......,a + 2nd is

A. nd

B. n^2d

C. $\sqrt{\frac{n(n+1)}{3}}d$

D. $\sqrt{\frac{n(n+3)}{3}}d$

Answer: c

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37. Two events A and B are such that $P(A)=\frac{1}{2}, P(A \mid B)=\frac{1}{4}$ and $P(B \mid A)=\frac{1}{2}$ Consider the following statements :

(I) $P(\overline{A} \mid \overline{B})=\frac{3}{4}$

(II) A and B are mutually exclusive

(III) $P(A \mid B)+P(A \mid B)=1$. Then

A. Only (I) is correct

B. Only (I) and (II) are correct

C. only (I) and (III) are correct

D. Only (II) and (III) are correct

Answer: a

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38. A five digit number is formed by the digits 1,2,3,4,5 with no digit being repeated. The prohability that the number is divisible by 4, is

A. $\frac{1}{5}$

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

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

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

Answer: a

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39. When a pair of six faced fair dice are thrown, the probability that the sum of the numbers on the two dice is greater than 7 , is

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

B. $\frac{5}{12}$

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

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

Answer: b

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40. In a family with 4 children the probability that there are atleast two girls, is

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

B. $\frac{9}{16}$

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

D. $\frac{11}{16}$

Answer: d

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41. On an average nine out of 10 ships that have departed at A reach B safely. The probability that out of five ships that have departed at A atleast four will reach B safely is

A. $14(0.9)^5$

B. $1.4(0.9)^5$

C. $0.14(0.9)^4$

D. $1.4(0.9)^4$

Answer: d

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42. If A(5,- 4) and B (7, 6) are points in a plane then the set of all points P (X,y) in the plane such that AP:PB = 2:3 is

A. a circle

B. a hyperbola

C. an ellipse

D. a parabola

Answer: a

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43. If the axes are rotated anticlock wise through an angles 90°, then the equation $x^2 = 4ay$ is changed to the equation

A. $y^2 = 4ax$

B. $x^2 = -4ay$

C. $y^2 = -4ax$

D. $x^2 = 4ay$

Answer: a

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44. The combined equation of the straight lines of the form $y = kx + 1$ (where k is an integer such that the point of intersection of each with the line $3x + 4y = 9$ has an integer as its x-coordinate is

A. $(y + x + 1)(y + 2x - 1) = 0$

B. $(y + x - 1)(y + 2x + 1) = 0$

C. $(y + x + 1)(y + 2x + 1) = 0$

D. $(y + x - 1)(y + 2x - 1) = 0$

Answer: d

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45. A value of k each that the straight lines y - 3kx + 4 = 0 and (2k - 1) x - (8k - 1) y - 6 = 0 are perpendicular

A. $\frac{1}{6}$

B. $-\frac{1}{6}$

C. 1

D. 0

Answer: a

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46. The length of the segment of the straight line passing through (3,3) and (7,6) cut off by the coordinate axes is

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

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

C. $\frac{7}{4}$

D. $\frac{4}{7}$

Answer: b

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47. The equation of the pair of straight lines through the point (1,1) and perpendicular to the pair of straight lines $3x^2 - 8xy + 5y^2 = 0$ is

A. $5x^2 + 8xy + 3y^2 - 14x - 18y + 16 = 0$

B. $5x^2 + 8xy + 3y^2 - 18x - 14y + 18 = 0$

C. $5x^2 - 8xy + 3y^2 - 18x - 14y + 32 = 0$

D. $5x^2 - 8xy + 3y^2 - 14x - 18y + 32 = 0$

Answer: b

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48. The combined equation of three sides of a triangle is $(x^2 - y^2)(2x + 3y - 6) = 0$. If (-2, a) is an interior point of the triangle, then

A. $-2 < \alpha < 0$

B. $-2 < \alpha < 2$

C. $0 < \alpha < 2$

D. $\alpha > 2$

Answer: c

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49. The piont where the line 4x - 3y + 7 = 0 touches the circle $x^2 + y^2 - 6x + 4y - 12 = 0$ is

