



(Best COACHING for MCA ENTRANCE in INDIA)

Solved Paper 2014

NIMCET

Mathematics

- 1. A password consists of two alphabets from English followed by three digits chosen from 0 to 3. Repetitions are allowed. The number of different passwords is
 - (a) ${}^{25}P_1$, ${}^{25}P_2$, 4P_1 , 3P_1 , 2P_1
- (b) $(^{26}P_1)^2, (^4P_1)^3$
- (c) ${}^{26}P_1$, ${}^{26}P_2$, 4P_1 , 4P_2 , 4P_3 (d) $({}^{26}P_1 \cdot {}^4P_1)^2$
- 2. An equilateral triangle is inscribed in the parabola $y^2 = 4\alpha x$ such that one of the vertices of the triangle coincides with the vertex of the parabola. The length of the side of the triangle is
 - (a) a√3

- (b) 2a√3
- (c) 4a√3
- (d) 8a√3
- 3. A chain of video stores sells three different brands of DVD players. Of its DVD player sales 50% are brand 1, 30% are brand 2 and 20% are brand 3. Each manufacturer offers one year warranty on parts and labour. It is known that 25% of brand 1 DVD players work, warranty repair whereas corresponding percentage for brands 2 and 3 are 20% and 10% respectively. The probability that a randomly selected purchaser has a DVD player that will need repair while under warranty, is
 - (a) 0.795
- (c) 0.1250
- (d) 0.060
- **4.** The locus of intersection of two lines $\sqrt{3}x y = 4k\sqrt{3}$ and $k(\sqrt{3}x + y) = 4\sqrt{3}$ for different values of k is a hyperbola. The eccentricity of the hyperbola is
 - (a) 1.5
- (b) $\sqrt{3}$
- (c) 2
- 5. Constant forces $\mathbf{P} = 2\hat{\mathbf{i}} 5\hat{\mathbf{j}} + 6\hat{\mathbf{k}}$ and $\mathbf{Q} = -\hat{\mathbf{i}} + 2\hat{\mathbf{j}} \hat{\mathbf{k}}$ act on a particle. The work done when the particle is displaced from A whose position vector is $4\hat{\mathbf{i}} - 3\hat{\mathbf{j}} - 2\hat{\mathbf{k}}$ to B whose position vector is $6\hat{\mathbf{i}} + \hat{\mathbf{j}} - 3\hat{\mathbf{k}}$, is
 - (a) 10 units
- (b) 15 units
- (c) 50 units
- **6.** The value of $\int \sqrt{x} e^{\sqrt{x}} dx$ is equal to

(a)
$$2\sqrt{x} - e^{\sqrt{x}} - 4\sqrt{x}e^{\sqrt{x}} + C$$
 (b) $(2x - 4\sqrt{x} + 4)e^{\sqrt{x}} + C$

(b)
$$(2x - 4\sqrt{x} + 4)e^{x/x} + 6$$

(c)
$$(2x + 4\sqrt{x} + 4)e^{\sqrt{x}} + C$$
 (d) $(1 - 4\sqrt{x})e^{\sqrt{x}} + C$

(d)
$$(1 - 4\sqrt{x}) e^{\sqrt{x}} + 0$$

- 7. For the vector $\mathbf{a} = -4\hat{\mathbf{i}} + 2\hat{\mathbf{j}}$, $\mathbf{b} = 2\hat{\mathbf{i}} + \hat{\mathbf{j}}$ and $\mathbf{c} = 2\hat{\mathbf{i}} + 3\hat{\mathbf{j}}$, if c = m a + n b, then the value of m + n is

- 8. The value of $\int_0^{\pi/4} \log (1 + \tan x) dx$ is equal to
 - (a) $\frac{\pi}{4}$ log2
- (b) $\frac{\pi}{6}$ log 2
- (c) $\frac{\pi}{2}$ log2
- (d) $\frac{\pi}{2}$ log2
- 9. The number of ways in which 5 days can be chosen each of the 12 months of a non-leap year, is

