BHU MCA 2018 (Actual)

1. Two dice are thrown. The probability of getting an odd number on the first die and multipie of 3 on the other, is:

(a) $\frac{1}{6}$ (b) $\frac{1}{5}$ (c) $\frac{5}{6}$ (d) $\frac{1}{3}$

2. Solution of the inequation given below is:

$$\left|\frac{2}{x-4}\right| > 1, x \neq 4$$

(a) (2, 4) $\cup$ (4, 6) (b) [2, 4)
3) [2, 6] (d) (2, 6)

3. If $y = \log_x 2$,

then $\frac{dy}{dx}$ equal to :

(a) $-\frac{1}{(\log_2 x)^2} \cdot \frac{1}{(x \log_e 2)}$ (b) $(\log_x 2) \cdot \log_e 2$

3) $2\log_x 2 \cdot \left(\frac{\log_e 2}{x}\right)$ (d) $-\frac{1}{(\log_2 x)} \cdot \frac{1}{(x.\log_e 2)}$

4. The quadratic equation $x^2(a^2 + b^2) + 2x(ac + bd) + (c^2 + d^2) = 0$ has no real roots, if

(a) ad = bc (b) ab $\neq$ cd
3) ab=cd (d) ad $\neq$ bc

5. Find the least positive integral value of 'k', if k

$$\begin{bmatrix} \cos\frac{2\pi}{7} & -\sin\frac{2\pi}{7} \\ \sin\frac{2\pi}{7} & \cos\frac{2\pi}{7} \end{bmatrix}^k = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$$

(a) 6 (b) 7 (c) 8 (d) 5

6. If a matrix A is both symmetric and skew-symmetric, then:

(a) A is a diagonal matrix (b) A is a zero matrix
3) A is a square matrix (d) A is a scalar matrix

7. Find the value of x, if

$$\begin{vmatrix} x-2 & 2x-3 & 3x-4 \\ x-4 & 2x-9 & 3x-16 \\ x-8 & 2x-27 & 3x-64 \end{vmatrix} = 0$$

(a) 3 (b) 5 (c) 4 (d) 2

8. If ω is a non-real cube root of unity and n is not a multiple of 3, then

$$\begin{vmatrix} 1 & \omega^n & \omega^{2n} \\ \omega^{2n} & 1 & \omega^n \\ \omega^n & \omega^{2n} & 1 \end{vmatrix}$$ is equal to :

(a) 2n (b) 1 (c) n^2 (d) 0

9. The value of $\int \sin^{-1}(\cos x)dx$, $0 < \frac{\pi}{2}$, is (C being constant of integration):

(a) $\frac{\pi}{2} - x + C$ (b) $-\frac{\sin x}{\sqrt{1-x^2}} + C$

(c) $\frac{\pi}{2}x + \frac{x^2}{2} + C$ (d) $\frac{\pi}{2}x - \frac{x^2}{2} + C$

10. A particle moves along a curve, $6y = x^3 + 2$ such that at some :instant the y-coordinate is changing 8 times as fast as the x-coordinate. The position of the particle at that instant is:

(a) (4, 6) (b) (1,4) (c) (2, 11) (d) (4, 11)

11. If $(a + b)^2x^2 + 8(a^2 - b^2)x + 16(a - b)^2 = 0$, then the value of x is:

(a) $\frac{4(b-a)}{a+b}$ (b) $\frac{4(a-b)}{a+b}$

(c) $\frac{(b-a)}{a+b}$ (d) $\frac{a+b}{a-b}$

12. If the coefficients of three consecutive terms in the expansion of $(1 + x)^n$ are in the ratio 1 : 7 : 42, then value of 'n' is:

(a) 50 (b) 55 (c) 30 (d) 52

13. A rod AB of length 15 cm rests in between two coordinate axis in such a way that the end point A lies on x-axis and end point B lies on y-axis. A point P is taken on the rod in such a way that AP = 6cm. If the locus of P is an ellipse, then its eccentricity(e) is:

(a) $\frac{\sqrt{5}}{3}$ (b) $\frac{5}{3}$ (c) $\sqrt{\frac{117}{81}}$ (d) $\sqrt{\frac{5}{7}}$

14. If $^nC_{15} = {}^nC_8$, then value of $^nC_{21}$ is:

(a) 554 (b) 253 (c) 251 (d) 250

15. If the sum of n terms of an A.P. is $3n^2 + 5n$ then which of its term is 164?

(a) 27th (c) 28th (b) 30th (d) 26th

16. The letters of the word 'RANDOM' are written in all possible orders and these words are written in dictionary. The rank of word "RANDOM" is:

(a) 612 (b) 610 (c) 600 (d) 614

17. The number of terms with integral coefficients in the expansion of $\left(17^{\frac{1}{3}} + 35^{\frac{1}{2}}x\right)^{600}$ is

(a) 100 (b) 301 (c) 101 (d) 200

18. The sum of the series

$$\frac{1}{\log_2 4}+\frac{1}{\log_4 4}+\frac{1}{\log_8 4}+\frac{1}{\log_{16} 4}+.....+\frac{1}{\log_2 n^4}$$

(a) $\frac{n(n+1)}{4}$ (b) $\left[\frac{n(n+1)}{2}\right]^2$

(c) $\frac{n(n+1)(2n+1)}{12}$ (d) $n.\log_2 4$

19. In a flight of 600 Km an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 200 km/hr and the time increased by 30 minutes. Duration of the flight is:

(a) 30 minutes (b) 2 hours
(c) 1 hour 20 minutes (d) 1 hour

20. An arc is in the form of a parabola with its axis vertical and one of its end is at the vertex. The arc is 10m high and 5 m wide at the base. How wide is it 2m from the vertex of parabola?