A. (1,1)

B. (1,-1)

C. (-1,1)

D. (-1,-1)

Answer: a

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50. The normal to the circule given by $x^2 + y^2 - 6x + 8y - 144 = 0$ at (8,8) meets the circle again at the point

A. (2,-16)

B. (2, 16)

C. (-2, 16)

D. (-2, -16)

Answer: d

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51. For all real values of k, the polar of the point (2k, k - 4) with respect to $x^2 + y^2 - 4x - 6y + 1 = 0$ passes through the point

A. (1,1)

B. (1,-1)

C. (-3,1)

D. (3,1)

Answer: d

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52. If the circles $x^2 + y^2 - 2\lambda x - 2y - 7 = 0$ and $3(x^2 + y^2) - 8x + 29y = 0$ are orthogonal the λ is equal to

A. 4

B. 3

C. 2

D. 1

Answer: d

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53. The radical centre of the circles $x^2 + y^2 = 1, x^2 + y^2 - 2x - 3 = 0$ and $x^2 + y^2 - 2y - 3 = 0$ is

A. (1,1)

B. (1, -1)

C. (-1,1)

D. (-1,-1)

Answer: d

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54. From a point (C, 0) three normals are drawn to the parabola $y^2 = x$. Then

A. $C < \frac{1}{2}$

B. $C = \frac{1}{2}$

C. $C > \frac{1}{2}$

D. $\frac{1}{2} > C > \frac{1}{4}$

Answer: c

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55. The points of intersection of the parabolas $y^2 = 5x$ and $x^2 = 5y$ lie on the line

A. x + y = 10

B. x - 2y = 0

C. x - y = 0

D. 2x - y = 0

Answer: c

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56. For the ellipse given by $\frac{(x-3)^2}{25}+\frac{(y-2)^2}{16}=1$, match the equations of the lines given in List I with those on the List Ii.

List I	List II
i. The equation of the minor axis	p. $3x=34$
ii. The equation of a latusrectum	r. $x+y=9$
	s. $x=6$
	f. $x=3$
	u. $3y=34$

A. I,P,S

B. Q,U,F

C. Q,P,F

D. Q,P,S

Answer: d

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57. If S and S'' are the foci of the ellipse $\frac{x^2}{25}+\frac{y^2}{16}=1$ and if PSP' is a focal chord with SP = 8 then SS'' =

A. 4 + s'p

B. s'p - 1

C. 4 + sp

D. sp - 1

Answer: a

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58. Let $A(2\sec\theta, 3\tan\theta)$ and $B(2\sec\phi, 3\tan\phi) where \theta + \phi = \frac{\pi}{2}$ be two point on the hyperbola $\frac{x^2}{4} - \frac{y^2}{9} = 1$. If (α, β) is the point of intersection of normals to the hyperbola at A and B ,thenβ =

A. $-\frac{13}{3}$

B. $\frac{13}{3}$

C. $\frac{3}{13}$

D. $-\frac{3}{13}$

Answer: a

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59. Points A(3,2,4), B $\left(\frac{33}{5}, \frac{28}{5}, \frac{38}{5}\right)$ and C(9,8,10) are given. The ratio in which B divides $\overline{AC}$ is

A. $5:3$

B. $2:1$

C. $1:3$

D. $3:2$

Answer: d

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60. If the angle between the lines whose direction cosines are $\left(\frac{2}{\sqrt{21}}, \frac{C}{\sqrt{21}}, \frac{1}{\sqrt{21}}\right)$ and $\left(\frac{3}{\sqrt{54}}, \frac{3}{\sqrt{54}}, \frac{6}{\sqrt{54}}\right)$ is $\frac{\pi}{2}$ then the value of C is

