megaleap
Comprehensive MCA Entrance Coaching

SANMACS INDIA

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M. C. A. ENTRANCE **CODE: III** **Total Questions: 100**
Time: 120 Minutes

1. The solutions to the simultaneous equations
$(y-z)(z+x)=20$
$(x-y)(y-z)=4$
$(z+x)(x-y)=20$ is given by
(a) $x=\pm7, y=\pm5, z=\pm3$ (b) $x=\pm3, y=\pm5, z=\pm7$
(c) $x=\pm5, y=\pm3, z=\pm7$ (d) none of these

2. The solutions to the simultaneous equations
$xy+x+y=29$
$yz+y+z=23$
$zx+z+x=19$ us given by
(a) $x=5, y=4, z=3$ (b) $x=3, y=5, z=4$
(c) $x=4, y=5, z=3$ (d) none of these

3. If the system of equations
$ax+y+z=0$
$x+by+z=0$
$x+y+cz=0$ has a non-trivial solution, then
$\frac{1}{1-a}+\frac{1}{1-b}+\frac{1}{1-c}$
(a) 2 (b) 1 (c) -1 (d) 0

4. If the matrix AB is zero, then
(a) **A** =0 or **B** =0
(b) **A** =0 and **B**=0
(c) it is not necessary that either **A** =0 or **B** =0
(d) all these statements are wrong

5. If **I** is identity matrix of order m, then it is an multiplicative identity for every matrix of order-
(a) $n\times n$ (b) $n\times m$ (c) $m\times m$ (d) $m\times n$

6. Any matrix **A** is called idempotent if
(a) $A^2=(\overline{A})'$ (b) $A^2=A$
(c) $\mathbf{A}^2=\overline{A}$ (d) $\mathbf{A}^2=A'$

7. If **A** is non –zero column matrix and **B** is non-zero row matrix, then
(a) p(**AB**)=0 (b) p(**AB**) =1
(c) p(**AB**)=2 (d) p(**AB**)=3

8. The rank of the matrix $\begin{bmatrix}2&3&-1&-1\\1&-1&-2&-4\\3&1&3&-2\\6&3&0&-7\end{bmatrix}$ is
(a) 0 (b) 1 (c) 2 (d) 3

9. Choose the correct statement for the matrix **A** = $\begin{bmatrix}0&0&1\\3&1&0\\-2&1&4\end{bmatrix}$
(a) $A^3+5A^2-6A+5I=0$ (b) $A^3+6A-5I=0$
(c) $A^3-5A^2+6A-5I=0$ (d) $A^3-5A^2+2A+5I=0$

10. The equation $x+2y+3z=14, 3x+y+2z=11,$ $2x+3y+z=11$, then the value of x, y, z are
(a) (1, 2, 3) (b) (2, 3, 4) (c) (0, 1, 2) (d) (1, 1, 1)

11. The system of linear equations
$x+y+z=0,\ 2x+y-z=11, 3x+2y=0$ has
(a) no solution (b) a unique solution
(c) an infinitely many solutions (d) none of these

12. If the equation $3x-y+4z-3=0$, $x+2y-3z+2=0$ and $6x+5y+\lambda z+3=0$ have infinitely solution, then the value of λ us
(a) 7 (b) -7 (c) 5 (d) -5

13. If $\int\frac{dx}{1+\sin x}=\tan\left(\frac{x}{2}+a\right)+b$ then
(a) $a=\frac{\pi}{4}, b=3$ (b) $a=-\frac{\pi}{4}, b=3$