(a) $\sqrt{\frac{5}{2}}m$ (b) $\frac{\sqrt{5}}{2}m$

(c) $\sqrt{5}\,m$ (d) 2.5 m.

21. If R= {(x, y) : x, $y \in Z, x^2 + y^2 \le 4$} is a relation defined on the set Z of integers, then the domain of R is:

(a) {0, 1, 2, 3, 4} (b) {0, 1, 2}
(c) {1, 2} (d) {– 2, – 1, 0, 1, 2}

22. If 'f' is a function satisfying $f(x+y)=f(x),f(y)$ for all $x, y \in N$ such that f(1) = 3 and $\sum_{x=1}^{n} f(x)=120$ then the value of 'n' is :

(a) 6 (b) 8 (c) 7 (d) 4

23. If $\frac{3+2i\sin\theta}{1-2i\sin\theta}$ is a purely real then the value of θ is (n being integer):

(a) $\theta=\frac{n\pi}{2}$ (b) $\theta=(n+1)\frac{\pi}{2}$

(c) $\theta=n\pi$ (d) $\theta=\frac{\pi}{2}$

24. The coefficient of x^6y^3 in the expansion of $(x + 2y)^9$ is:

(a) 670 (b) 1348 (c) 674 (d) 672

25. The value of

$$\frac{i^{592}+i^{590}+i^{588}+i^{586}+i^{584}}{i^{582}+i^{580}+i^{578}+i^{576}+i^{574}} \text{ is } (i=\sqrt{-1})$$

(a) 0 (b) – 2 (c) 1 (d) – 1

26. The point on the curve $9y^2 = x^3$, where normal to the curve makes equal intercepts with the axes is:

(a) $\left(1,\pm\frac{1}{3}\right)$ (b) $\left(2,\pm\frac{2\sqrt{2}}{3}\right)$

(c) $\left(2,\sqrt{\frac{8}{3}}\right)$ (d) $\left(4,\frac{8}{3}\right)$

27. If B is a matrix, such that

$B,\begin{bmatrix}1 & -2\\ 1 & 4\end{bmatrix}=\begin{bmatrix}6 & 0\\ 0 & 6\end{bmatrix}$, then value of B is

(a) $\begin{bmatrix}4 & 2\\ -1 & 1\end{bmatrix}$ (b) $\begin{bmatrix}4 & 3\\ 2 & 1\end{bmatrix}$

(c) $\begin{bmatrix}4 & -2\\ -1 & 1\end{bmatrix}$ (d) $\begin{bmatrix}4 & -3\\ 2 & -1\end{bmatrix}$

28. The locus of the point which moves so that the sum of its distances from (3, 0) and (– 3, 0) is less than 9, is:

(a) $\frac{x^2}{36}+\frac{y^2}{16}<1$ (b) $36x^2+20y^2<405$

(c) $16x^2+20y^2<399$ (d) $20x^2+36y^2<405$

29. If the third term in the expansion of $\left(\frac{1}{x}+x^{\log_{10}x}\right)^5$ is 1000, then the value of x is :

(a) 21 (b) 50
(c) 100 (d) 10

30. The foci of the hyperbola coincide with the foci of the ellipse $\frac{x^2}{25}+\frac{y^9}{9}=1$. If eccentricity of the hyperbola is 2, then equation of the hyperbola is:

(a) $\frac{x^2}{16}-\frac{y^2}{36}=1$ (b) $\frac{x^2}{12}-\frac{y^2}{4}=1$

(c) $\frac{x^2}{36}-\frac{y^2}{16}=1$ (d) $\frac{x^2}{4}-\frac{y^2}{12}=1$

31. The axes of an ellipse are along the coordinate axes, vertices are at (0, ± 10) and eccentricity e=4/5. The equation of the ellipse is:

(a) $\frac{x^2}{36}+\frac{y^2}{100}=1$ (b) $\frac{x^2}{36}+\frac{y^2}{164}=1$

(c) $\frac{x^2}{164}+\frac{y^2}{36}=1$ (d) $\frac{x^2}{64}+\frac{y^2}{100}=1$

32. Probability of solving a problem of A, B, C are $\frac{1}{3}, \frac{2}{7}$ and $\frac{3}{8}$ respectively. If all the three try to solve the problem simultaneously, find the probability that exactly one of them can solve it.