A. 6

B. 4

C. -4

D. 2

Answer: b

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61. The image of the point ((5,2,6) with respect to the plane x + y + z = 9 is

A. (3,-5,2)

B. $\left(\frac{7}{2}, -1, 5\right)$

C. $\left(\frac{7}{3}, \frac{2}{3}, (10), (3)\right)$

D. $\left(\frac{7}{3}, \frac{2}{3}, -\frac{5}{3}\right)$

Answer: c

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62. $\lim_{x \to \infty} \left[\frac{x^2 + x + 3}{x^2 - x + 2}\right]^x$ is equal to

A. ∞

B. e

C. e^4

D. e^2

Answer: d

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63. The value of p and q so that the function

$$f(x) = \left\{\left((1 + |\sin x|)^{\frac{p}{\sin x}}, \frac{-\pi}{6} < x < 0\right)\left(e^{\frac{\sin 2x}{\sin 3x}}, 0 < x < \frac{\pi}{6}\right)\right.$$

is continuous at x = 0, are

A. $p = \frac{1}{3}, q = e^{2/3}$

B. $p = 0, q = e^{2/3}$

C. $p = \frac{2}{3}, q = e^{-2/3}$

D. $p = -\frac{2}{3}, q = e^{2/3}$

Answer: d

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64. If $y = \tan^{-1}\left[\frac{5\cos x - 12\sin x}{12\cos x + 5\sin x}\right]$, then $\frac{dy}{dx}$ is equal to

A. 1

B. -1

C. -2

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

Answer: b

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65. $\frac{d}{dx}\tan^{-1}\left[\frac{\sqrt{1+\sin x} - \sqrt{1-\sin x}}{\sqrt{1+\sin x} + \sqrt{1-\sin x}}\right]$ is equal to

A. 1

B. $-\frac{1}{2}$

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

D. -1

Answer: c

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66. If y = a cos (sin 2x) + b sin (sin 2x), then $y_2 + (\tan 2x)y_1 =$

A. 0

B. $4(\cos^2 2x)y$

C. $-4(\cos^2 2x)y$

D. $-(\cos^2 2x)y$

Answer: c

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67. The length of the segment of the tangent line to the curve $x = a\cos^3, y = a\sin^3 t$, at any point on the curve cut off by the coordinate axes is

A. 4a

B. a

C. a^2

D. 2a

Answer: b

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68. The area of the triangle formed by the positive x-axis, the tangent and normal to the curve $x^2 + y^2 = 16^2$ at the point $(2\sqrt{2}a, 2\sqrt{2}a)$ is

A. a^2

B. $16a^2$

C. $4a^2$

D. Ba^2

Answer: d

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69. Define $f(x) = \frac{1}{2}[|\sin x| + \sin x], 0 < x \leq 2\pi$. Then f is

A. Increasing in $\left(\frac{\pi}{2}, \frac{3\pi}{2}\right)$

B. decreasing in $\left(0, \frac{\pi}{2}\right)$ and increasing in $\left(\frac{\pi}{2}, \pi\right)$

C. increasing in $\left(0, \frac{\pi}{2}\right)$ and decreasing in $\left(\frac{\pi}{2}, \pi\right)$

D. Increasing in $\left(0, \frac{\pi}{4}\right)$ and decreasing in $\left(\frac{\pi}{4}, \pi\right)$

Answer: c

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70. The smallest value of of the constant $m > 0$ for which $f(x) = 9mx - 1 + \frac{1}{x} \geq 0$ for all $x > 0$, is

A. $\frac{1}{9}$

B. $\frac{1}{16}$

C. $\frac{1}{36}$

D. $\frac{1}{81}$

Answer: c

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71. $\int \frac{x^2+1}{x^4+x^2+1}$ dx =