- $\begin{array}{ll} \text{(a)} \ (^{30}C_5)^4 (^{31}C_5)^7 (^{28}C_5) & \text{(b)} \ (^{30}C_5)^6 (^{28}C_5)^6 \\ \text{(c)} \ (^{30}C_5)^7 (^{31}C_5)^4 (^{28}C_5) & \text{(d)} \ (^{30}C_5)^6 (^{31}C_5)^6 (^{28}C_5) \end{array}$
- 10. If [x] represents the greatest integer not exceeding x, then $\int_0^{9} [x] dx$ is
 - (a) 32

(b) 36

(c) 40

- (d) 28
- 11. In a group of 200 students, the mean and standard deviation of scores were found to be 40 and 15, respectively. Later on it was found that two scores 43 and 35 were misread as 34 and 53, respectively. The corrected mean of scores is
 - (a) 40.95
- (b) 39.0
- (c) 39.95
- (d) 43
- 12. If the matrix $\begin{bmatrix} -1 & 3 & 2 \\ 1 & K & -3 \\ 1 & 4 & 5 \end{bmatrix}$ has an inverse matrix, then

the value of K is

- (a) K is any real number
- (b) $K \neq -4$
- (c) K = -4
- (d) $K \neq 4$
- 13. The mean deviation from the mean of the AP a, a + d, a + 2d, ..., a + 2nd is
- (b) $\frac{n(n+1)}{2n+1}d$
- (c) $\frac{n+1}{2n+1}d$
- (d) $\frac{n(n+1)}{2n+1}d$





(Best COACHING for MCA ENTRANCE in INDIA)

NIMCET Solved Paper 2014

14. If (x_0, y_0) is the solution of the following equations:

$$(2x)^{\ln 3} = (3y)^{\ln 3}$$

$$3^{\ln x} = 2^{\ln y}$$

Then, x_0 is

(a)
$$\frac{1}{6}$$

(b)
$$\frac{1}{2}$$

(c)
$$\frac{1}{2}$$

- (d) 6
- 15. The value of tan1° tan2° tan3° ... tan89° is

(c) 1

- **16.** If α and β are the roots of the equation $2x^2 + 2px + p^2 = 0$ where, p is a non-zero real number and α^4 and β^4 are the roots of $x^2 - rx + s = 0$, then the roots $2x^2 - 4p^2x + 4p - 2r = 0$ are
 - (a) real and unequal
 - (b) equal and zero
 - (c) imaginary
 - (d) equal and non-zero
- 17. The number of ways to arrange the letters of the English alphabet, so that there are exactly 5 letters a and b, is

- (b) ²⁴ P₅ 20!
- (c) $^{24}P_52012$
- (d) ²⁴P_c 24! 2
- 18. Suppose, the system of linear equations

$$-2x + v + z = l$$

$$x-2y+z=m$$

$$x + y - 2z = n$$

is such that l+m+n=0. Then, the system has

- (a) a rion-zero unique solution (b) trivial solution
- (c) infinitely many solutions
- (d) no solution
- **19.** $\mathbf{A} = 4\hat{\mathbf{i}} + 3\hat{\mathbf{j}} + \hat{\mathbf{k}}$, $\mathbf{B} = 2\hat{\mathbf{i}} \hat{\mathbf{j}} + 2\hat{\mathbf{k}}$ then the unit vector $\hat{\mathbf{N}}$ perpendicular to vector A and B such that A, B, N form a right handed system, is
 - (a) $-\frac{1}{\sqrt{185}} [7\hat{\mathbf{i}} 6\hat{\mathbf{j}} 10\hat{\mathbf{k}}]$ (b) $\frac{1}{7} [6\hat{\mathbf{i}} + 2\hat{\mathbf{j}} + 3\hat{\mathbf{k}}]$

 - (c) $\frac{1}{\sqrt{24}} [2\hat{\mathbf{i}} + 4\hat{\mathbf{j}} \hat{\mathbf{k}}]$ (d) $\frac{1}{\sqrt{24}} [-2\hat{\mathbf{i}} 4\hat{\mathbf{j}} + \hat{\mathbf{k}}]$
- **20.** The value of $\int \frac{(x+1)}{x(xe^x+1)} dx$ is equal to
 - (a) $\log \frac{1 + xe^x}{1 + xe^x} + C$
- (b) $\log [xe^{x}(1 + xe^{x})] + C$
- (c) $\log \left[\frac{1}{1 + xe^x} \right] + C$ (d) $\log \left| \frac{xe^x}{1 + xe^x} \right| + C$
- 21. The sum of two vectors a and b is a vector c such that $|\mathbf{a}| = |\mathbf{b}| = |\mathbf{c}| = 2$. Then, the magnitude of $\mathbf{a} - \mathbf{b}$ is equal to
 - (a) 2√3
- (b) 2