(c) $a=\frac{\pi}{4}, b=$ arbitary constant

(d) $a=-\frac{\pi}{4}, b=$ arbitary constant

14. The value of $\left(\sqrt{2}+1\right)^6+\left(\sqrt{2}-1\right)^6$ will be

(a) 195 (b) 196 (c) 198 (d) none

15. The sum of coefficients of the polynomial $\left(1+x-3x^2\right)^{2143}$ is

(a) 1 (b) -1 (c) 0 (d) none

16. The value of $\frac{1}{1!(n-1)!}+\frac{1}{3!(n-3)!}+\frac{1}{5!(n-5)!}+.....$

(a) $\frac{2^{n-1}}{n!}$ (b) $\frac{2^n}{n!}$ (c) $\frac{2^n}{(n-1)!}$ (d) none

17. The eccentricity of the rectangular hyperbola is

(a) 2 (b) 0 (c) 1 (d) $\sqrt{2}$

18. The difference of focal distances of any point on hyperbola is equal to

(a) conjugates axis (b) latus rectum
(c) semi-transverse axis (d) transverse axis

19. The number of non-zero terms inn the expansion of $\left(1+3\sqrt{2}x\right)^9+\left(1-3\sqrt{2}x\right)^9$ is

(a) 9 (b) 0 (c) 5 (d) 10

20. If the third term in the expansion of $\left[x+x^{\log_{10}x}\right]^5$ is equal to 10, 00, 000, then x =

(a) 10 (b) 100
(c) 1000 (d) no such x exists

21. The normal at point $\mathbf{P}\left(at_1^2, 2at_1\right)$ meets the parabola again at $\mathbf{Q}\ \left(at_2^2, 2at_2\right)$, then $t_2=$

(a) $t_1+\frac{2}{t_1}$ (b) $t_1-\frac{2}{t_1}$

(c) $-t_2+\frac{2}{t1}$ (d) $-t_1-\frac{2}{t_1}$

22. Area of the triangle formed by the extremities of latus rectum and the vertex of parabola $x^2=12y$, is

(a) 18 sq. unit (b) 24 sq. unit
(c) 12 sq. unit (d) 36 sq. unit

23. If (2, 0)is the vertex and Y –axis the directrix of a parabola, then its focus is

(a) (2, 0) (b) (-2, 0) (c) (4, 0) (d) (-4, 0)

24. An ellipse is described by sing an endless string which is passed over two pins. If the axes are 6 cm and 4 cm, the necessary length of the string and the distance between the pins respectively in cms are

(a) $6, 2\sqrt{5}$ (b) $6, \sqrt{5}$ (c) $4, \sqrt{5}$ (d) none

25. If a variable point P on an ellipse of eccentricity e is joined to the foci S and S', then the in centre of the triangle PSS' lies on an ellipse of eccentricity

(a) $\sqrt{\frac{e}{1+e}}$ (b) $\sqrt{\frac{2e}{1+e}}$

(c) $\sqrt{\frac{e}{1+e^2}}$ (d) $\sqrt{\frac{2e}{1+e^2}}$

26. A function f(x, y) is said to be homogeneous of degree n in (x, y) if

(a) $f\left(kx,ky\right)=k^{2n}f\left(x,y\right)$ (b) $f\left(kx,ky\right)=k^{n-1}f\left(x,y\right)$

(c) it is of the form $x^n f\left(\frac{x}{y}\right)$ (d) it of the form of $x^n f\left(\frac{y}{x}\right)$

27. $\frac{d^2y}{dx^2}$ of an implicit function $f\left(x,y\right)=0$ is given by

(a) $-\frac{f_y f_x^2-f_x f_y^2}{f_y^2}$

(b) $-\frac{f_x^2\left(f_y\right)^2-2f_x f_y f_{xy}+f_y^2\left(f_x\right)^2}{f_y^3}$

(c) $-\frac{\left(f_x f_y\right)^2-2f_x f_y f_{xy}}{f_y^3}$ (d) none of these

28. Radical axis of the circles $x^2+y^2+6x-2y-9=0$ and $x^2+y^2-2x+9y-11=0$ is given by

(a) $8x-11y+2=0$ (b) $8x+11y+2=0$
(c) $8x+11y-2=0$ (d) none of these

29. The equation of the circumcircle of the triangle formed by the lines $y+\sqrt{3}x=6, y-\sqrt{3}x=6 \text{ and } y=0$ is