(a) $\frac{1}{2}$ (b) $\frac{35}{168}$

(c) $\frac{101}{168}$ (d) $\frac{25}{56}$

33. Value of x in the inequation $|x-1|+|x-2| \geq 4$ is

(a) $\left(-\infty, -\frac{1}{2}\right) \cup \left[\frac{7}{2}, \infty\right)$ (b) $\left(-\infty, +\frac{1}{2}\right) \cup \left[\frac{7}{2}, \infty\right)$

(c) $\left(-\infty, -\frac{1}{2}\right)$ (d) $\left[-\frac{1}{2}, \frac{7}{2}\right]$

34. The radius of the circle $25x^2 + 25y^2 - 20x + 2y - 60 = 0$ is

(a) $\frac{\sqrt{464}}{5}$ (b) $\frac{8}{5}$

(c) $\frac{16}{25}$ (d) $\frac{\sqrt{1601}}{25}$

35. The number of diagonals with n-sides polygon is:

(a) $\frac{n(n-2)}{2}$ (b) $\frac{n(n-1)}{2}$

(c) $\frac{n(n-3)}{2}$ (d) $\frac{n(n+1)}{2}$

36. If a line perpendicular to the line segment joining the points (1, 0) and (2, 3) divides in ratio 1 : n, then equation of the line is:

(a) $(n+1)x + 3(n+2)y = n + 10$

(b) $(n+1)x - (n-2)y = n + 11$

(c) $nx + (1+n)y = n + 11$

(d) $(n+1)x + 3(n+1)y = n + 11$

37. A line passes through the point (3, – 2). The locus of the middle point of the portion of the line intercepted between the axis is:

(a) $3x - 2y = 2$ (b) $\frac{2x}{3} + \frac{y}{1} = 1$

(c) $3y - 2x = 2xy$ (d) $3x - 2y = 2xy$

38. If $f : R \to R$ be a function defined by $f(x) = \frac{x^2}{1+x^2}$, then the range of the function is:

(a) R/{1} (b) R (c) $[0, \infty]$ (d) [0, 1)

39. The value of

$\int \frac{x^2+1}{(x+1)^2} dx$ is (C being constant of integration):

(a) $\log|x+1| + \frac{1}{(x+1)^2} + C$

(b) $x - \frac{2}{x+1} + C$

(c) $x - \log|x+1| - \frac{1}{x+1} + C$

(d) $x - 2\log|x+1| - \frac{2}{x+1} + C$

40 The 4th term from the end in the expansion of

$\left(\frac{3}{x^2} - \frac{x^3}{6}\right)^7$ is

(a) $\frac{35}{32}x^5$ (b) $\frac{35}{32}x^6$ (c) $\frac{35}{48}x^6$ (d) $\frac{35}{48}x^5$

41. The sum of all 3-digits numbers which leave the remainder 2, when divided by 3, is:

(a) 154900 (b) 154850

(c) 109900 (d) 164850

42. If $y = \sin^{-1}x + \sin^{-1}\sqrt{1-x^2}$ and $x \in (-1, 0)$ then $\frac{dy}{dx}$ equal to :

(a) $\frac{2}{\sqrt{1-x^2}}$ (b) 0

(c) $-\frac{1}{\sqrt{1-x^2}}$ (d) $\frac{1}{\sqrt{1-x^2}}$

43. If a complex number z is given by $z = \frac{1+7i}{(2-i)^2}$, then:

(a) arg (z) = $-\frac{\pi}{4}$ (b) arg (z) = $\frac{5\pi}{4}$

(c) arg $(z) = \frac{\pi}{4}$ (d) arg $(z) = \frac{3\pi}{4}$

44. If 1(2) = 4 and f'(2) = 1, then value of

$\lim_{x \to 2} \frac{xf(2) - 2f(x)}{x-2}$ is

(a)1 (b) 2 (c) 4 (d) 0

45. How many words can be formed from the letters of the word 'DAUGHTER' so that the vowels are never together?
(a) 4320 (b) 40320 (c) 8! – 6! (d) 36000

46. The value of

$\int_0^{\frac{\pi}{4}} \sqrt{1+\sin 2x}\, dx$ is

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

47. The principal wants to arrange 5 students on the platform such that the boy Salim occupies the second position and the girl Sita is always adjacent to the girl Rita. The number of possible arrangement is:
(a) 8 (b) 4 (c) 10 (d) 5

48. The domain of the function

$f(x)=\sqrt{x-3-2\sqrt{x-4}}\cdot\sqrt{x-3+2\sqrt{x-4}}$ is where 'f' be a real valued function of real variable.
(a) $[2, \infty)$ (b) $(-\infty, 4]$
(c) $[4, -\infty)$ (d) R^+

49. If $x=1+a+a^2+a^3+...\infty, |a|<1$

and $y=1+b+b^2+b^3+...\infty, |b|<1$

then value of $1+ab+a^2b^2+a^3b^3+....\infty$ is ,

(a) xy (b) $\frac{xy}{x+y-1}$ (c) $1+xy$ (d) $\frac{1+xy}{x+y+1}$

50. The eccentricity of the conic $9x^2-16y^2=144$ is

(a) $\frac{\sqrt{7}}{4}$ (b) $\frac{5}{3}$ (c) $\frac{5}{4}$ (d) $\frac{3}{5}$

51. If x > 0, then sum of the infinite series

$\frac{1}{1+x}-\frac{1-x}{(1+x)^2}+\frac{(1-x^2)}{(1+x)^3}-\frac{(1-x)^3}{(1+x)^4}+.....\infty,$ is