(c) $\sqrt{3}$

(d) 0

22. If x andy are positive real numbers satisfying the system of equations

$$x^2 + y\sqrt{xy} = 336$$
, $y^2 + x\sqrt{xy} = 112$, then $x + y$ is

(c) 20

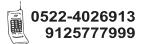
- (c) 40
- 23. From three collinear points A, B and C on a level ground which can be on the same side of a tower, the angles of elevation of the top of the tower are 30°, 45° and 60°, respectively. If BC = 60 m, then AB is
 - (a) 15√3 m
- (b) 30√3 m
- (c) 45√3 m
- (d) $60\sqrt{3}$ m
- **24.** If x = 1 is the directrix of the parabola $y^3 = kx 8$, then k is
 - (a) $\frac{1}{8}$

- **25.** If $\sin x + a \cos x = b$, then $|a \cdot \sin x \cos x|$ is
 - (a) $\sqrt{a^2 + b^2 + 1}$
- (b) $\sqrt{a^2 b^2 + 1}$
- (c) $\sqrt{a^2 + b^2 1}$
- (d) None of the above
- **26.** A condition that $x^3 + ax^2 + bx + c$ may have no extremum is
 - (a) $a^2 \ge 3b$
- (b) $b^2 < 3a$
- (c) $a^2 < 3b$
- **27.** If n and r are integers such that $1 \le r \le n$, then the value of $n \, (^{n-1}C_{r-1})$ is
 - (a) "C,
- (b) r("C_c)
- (c) $n(^{n}C_{+})$
- (d) $(n-1)(^{n}C_{n})$
- **28.** If the foci of the ellipse $b^2x^2 + 16y^2 = 16b^2$ and the hyperbola $81x^2 - 144y^2 = \frac{81 \times 144}{25}$ coincide, then the value of b is
 - (a) 1
- (b) √5
- (c) √7
- (d) 3
- 29. There are 8 students appearing in an examination of which 3 have to appear in Mathematics paper and the remaining 5 in different subjects. Then, the number of ways they can be made to sit in a row, if the candidates in Mathematics cannot sit next to each other is
- (c) 4200
- **30.** If x is so small that x^2 and higher powers of x can be neglected, then $\frac{(9+2x)^{1/2}(3+4x)}{(1-x)^{1/5}}$ is approximately equal

- (a) $9 + \frac{74}{15}x$

- the sets A and B are 31. If $A = \{ (x, y) \mid y = 1/x, 0 \neq x \in R \}, \quad B = \{ (x, y) \mid y = -x \in R \}$
 - (a) $A \cap B = \phi$
- (b) $A \cap B = B$
- (c) $A \cap B = A$
- (d) None of these







(Best COACHING for MCA ENTRANCE in INDIA)

32. If A, B and C is three angles of a $\triangle ABC$, whose area is \triangle . Let a, b and c be the sides opposite to the angles A, B and C respectively. If $s = \frac{a+b+c}{2} = 6$, then the product

$$\frac{1}{3}s^2(s-a)(s-b)(s-c)$$
 is equal to

- (a) 2A
- (b) 2Δ² (c) √2Δ

33. A normal to the curve $x^2 = 4y$ passes through the point (1,2). The distance of the origin from the normal is

- (a) √2
- (b) $2\sqrt{2}$

- **34.** Suppose r integers, 0 < r < 10, are chosen from (0, 1, 2)...,9) at random and with replacement. The probability that no two are equal, is
- (b) $\frac{10!}{10!(10-r)!}$
- (c) $\frac{10!}{\ell!(10-\ell)!}$
- (d) $\frac{10!}{10! (10 r)!}$
- **35.** If $x^2 + 2\alpha x + 10 3\alpha > 0$ for all $x \in IR$, then
 - (a) 5 < a < 2
- (b) a < -5
- (c) a > 5
- 36. A box contains 3 coins, one coin is fair, one coin is two headed and one coin is weighted, so that the probability of heads appearing is $\frac{1}{3}$. A coin is selected at random and

tossed, then the probability that head appears, is

- (a) $\frac{11}{18}$
- (b) $\frac{7}{18}$
- (c) $\frac{1}{2}$
- 37. If a vector a makes an angle with the coordinate axes and has magnitude 3, then the angle between a and each of the three coordinate axes is