(a) $x^2+y^2-4y=0$ (b) $x^2+y^2+4x=0$
(c) $x^2+y^2-4y=12$ (d) $x^2+y^2+4x=12$

30. If the tow circles $\left(x-1\right)^2+\left(y-3\right)^2=r^2$ and $x^2+y^2-8x+2y+8=0$ intersect in two distinct points, then

(a) $2<r<8$ (b) $r<2$ (c) r =2, r = 8 (d) $r>2$

31. The angle between the tangents drawn from the origin

to the circle $(x-7)^2+(y+1)^2=25$ is

(a) $\pi/3$ (b) $\pi/6$ (c) $\pi/2$ (d) $\pi/8$

32. According to mean value theorem, if f(x) is continuous in [a, b] and possesses a derivative at every point of (a, b), then there exists a point c in (a, b) such that

(a) $f(b)+f(a)=(b+a)f'(c)$

(b) $(b+a)\left[f(b)+f(a)\right]=f'(c)$

(c) $(b-a)\left[f(b)-f(a)\right]=f'(c)$

(d) $f(b)-f(a)=(b-a)f'(c)$

33. The number of common tangents to two circles $x^2+y^2=4$ and $x^2+y^2-8x+12=0$ is

(a) 1 (b) 2 (c) 3 (d) 4

34. If a function f is derivable in $[a,b]$ with $f(a)=f(b)$, then

(a) $f'=0$ (b) $f'(x)=0$ for some x

(c) $f'\neq 0$ (d) $f'(a)=f'(b)$

35. If $z=xyf(x/y)$, then $x\frac{\delta z}{\delta x}+y\frac{\delta z}{\delta y}=$

(a) z (b) 0 (c) 1/z (d) 2z

36. The solution of $\left(xy^2-x^2\right)dx+\left(3x^2y^2+x^2y-2x^3+y^2\right)dy=0$ is

(a) $e^{6y}\left(\frac{x^2y^2}{2}-\frac{x^3}{3}+\frac{y^2}{6}-\frac{y}{18}+\frac{1}{108}\right)=c$

(b) $e^{6y}\left(\frac{x^2y^2}{2}+\frac{x^3}{3}+\frac{y^2}{6}+\frac{y}{18}+\frac{1}{108}\right)=c$

(c) $e^{6y}\left(\frac{x^2y^2}{2}-\frac{x^3}{3}-\frac{y^2}{6}+\frac{y}{18}-\frac{1}{108}\right)=c$

(d) none of these

37. The solution of $\left(x^2y-2xy^2\right)dx-\left(x^3-3x^2y\right)dx=0$ is

(a) $\frac{x}{y}+\log\frac{y^3}{x^2}=c$ (b) $\frac{x}{y}+\log\frac{x^2}{y^3}=c$

(c) $\frac{y}{x}+\log\frac{y^3}{x^2}=c$ (d) none of these

38. The solution of $\frac{dy}{dx}=e^{x-y}\left(e^x-e^y\right)$ is

(a) $e^y=\left(e^x+1\right)+ce^x$ (b) $e^y=\left(e^x-1\right)+ce^{e^x}$

(c) $e^y=\left(e^x-1\right)+ce^{-e^x}$ (d) none of these

39. The value of $\begin{vmatrix}1^2 & 2^2 & 3^2 & 4^2\\ 2^2 & 3^2 & 4^2 & 5^2\\ 3^2 & 4^2 & 5^2 & 6^2\\ 4^2 & 5^2 & 6^2 & 7^2\end{vmatrix}$ is