(a) $\frac{3}{4}$ (b) 1 (c) $\frac{1}{2}$ (d) 0

52. The value of

$\int e^{2x}\left(\frac{1+\sin 2x}{1+\cos 2x}\right)$ dx is (C being constant of integration):

(a) $\frac{1}{2}e^{2x}\sec^2 x+C$ (b) $e^{2x}\sec^2 x+C$

(c) $e^{2x}\tan x+C$ (d) $\frac{1}{2}e^{2x}\tan x+C$

53. The number of terms in the expansion of

$(1-3x+3x^2-x^3)^8$ is
(a) 24 (b) 25 (c) 26 (d) 32

54. If

$S=1+\frac{1+2}{2}+\frac{1+2+3}{3}+\frac{1+2+3+4}{4}+...n$ terms then the value of 'S' is :

(a) $\frac{n(n+3)}{4}$ (b) $\frac{n(n+1)(2n+1)}{12}$

(c) $\frac{n^2}{2}$ (d) $\frac{n(n+2)}{4}$

55. If n arithmetic means are inserted between 20 and 80 such that the ratio of the first mean to the last mean is 1 : 3, then the value of 'n' is:
(a) 11 (b) 12 (c) 10 (d) 15

56. The sum of all the natural numbers that can be formed with the digits 2, 3, 4, 5 taken all at a time is:
(a) 93240 (b) 93004
(c) 93324 (d) 90002

57. The area bounded by the curves $y^2 = 4x$ and $x^2 = 4y$ is:

(a) $\frac{8}{3}$ sq.units (b) $\frac{16}{3}$ sq.units

(c) $\frac{14}{3}$ sq.units (d) $\frac{3}{14}$ sq.units

58. The length of latus-rectum of the parabola $x^2 – 4x – 8y + 12 = 0$ is:
(a) 4 (b) 8 (c) 10 (d) 2

59. A bag contains 4 red and 4 blue balls. Four balls are drawn one-by-one from the bag, • hen the probability that the drawn balls are in alternate colour, is:

(a) $\frac{1}{35}$ (b) $\frac{9}{31}$ (c) $\frac{6}{35}$ (d) $\frac{7}{31}$

60. If $(x+iy)^{1/3}=a+ib$ x, y, a, b $\in$ R., then $\frac{x}{a}+\frac{y}{b}$ is equal a
(a) a – b (b) 4 ($a^2 + b^2$)
(c) a + b (d) 4($a^2 – b^2$)

61. If Sn denotes the sum of first n terms of the series $S_n = 3 + 7 + 13 + 21 + 31 +$ to n terms, then the value of S_n is:

(a) $\frac{n}{6}(n^2+n+3)$ (b) $\frac{n}{3}(n^2+3n+5)$

(c) $\frac{n^2}{3}(3n+5)$ (d) $\frac{n}{2}(n^2+n+5)$

62. In how many ways 5 boys and 3 girls can be seated in a row so that no two girls are together?

(a) 14400 (b) 7200

(c) 2400 (d) 1440

63. If

$A = \begin{bmatrix} 1 & na \\ 0 & 1 \end{bmatrix}$, then A^n is equal to ($n \in N$)

(a) $\begin{bmatrix} 1 & na \\ 0 & n \end{bmatrix}$ (b) $\begin{bmatrix} 1 & na \\ 0 & 1 \end{bmatrix}$

(c) $\begin{bmatrix} 1 & n^2a \\ 0 & 1 \end{bmatrix}$ (d) $\begin{bmatrix} n & na \\ 0 & 1 \end{bmatrix}$

64. The equation of the smallest degree with the real coefficients having (1 + i) as one o the roots is:

(a) $x^2 + x + 2 = 0$ (b) $x^2 - 2x + 2 = 0$

(c) $x^2 + 2x + 2 = 0$ (d) $x^2 + x + 1 = 0$

65. The equation of the circle passing through (1, 0) and (0, 1) and having the smallest possible radius is:

(a) $x^2 + y^2 + x + y + 1=0$ (b) $x^2 + y^2 + x - y + 1 = 0$

(c) $x^2 + y^2 - x - y = 0$ (d) $x^2 + y^2 + x + y = 0$

66. How many words can be formed by taking 4 letters at a time out of the letters of the word 'MATHEMATICS"?

(a) 2454 (b) 2625 (c) 1698 (d) 1680

67. Out of 9 outstanding students in a college, there are 4 boys and 5 girls. A team of 4 students is to be selected for a quiz programme. Find the probability that two are boys two are girls?

(a) $\frac{11}{21}$ (b) $\frac{10}{21}$ (c) $\frac{2}{63}$ (d) $\frac{20}{41}$

68. Let 'f' be a real valued function defined on a set D F. and given by $f(x) = \frac{1}{\log_{10}(1-x)} + \sqrt{x+2}$. Then the set D is:

(a) $[-2.0] \cup (0, 1)$ (b) $[-2. 1]$

(c) $x \geq 2$ (d) $\{x : x \in R\}$

69. A box contains 5 different red balls and 6 different white balls. In how many ways can 6 balls be selected so that there are at least two balls of each colour?