A. $\frac{1}{3}\tan^{-1}\left(\frac{x^2-1}{3x}\right)+C$

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

C. $\frac{1}{3}\tan^{-1}\left(\frac{x^2-1}{x}\right)+C$

D. $\frac{1}{\sqrt{(3)}\tan^{-1}\left(\frac{x^2-1}{\sqrt{3x}}\right)+C}$

Answer: a

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72. $\int \frac{x^3}{\sqrt{1+x^2 dx}}$ is equal to

A. $\sqrt{1+x^2} - \frac{x}{3}(1+x^2)^{3/2} + C$

B. $x\sqrt{1+x^2} + \frac{2}{3}(1+x^2)^{3/2} + C$

C. $x^2\sqrt{1+x^2} - \frac{2}{3}(1+x^2)^{3/2} + C$

D. $x^2\sqrt{1+x^2 - \frac{1}{3}(1+x^2)^{1/2} + C}$

Answer: c

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73. $\int \frac{dx}{\cos(x+4)\cos(x+2)}$ is equal to

A. $\frac{1}{\sin 2}\log\left|\cos(x+4)^2\right| + C$

B. $\frac{1}{2}\log\left|\frac{\sec(x+2)}{\sec(x+4)}\right| + C$

C. $\frac{1}{\sin 2}\log\left|\frac{\sec(x+4)}{\sec(x+2)}\right|+C$

D. $\log\left|\frac{\sec(x+4)}{\sec(x+2)}\right|+C$

Answer: c

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74. $\int \frac{2x+2}{\sqrt{x^2-4x-5}}dx$ is equal to

A. $\sqrt{x^2-4x-5}+\log\left|x+\sqrt{x^2-4x-5}\right|+C$

B. $\log\left|\sqrt{x^2-4x-5}\right|-\sqrt{x^2-4x-5}+C$

C. $\sqrt{x^2-4x-56}\log\left|(x-2)+\sqrt{x^2-4x-5}\right|+C$

D. $2\sqrt{x^2-4x-5}+6\log\left|(x-2)+\sqrt{x^2-4x-5}\right|+C$

Answer: d

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75. $\int_0^{\pi/4} \frac{\sin x + \cos x}{7 + 9\sin 2x} dx$ is equal to

A. $\frac{\log 3}{4}$

B. $\frac{\log 3}{36}$

C. $\frac{\log 7}{12}$

D. $\frac{\log 7}{24}$

Answer: d

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76. $\int_0^{\pi/4} \left[\sqrt{\tan x} + \sqrt{\cot x}\right] dx$ is equal to

A. $\frac{\pi}{\sqrt{2}}$

B. $\frac{\pi}{2}$

C. $\frac{3\pi}{\sqrt{2}}$

D. π

Answer: a

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77. If the area bounded by the curves $y = ax^2$ and $x = ay^2, (a > 0)$ is 3 sq. units, then the value of a is

A. $\frac{2}{3}$

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

C. 1

D. 4

Answer: b

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78. Let $p \in IR$, then the differential equation of the family of curves $y = (\alpha + \beta x)e^{px}$, where α, β are arbitrary constant is

A. $y + 4py' + p^2 = 0$

B. $y - 2py' + p^2 y = 0$

C. $Y + 2py' - p^2 y = 0$

D. $y + 2py' + p^2 y = 0$

Answer: b

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79. The solution of the differential equation $3xy' - 3y + \left(x^2 - y^2\right)^{1/2} = 0$, satisfying the condition y (1) = 1 is

A. $3\cos^{-1}\left(\frac{y}{x}\right) = In|x|$

B. $3\cos\left(\frac{y}{x}\right) = In|x|$

C. $3\cos^{-1}\left(\frac{y}{x}\right) = 2In|x|$

D. $3\sin^{-1}\left(\frac{y}{x}\right) = In|x|$

Answer: a

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80. The solution of the differential equation $y' = \frac{1}{e^{-y} - x}$ is

A. $x = e^{-y}(y + c)$

B. $y+e^{-y}=x+c$

C. $x=e^{y}(y+C)$

D. $x+y=e(-y)+C$

Answer: a

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