(a) 0 (b) 1 (c) 2 (d) 3

40. Value of determinant $\begin{vmatrix}b+c & a & a\\ b & c+a & b\\ c & c & a+b\end{vmatrix}$ is

(a) 0 (b) 4abc

(c) $1+\frac{1}{a}+\frac{1}{b}+\frac{1}{c}$ (d) none of these

41. If $\Delta_1=\begin{vmatrix}x & b & b\\ a & x & b\\ a & a & x\end{vmatrix}$ *and* $\Delta_2=\begin{vmatrix}x & b\\ a & x\end{vmatrix}$ are the given determinants, then

(a) $\Delta_1=3(\Delta_2)^2$ (b) $(d/dx)\Delta_1=3\Delta_2$

(c) $(d/dx)\Delta_1=3\Delta_2^2$ (d) $\Delta_1=3(\Delta_2)^{3/2}$

42. Let $\Delta=\begin{vmatrix}1 & \sin\theta & 1\\ -\sin\theta & 1 & \sin\theta\\ -1 & -\sin\theta & 1\end{vmatrix}$, then Δ lies in the interval –

(a) [3, 4] (b) [2, 4] (c) [1, 4] (d) none

43. The number of common tangents to the circles $x^2+y^2-4x-6y-12=0$ and $x^2+y^2+6x+18y+26=0$ is

(a) 1 (b) 2 (c) 3 (d) 4

44. If n is a multiple of 3, then the coefficient of x^n in the expansion of $\log\left(1+x+x^2\right)is(|x|<1)$

(a) -2/n (b) -1/n (c) 1/n (d) 2/n

45. e is

(a) natural number (b) a rational number

(c) an irrational number (d) an integer

46. AB is a diameter of a circle and C is any point on the circumference of the circle. Then

(a) the area of Δ ABC is max. when it is isosceles

(b) the area of Δ ABC is min. when it is isosceles

(c) the perimeter of Δ ABC is min. when it is isosceles

(d) none of these

47. Let **P**(x) = $a_0+a_1x^2+a_2x^4+\ldots+a_nx^{2n}$ be a polynomial in a real variable x with $0<a_0<a_1<a_2<\ldots..<a_n$. The

function P(x) has
(a) neither a maximum nor a minima
(b) only one maxima
(c) only one maxima and one minima
(d) only one minima

48. The point (0, 5) is closest to the curve $x^2 = 2y$ at
(a) $\left(2\sqrt{2},0\right)$ (b) $(0,0)$ (c) (2,2) (d) none

49. The point on the curve $4x^2 + a^2y^2 = 4a^2, 4 < a^2 < 8$, that is farthest from the point (0, -2) be
(a) (0, -2) (b) (0,2) (c) (1, -2) (d) (1,2)

50. The greatest value of the function $f(x) = \sin 2x / \sin\left(x + (1/4)\pi\right)$ on the interval $[0, \pi/2]$ is
(a) $1/\sqrt{2}$ (b) $\sqrt{2}$ (c) 1 (d) $-\sqrt{2}$

51. $\int x^{-3} 5^{1/x^2} dx = k5^{1/x^2}$, then k =
(a) $-\frac{1}{2\log 5} + c$ (b) -2 log 5+c
(c) $\frac{2}{\log 5} + c$ (d) $\frac{-2}{\log 5} + c$

52. If $f(x) = g(x)$, then $\int f'(x)g(x)dx =$
(a) $\{f(x)\}^2 + c$ (b) $\{g(x)\}^2 + c$
(c) $\frac{1}{2}\{f(x)\}^2 + c$ (d) $\frac{1}{2}\{g(x)\}^2 + c$

53. $\int \frac{4}{3}(x+1)(x+\log x)^3 dx =$
(a) $(x+\log x)^4 + c$ (b) $\frac{1}{4}(x+\log x)^4 + c$
(c) $2(x+\log x)^4 + c$ (d) $(4x+\log x)^4 + c$