(a) 400 (b) 525 (c) 625 (d) 425

70. In the first four papers each of 100 marks, Rishi got 95, 72, 73, 83 marks. If he wants an average of greater than or equal to 75 marks and less than 80 marks, the range of marks he should score in the fifth paper, is:

(a) between 70 and 80 marks

(b) between 52 and 77 marks

(c) between 55 and 75 marks

(d) between 60 and 70 marks

71. Set of solutions of the equation $z^2 + |z| = 0$, where z is a complex number (z = x + iy),

(a) {0, i, – i} (b) {0, i, 1}

(c) {0, 1} (d) {0, i, 2i}

72. The probability that at least one of the events A and B occurs is 0.6. If A and B occur simultaneously with probability 0.2, then ($P(\bar{A}) + P(\bar{B})$) is

(a) 1.6 (b) 0.4 (c) 0.8 (d) 1.2

73. The value of

$\int_0^{\frac{\pi}{2}} \sin 2x \log \tan x \, dx$ is

(a) 0 (b) 2π (c) -1 (d) 1

74. In a Geometric Progression (G.P.), if the $(m + n)^{th}$ term is 'p' and $(m-n)^{th}$ term is 'q' then its m th term is:

(a) $\sqrt{pq}$ (b) pq (c) p+q (d) $\frac{1}{2}(p+q)$

75. If

$f(x) = \log\left(\frac{1+x}{1-x}\right)$, then $f\left(\frac{2x}{1+x^2}\right)$ is equal to

(a) $[f(x)]^2$ (b) $2f(x)$ (c) $3f(x)$ (d) $[f(x)]^3$

76. If z = 2 – 3i, then value of $4z^3 - 3z^3 - 169$ is:

(a) 160 (b) 199 (c) 140 (d) 0

77. For a post three persons A, B and C appear in the interview. The probability of A being selected is twice that of B and the probability of B being selected is thrice that of C. The probability of A being selected is:

(a) $\frac{1}{10}$ (b) $\frac{2}{5}$ (c) $\frac{3}{5}$ (d) $\frac{3}{10}$

78. It is given that at x = 1, the function $f(x) = x^4 - 62x^2 + ax + 9$ attains its maximum value on the interval [0, 2], the value of 'a' is:

(a) 120 (b) 119

(c) 140 (d) 100

79. The equation of the parabola, whose vertex is at (2, 1) and directrix is x = y - 1 given by:

(a) $x^2 - 14x = 14xy$

(b) $y^2 = 8x + 1$

(c) $x^2 + 2y^2 - 4x + y = 18$

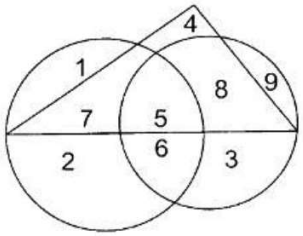
(d) $x^2 + y^2 - 14x + 2y + 2xy + 17 = 0$

80. If $\frac{1}{1-\cos\theta - i\sin\theta}$, , then Re(z) is equal to:

(a) $\cot\frac{\Theta}{2}$ (b) 1

(c) $\frac{1}{2}.\cot\Theta$ (d) $\frac{1}{2}$

Directions (Question Nos.81 to 85): These questions are based on the following diagram in which the triangle represents female graduates. Small circle represents self - employed females having a car and the big circle represents self - employed females 'with bank loan facility. Numbers are shown in the different sections of the diagram. On the bass of these numbers answer the following questions:



81. How many female graduates are not self - employed?
(a) 12 (b) 10 (c) 4 (d) 15

82. How many non - graduate self - employed females are with bank loan facility?
(a) 12 (b) 3 (c) 8 (d) 9

83. How many non - graduate females are self - employed?
1) 11 (b) 21 (c) 9 (d) 12

84. How many self - employed female graduates are with bank loan facility?
(a) 20 (b) 12 (c) 7 (d) 5

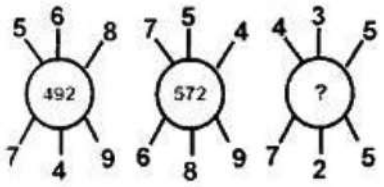
85. How many female graduates are self - employed and having a car?
(a) 20 (b) 12 (c) 13 (d) 15

Directions (Question Nos.86 to 95): Which number should come in place of question mark (?) in the following questions.

86.

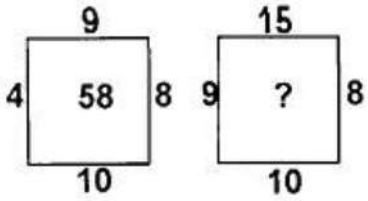
(a) 14 (b) 20 (c) 13 (d) 21

87.



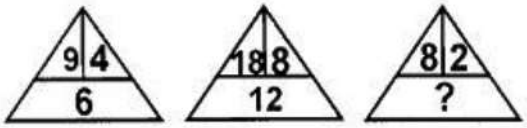
(a) 130 (b) 140
(c) 135 (d) 115

88.



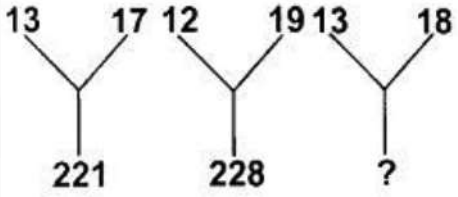
(a) 78 (b) 117
(c) 63 (d) 100

89.



(a) 6 (b) 5
(c) 4 (d) 7

90.



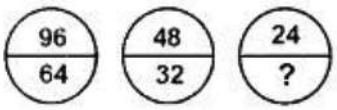
(a) 229 (b) 234
(c) 31 (d) 312

91.

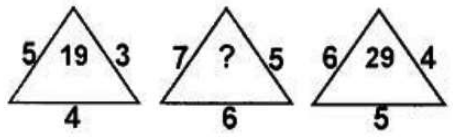
1	7	9
2	14	?
3	105	117

(a) 26 (b) 16
(c) 20 (d) 12

92.



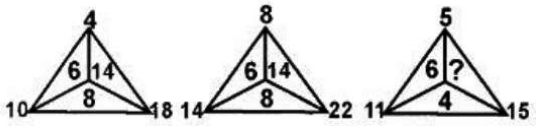
(a) 16 (b) 21
(c) 8 (d) 10

93. 

(a) 41 (b) 47
(c) 25 (d) 37

94. 

(a) 18 (b) – 30
(c) 13 (d) 30

95. 

(a) 8 (b) 14
(c) 6 (d) 10

96. Letters of which of the alternative answers when placed at the blank places one after another will complete the given letter - series? a_bbc_aab_cca_bbcc

(a) c a b a (b) b a c b
(c) a b b a (d) a c b a

Directions (Question Nos.97 to 101): In each of the following questions one Number-serves is given in which one term wrong. Find out the wrong term.

97. 5, 12, 19, 33, 47, 75, 104

(a) 75 (b) 47
(c) 104 (d) 33

98. 0, 3, 8, 15, 24, 36, 48

(a) 24 (b) 15
(c) 36 (d) 48

99. 8, 36, 149, 596, 2388,9556

(a) 9556 (b) 149
(c) 2388 (d) 596

100. 4, 11, 21, 34, 49, 69, 91

(a) 49 (b) 21
(c) 3 (d) 69

101. 5, 7, 11, 20, 35, 67

(a) 67 (b) 35
(c) 20 (d)11

Directions (Question Nos.102 to 105): Read the following information carefully and answer the questions given below:

Ravi and Kunal are good in Hockey and Volleyball. Sachin and Ravi are good in Hockey and baseball. Gaurav and Kunal are good in Cricket and Volleyball. Sachin, Gaurav and Michael are good is Football and Baseball.

102. Who is good in Baseball, Cricket, Volleyball and Football?

(a) Ravi (b) Gaurav
(c) Kunal (d) Sachin

103. Who is good in Hockey, Cricket and Volleyball?

(a) Ravi (b) Sachin
(c) Kunal (d) Gaurav

104. Who is good in Hockey, Baseball and Football?

(a) Gaurav (b) Sachin
(c) Kunal (d) Ravi

105. Who is good in Baseball, Volleyball and Hockey?

(a) Sachin (b) Gaurav
(c) Kunal (d) Ravi

106. If in a class of 37 students the places of Anuradha and Saroj are 10th and 16th respectively, what are their places from the last?

(a) 27^{th} and 21^{st} (b) 28^{th} and 22^{nd}
(c) 28^{th} and 20^{th} (d) 27^{th} and 22^{nd}

Directions (Question Nos.107 to 110): In each of the following questions, a statement/group of statements is given followed by some conclusions, choose the conclusion which logically follows from the given statements.

107. Statements:

a. Processed meat is a perishable food.
b. All perishable foods are packed in sealed tins.
c. Sealed tins some times do not contain processed meat.

Conclusions:

(a) Non - perishable foods are never packed in sealed tins.
(b) Sealed tins always contain perishable food.
(c) Processed meat is sometimes not packed in sealed tins.
(d) Processed meat is always packed in sealed tins.

108. Statements:

1. All members of Mohan's family are honest.
2. Some members of Mohan's family are not employed.
3. Some employed persons are not honest.
4. Some honest persons are not employed.

Conclusions:

(a) The honest members of Mohan's family are not employed.
(b) The employed members of Mohan's family are honest.
(c) The employed members of Mohan's family are not honest.
(d) All members of Mohan's family are employed.

109. Statements:

1. I watch T.V. only if I am bored.
2. I am never bored when I have my brother's company.
3. Whenever I go to the theatre I take my brother along.

Conclusions:

(a) If I am not bored, I do not watch T.V.
(b) If I am not with my brother then I watch T.V.
(c) If I am bored, I watch T.V.
(d) If I am bored, I seek my brother's company.

110. Statements:

1. Only students can participate in the race.
2. Some participants in the race are females.
3. All female participants in the race are invited for coaching.