54. $\int e^{2x+\log x} dx$ is
(a) $\frac{1}{4}(2x-1)e^{2x} + c$ (b) $\frac{1}{4}(2x+1)e^{2x} + c$
(c) $\frac{1}{2}(2x+1)e^{2x} + c$ (d) $\frac{1}{2}(2x-1)e^{2x} + c$

55. If $\int \log\left(x^2+x\right)dx = x\log\left(x^2+x\right) + A$ then A is
(a) $2x + \log(x+1) +$ constant (b) $2x - \log(x+1) +$ constant
(c) constant (d) none of these

56. The intersection point of $F_1(x) = \int_2^x (2t-5)dt$ and $F_2(x) = \int_0^x 2tdt$ are
(a) $\left(\frac{6}{5}, \frac{36}{25}\right)$ (b) $\left(\frac{2}{3}, \frac{4}{9}\right)$
(c) $\left(\frac{1}{3}, \frac{1}{9}\right)$ (d) $\left(\frac{1}{5}, \frac{1}{25}\right)$

57. Let $f: R \to R$ and $g: R \to R$ are continuous functions then
$\int_{-\pi/2}^{\pi/2} \left[f(x) + f(-x)Ig(x) - g(-x)\right]dx =$
(a) π (b) 1 (c) -1 (d) 0

58. $\int_0^1 \frac{dx}{\left[ax + b(1-x)\right]^2}$ is
(a) $\frac{a}{b}$ (b) $\frac{b}{c}$ (c) ab (d) $\frac{1}{ab}$

59. If f and g are continuous functions in [0, a] which satisfy $f(x) = f(a-x)$ and $g(x) + g(a-x) = 2$, then
$\int_0^a f(x)g(x)dx =$
(a) $\int_0^a f(x)dx$ (b) $\int_a^0 f(x)dx$
(c) $2\int_0^a f(x)dx$ (d) none

60. $\int_0^a x^2\left(2ax - x^2\right)^{5/2} dx =$
(a) $\left[\frac{45\pi}{256} - \frac{2}{7}\right]a^7$ (b) $\left[\frac{45\pi}{256} + \frac{1}{7}\right]a^7$
(c) $\left[\frac{45\pi}{256} - \frac{1}{7}\right]a^7$ (d) none of these

61. $\int_0^1 x^2\left(1-x^2\right)^{3/2} dx =$
(a) $\pi/8$ (b) $\pi/16$ (c) $\pi/32$ (d) none

62. $\lim_{n\to\infty} \sum_{r=0}^{n-1} \frac{1}{\sqrt{n^2 - r^2}} =$
(a) $\pi/4$ (b) $\pi/2$ (c) π (d) 1

63. The maximum value of $\left(\frac{1}{x}\right)^x$ is

(a) $e^{1/e}$ (b) $(1/e)^e$ (c) e^e (d) none

64. Assuming distribution to be Poisson, the probability that at most 5 defective bolts will be found in a box of 200 bolts if it is know that 2% of such bolts are expected to be defective is

(a) $e^{-5}\sum_{i=0}^{5}\frac{4^i}{i!}$ (b) $e^{-4}\sum_{i=0}^{4}\frac{4^i}{i!}$

(c) $e^{-4}\sum_{i=0}^{5}\frac{4^i}{i!}$ (d) none of these

65. Let f : $R \to R$. If the left and right hand limits of the function f are equal at any point but are different from the value of the function there, it is said to be discontinuous of

(a) second type (b) first type
(c) artificial type (d) ordinary type

66. If $y=\frac{2}{\sqrt{a^2-b^2}}\tan^{-1}\left[\frac{\sqrt{a-b}}{a+b}\tan\frac{x}{2}\right]$, then $\frac{d^2y}{dx^2}$ is