Conclusions:

(a) All participants in the race are males
(b) All participants in the race are invited for coaching.
(c) All participants in the race are student
(d) All students are invited for students. coaching.

Directions (Question Nos.111 to 113): In each of the following problems, there is ore question and three statements I, II and III given below the question. You have to decide whether the data given in the statements is sufficient. to answer the question. Read all the statements carefully and find out that probable pair which can be sufficient to answer the question. Any one such alternative which contains the statement or a pair of statements sufficient to answer the question, will be your answer. For example, if only statement I is sufficient to answer the question, then statements I and II together should rot be accepted as answer to the question. Remember out of the three statements, each of them alone car also be sufficient to answer the question. In such cases for example, your answer should be taken as Only I or Only II or only HI and not only I.

111. Pankaj is younger than Sunita and Rupali is older than Tom. Who among them is the oldest?

I. Rupali is older than Pankaj

II. Sunita is older than Rupali.

III. Tom is youngest among all.

(a) I, II and III all together (b) Only II
(c) Only III (d) I & II together

112. Five persons - A,B,C,D and E are sitting in a row. Who is sitting in the middle?

I. B is between E and C
II. B is to the right of E.
III. D is between A and E.

(a) II and III together (b) I and II together
(c) I, II and III together (d) I and III together

113. What does 'come' represent in a code language?

I. 'pit na tac' means 'come and go' in that code language.
II. 'ja ta da' means 'you are good' in that code language.
III. 'na da rac' means 'you can come' in that code language.

(a) I, II and III all together (b) I and III together
(c) II and III together (d) I and II together

114. If the following words are arranged in the dictionary order then which will be the last :word?

(a) Drench (b) Dredge
(c) Dread (d) Dream

115. As a 'Shirt' is related to 'Cloth' in the same way 'Chair' is related to what?

(a) Weaving (b) Sit
(c) Repairing (d) Wood

116. Statement: "Some kings are not beggars. "If this fact is false then which of the following conclusions is false:

Conclusions:

I All kings are beggars.
II Some beggars are king.
III Some kings are beggars.
IV All beggars are king.
V No king is beggar.

(a) Only I and IV
(b) Only II and III
(c) All
(d) Only V

117. As 'Earthquake' is related to 'Earth', similarly 'Thundering' is related to what?

(a) Sea (b) Sky
(c) Earth (d) Fair

118. In the following question one word is different from the rest. Find out the word Ouch does not belong to the group.

(a) Sun (b) Sky
(c) Moon (d) Star

119. In the following series, find the term in place of question - mark (?) - 3, 8, 27, 112, 565,?

(a) 3396 (b) 1596
(c) 2266 (d) 3400

120. As 'Author' is related to 'Writing', similarly 'Thief' is related to what?

(a) To steal (b) To night
(c) To wonder (d) To feel

BHU MCA 2018 (Actual)

1. (a)	2. (a)	3. (a)	4. (d)	5. (b)	6. (b)	7. (c)	8. (d)	9. (d)	10. (d)
11. (a)	12. (b)	13. (a)	14. (b)	15. (a)	16. (d)	17. (c)	18. (a)	19. (d)	20. (c)
21. (d)	22. (d)	23. (c)	24. (d)	25. (d)	26. (d)	27. (a)	28. (d)	29. (c)	30. (d)
31. (a)	32. (d)	33. (a)	34. (d)	35. (c)	36. (d)	37. (c)	38. (d)	39. (d)	40. (c)
41. (d)	42. (b)	43. (d)	44. (b)	45. (d)	46. (a)	47. (a)	48. (c)	49. (b)	50. (c)
51. (c)	52. (d)	53. (b)	54. (a)	55. (a)	56. (c)	57. (b)	58. (b)	59. (c)	60. (d)
61. (b)	62. (a)	63. (c)	64. (b)	65. (c)	66. (a)	67. (b)	68. (a)	69. (d)	70. (b)
71. (a)	72. (d)	73. (a)	74. (a)	75. (b)	76. (d)	77. (c)	78. (a)	79. (d)	80. (d)
81. (c)	82. (d)	83. (b)	84. (b)	85. (c)	86. (a)	87. (a)	88. (a)	89. (c)	90. (b)
91. (d)	92. (a)	93. (a)	94. (d)	95. (d)	96. (d)	97. (c)	98. (c)	99. (b)	100. (a)
101. (c)	102. (b)	103. (c)	104. (b)	105. (d)	106. (b)	107. (c)	108. (b)	109. (a)	110. (d)
111. (b)	112. (a)	113. (b)	114. (a)	115. (d)	116. (d)	117. (b)	118. (b)	119. (a)	120. (a)

BHU MCA 2018 (Actual)

1. (a)	2. (a)	3. (a)	4. (d)	5. (b)	6. (b)	7. (c)	8. (d)	9. (d)	10. (d)
11. (a)	12. (b)	13. (a)	14. (b)	15. (a)	16. (d)	17. (c)	18. (a)	19. (d)	20. (c)
21. (d)	22. (d)	23. (c)	24. (d)	25. (d)	26. (d)	27. (a)	28. (d)	29. (c)	30. (d)
31. (a)	32. (d)	33. (a)	34. (d)	35. (c)	36. (d)	37. (c)	38. (d)	39. (d)	40. (c)
41. (d)	42. (b)	43. (d)	44. (b)	45. (d)	46. (a)	47. (a)	48. (c)	49. (b)	50. (c)
51. (c)	52. (d)	53. (b)	54. (a)	55. (a)	56. (c)	57. (b)	58. (b)	59. (c)	60. (d)
61. (b)	62. (a)	63. (c)	64. (b)	65. (c)	66. (a)	67. (b)	68. (a)	69. (d)	70. (b)
71. (a)	72. (d)	73. (a)	74. (a)	75. (b)	76. (d)	77. (c)	78. (a)	79. (d)	80. (d)
81. (c)	82. (d)	83. (b)	84. (b)	85. (c)	86. (a)	87. (a)	88. (a)	89. (c)	90. (b)
91. (d)	92. (a)	93. (a)	94. (d)	95. (d)	96. (d)	97. (c)	98. (c)	99. (b)	100. (a)
101. (c)	102. (b)	103. (c)	104. (b)	105. (d)	106. (b)	107. (c)	108. (b)	109. (a)	110. (d)
111. (b)	112. (a)	113. (b)	114. (a)	115. (d)	116. (d)	117. (b)	118. (b)	119. (a)	120. (a)

BHU MCA 2018 (Actual)

1. (a)	2. (a)	3. (a)	4. (d)	5. (b)	6. (b)	7. (c)	8. (d)	9. (d)	10. (d)
11. (a)	12. (b)	13. (a)	14. (b)	15. (a)	16. (d)	17. (c)	18. (a)	19. (d)	20. (c)
21. (d)	22. (d)	23. (c)	24. (d)	25. (d)	26. (d)	27. (a)	28. (d)	29. (c)	30. (d)
31. (a)	32. (d)	33. (a)	34. (d)	35. (c)	36. (d)	37. (c)	38. (d)	39. (d)	40. (c)
41. (d)	42. (b)	43. (d)	44. (b)	45. (d)	46. (a)	47. (a)	48. (c)	49. (b)	50. (c)
51. (c)	52. (d)	53. (b)	54. (a)	55. (a)	56. (c)	57. (b)	58. (b)	59. (c)	60. (d)
61. (b)	62. (a)	63. (c)	64. (b)	65. (c)	66. (a)	67. (b)	68. (a)	69. (d)	70. (b)
71. (a)	72. (d)	73. (a)	74. (a)	75. (b)	76. (d)	77. (c)	78. (a)	79. (d)	80. (d)
81. (c)	82. (d)	83. (b)	84. (b)	85. (c)	86. (a)	87. (a)	88. (a)	89. (c)	90. (b)
91. (d)	92. (a)	93. (a)	94. (d)	95. (d)	96. (d)	97. (c)	98. (c)	99. (b)	100. (a)
101. (c)	102. (b)	103. (c)	104. (b)	105. (d)	106. (b)	107. (c)	108. (b)	109. (a)	110. (d)
111. (b)	112. (a)	113. (b)	114. (a)	115. (d)	116. (d)	117. (b)	118. (b)	119. (a)	120. (a)

BHU MCA 2018 (Actual)

1. (a)	2. (a)	3. (a)	4. (d)	5. (b)	6. (b)	7. (c)	8. (d)	9. (d)	10. (d)
11. (a)	12. (b)	13. (a)	14. (b)	15. (a)	16. (d)	17. (c)	18. (a)	19. (d)	20. (c)
21. (d)	22. (d)	23. (c)	24. (d)	25. (d)	26. (d)	27. (a)	28. (d)	29. (c)	30. (d)
31. (a)	32. (d)	33. (a)	34. (d)	35. (c)	36. (d)	37. (c)	38. (d)	39. (d)	40. (c)
41. (d)	42. (b)	43. (d)	44. (b)	45. (d)	46. (a)	47. (a)	48. (c)	49. (b)	50. (c)
51. (c)	52. (d)	53. (b)	54. (a)	55. (a)	56. (c)	57. (b)	58. (b)	59. (c)	60. (d)
61. (b)	62. (a)	63. (c)	64. (b)	65. (c)	66. (a)	67. (b)	68. (a)	69. (d)	70. (b)
71. (a)	72. (d)	73. (a)	74. (a)	75. (b)	76. (d)	77. (c)	78. (a)	79. (d)	80. (d)
81. (c)	82. (d)	83. (b)	84. (b)	85. (c)	86. (a)	87. (a)	88. (a)	89. (c)	90. (b)
91. (d)	92. (a)	93. (a)	94. (d)	95. (d)	96. (d)	97. (c)	98. (c)	99. (b)	100. (a)
101. (c)	102. (b)	103. (c)	104. (b)	105. (d)	106. (b)	107. (c)	108. (b)	109. (a)	110. (d)
111. (b)	112. (a)	113. (b)	114. (a)	115. (d)	116. (d)	117. (b)	118. (b)	119. (a)	120. (a)