(a) $\frac{b\cos x}{(a+b\sin x)^2}$ (b) $\frac{b\sin x}{(a+b\cos x)^2}$

(c) $\frac{b-a}{(a\sin x+b\cos x)^2}$ (d) none of these

67. Standard error of number of successes is given by

(a) $\sqrt{\frac{pq}{n}}$ (b) $\sqrt{npq}$ (c) npq (d) n^2p^2

68. Area bounded by the curve $y^2(2a-x)=x^3$ and the line $x=2a$ is

(a) $3\pi a^2$ (b) $3\pi a^2/2$ (c) $3\pi a^2/4$ (d) none

69. If A is the area between the curves $y=\sin x$ and x-axis in the interval $[0,\pi/4]$, then in the same interval, area between the curve $y=\cos x$ and x-axis is

(a) A (b) $\pi/2-A$ (c) 1-A (d) none

70. Correlation coefficient 0.5 between x and y means that

(a) 50% of data are explained
(b) 25% of data explained
(c) out of total variation of y only 25% is due to x and rest is due to other factors
(d) out of total variation of x only 50% is due to x and rest is due to other factors

71. The value of correlation coefficient γ is 0.917 and value of probable error is 0.034, number of pairs of observation is

(a) 7 (b) 8 (c) 9 (d) 0

72. The probability that a valve manufactured by a company will be defective is 0.1. If 12 such valves are manufactured, the probability of exactly two defective is

(a) 0.284 (b) 0.0043 (c) 1.875 (d) none

73. In a Poisson's distribution P(x) for $x=0$ is 10%. The mean of distribution is

(a) 2.3026 (b) 3.308 (c) 1.875 (d) none

74. The value of K for which the function $Ke^{\left(-1/8x^2+2x\right)}, -\infty<x<\infty$ is a probability density function is

(a) $\frac{e^8}{2\sqrt{2\pi}}$ (b) $\frac{e^{-8}}{2\sqrt{2\pi}}$ (c) $\frac{e^{-4}}{2\sqrt{2\pi}}$ (d) $\frac{e^{-2}}{2\sqrt{2\pi}}$

75. The mean of a Poisson distribution of x which is such that $\sqrt{2}\,p(x\le 1)=p(x\le 2)$ is

(a) 2 (b) $2\sqrt{2}$ (c) $\sqrt{2}$ (d) $\frac{1}{\sqrt{2}}$

76. If $x_1, x_2, \ldots\ldots x_n$ be random sample of size n from a normal distribution with mean zero and variance σ^2 then

(a) $\sum_{i=1}^{n}x_i^2$ is an unbiased statistic for σ^2

(b) $\frac{1}{n}\sum_{i=1}^{n}x_i^2$ is an unbiased statistic for σ^2

(c) n $\sum_{i=1}^{n}x_i^2$ is an unbiased statistics for σ^2 (d) none

77. In case of binomial distribution β_1 is

(a) $(q-p)npq$ (b) $(q-p)np$
(c) $(q-p)/npq$ (d) $npq/(q-p)$

78. $\int \sec^p x\, tax\, x\, dx =$

(a) $\frac{\sec^{p+1}x}{p+1}+c$ (b) $\frac{\sec^p x}{p}+c$

(c) $\frac{\tan^{p+1}x}{p+1}+c$ (d) $\frac{\tan^p x}{p}+c$

79. $\int\frac{dx}{1+x+x^2+x^3}=$

(a) $\log\sqrt{1+x}-\frac{1}{2}\log\sqrt{1+x^2}+\frac{1}{2}\tan^{-1}x+c$

(b) $\log\sqrt{1+x}-\log\sqrt{1+x^2}+\tan^{-1}x+c$

(c) $\log\sqrt{1+x^2}-\log\sqrt{1+x}+\frac{1}{2}\tan^{-1}x+c$

(d) $\log\sqrt{1+x}+\tan^{-1}x+\log\sqrt{1+x^2}+c$

80. $\int \frac{e^{2x}}{\sqrt[4]{e^x+1}}$

(a) $\frac{21}{4}\left(e^x+1\right)^{3/4}\left(3x^x-4\right)$ (b) $\frac{4}{21}\left(e^x+1\right)^{3/4}\left(3e^x-4\right)$

(c) $\frac{4}{21}\left(e^x+1\right)^{1/4}\left(3e^x-4\right)$ (d) none

81. The digital computer which simulates human intelligence belongs to
(a) 2nd Generation (b) 3rd generation
(c) 4th generation (d) 5th generation

82. The most commonly used INTEL chip in personal computers is
(a) Z-80 (b) 6800 (c) 8086 (d) 8087

83. What is an optical input device that interprets pencil marks on paper media
(a) O.M.R. (b) light pen
(c) optical scanner (d) magnetic tape

84. The working principles of today's computers were provided by an English mathematician
(a) Charles Babbage (b) Dr. Hollerit
(c) Donald Reach (d) Ken Reider

85. What is the first and primary task that a computer virus is programmed to execute?
(a) to damage programmes (b) to hide itself in RAM
(c) to clone itself (d) to garble data

86. Computer viruses can multiply and spread from one computer to another by means of
(a) links to network (b) inflected disks
(c) download programmes from a bulletin board
(d) all the above

87. The result of binary division 11100/100 is
(a) 11R1 (b) 111 (c) 111R10 (d) 11

88. The result of hex multiplication EX $\times$ 39 is
(a) 348D (b) 384C (d) 384D (d) 348C

89. Which of the following is true about GOTO statement?
(a) it can have a statement number as a variable
(b) it can transfer control of itself
(c) it cannot transfer control to upward direction
(d) it can transfer control anywhere except to itself

90. Which of the following is an example of a problem – oriented language
(a) COBOL (b) BASIC
(c) FORTRAN (d) none of these

91. The loss incurred in selling an article for Rs. 19 is as much as the profit made when it is sold at 5 percent profit. To get 5% profit what should be its selling price?
(a) 20 (b) 20.50 (c) 19.95 (d) none

92. $\frac{9\times9+5(3)^2}{3\times6-12}$ is equal to
(a) 21 (b) 129 (c) 20 (d) 19

93. L.C.M. of two numbers is 14 times their H.C.F. The sum of the L.C.M. and H.C.F. is 600. If cone number is 280, what is the other number
(a) 160 (b) 60 (c) 80 (d) 40

94. A, B and C enter into a partnership by making investments in the ratio 3: 5: 7. After a year C invests another Rs. 337600 while A withdraws Rs. 45600. The ratio of investments then changes to 24: 59: 167. How much did A invest initially
(a) 15600 (b) 96000 (c) 141600 (d) none

95. 35% of 9/21 is equal to
(a) 25 (b) 15 (c) 1.5 (d) 0.15

96. A's money is to B's money as 4:5 and B's money is to C's money as 2:3. If A has Rs. 800, C has
(a) 1000 (b) 1200 (c) 1500 (d) 2000

97. A man employed 6 skilled men and 14 unskilled men and the average wage was Rs. 11.20 per day. If an unskilled man got two rupees less than a skilled man, what were the daily wage of a skilled man?
(a) 10 (b) 12 (c) 11 (d) 13

98. If A: B =3: 4, B: C = 6 : 9, C : D =12 :19, then A : B : C : D is
(a) 9 : 12 : 16 : 19 (b) 9 : 12 : 18 : 19
(c) 6 : 8 : 12 : 19 (d) 3 : 4 : 8 : 19

99. John invests Rs. X at 4% and Rs. Y at 5% . His annual income is Rs. 230. If he invested Rs. X at 5% and Rs. y at 4%, his annual income would have been Rs. 220. The ratio between x and y is
(a) 22:23 (b) 4:5 (c) 20:21 (d) 2:3

100. The area of the shaded portion is (in cm^2)-
(a) 0.16 (b) 0.06 (c) 0.13 (d) 0.04