38. If
$$f(x) = \begin{cases} \frac{\sin[x]}{[x]}, & [x] \neq 0 \\ 0, & [x] = 0 \end{cases}$$
, where $[x]$ is the largest integer

but not larger than x, then $\lim_{x\to 0} f(x)$ is

(a) -1

(c) 1

- (d) Does not exist
- **39.** If $\tan A \tan B = x$ and $\cot B \cot A = y$, then $\cot (A B)$ is equal to
 - (a) $\frac{1}{x} + \frac{1}{y}$

- **40.** If $a = \log_{12} 18$, $b = \log_{24} 54$, then ab + 5(a b) is
 - (a) 1

(c) 2

(b) 0 (d) $\frac{3}{5}$

- 41. A student takes a quiz consisting of 5 multiple choice questions. Each question has 4 possible answers. If a student is guessing the answer at random and answer to different are independent, then the probability of atleast one correct answer is
 - (a) 0.237
- (b) 0.00076
- (c) 0.7623
- (d) 1
- **42.** The condition that the line lx + my + n = 0 becomes a tangent to the ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$, is
- (c) al + bm = n
- (d) $a^2J^2 + b^2m^2 = n^2$

NIMCET Solved Paper 2014

- 43. The value of sin 20° sin 40° sin 80° is
- (b) $\frac{\sqrt{3}}{2}$ (c) $\frac{\sqrt{3}}{2}$
- 44. Two non-negative numbers whose sum is 9 and the product of the one number and square of the other number is maximum, are
 - (a) 5 and 4
- (b) 3 and 6
- (c) 1 and 8
- (d) 7 and 2
- **45.** The median AD of $\triangle ABC$ is bisected at E and BE is produced to meet the side AC at F. Then, AF : FC is
 - (a) 2;1
- (b) 1:2
- (c) 3 : 1
- **46.** If PQ is a double ordinate of the hyperbola $\frac{x^2}{x^2} \frac{y^2}{x^2} = 1$ such that OPQ is an equilateral triangle, where O is the centre of the hyperbola, then which of the following is true?
 - (a) $b^2 > \frac{-a^2}{\sqrt{3}}$
- (b) $b^2 > \frac{a^2}{a}$
- (d) $b^2 < \frac{-a^2}{a}$
- 47. In $\triangle ABC$, if a=2, b=4 and $\angle C=60^{\circ}$, then A and B are respectively equal to
 - (a) 90°, 30°
- (b) 45°, 75°
- (c) 60°, 60°
- (d) 30°, 90°

48. If
$$\int \frac{xe^x}{\sqrt{1+e^x}} dx = f(x)\sqrt{1+e^x} - 2\log \frac{\sqrt{1+e^x}}{\sqrt{1+e^x}} + C$$
, then $f(x)$

- (a) 2x 1(b) 2x - 4
- (c) x + 4
- (d) x 4
- 49. The average marks of boys in a class is 52 and that of girls is 42. The average marks of boys and girls combined is 50. The percentage of boys in the class is
 - (a) 80%
- (b) 60%
- (c) 40%
- (d) 20%
- 50. How many even integers between 4000 and 7000 have four different digits?
 - (a) 672
- (b) 840

(c) 504

(d) 72B



(Best COACHING for MCA ENTRANCE in INDIA)

NIMCET Solved Paper 2014

51. A road network has parallel roads, which are equidistant from each other and running North-South for Best-West only. The road junctions A. B. C. H. and South-East of X. Which of the junctions are the farthest South. and the farthest East? (a) H. B. (b) H. C. (c) C. H. (d) B. H. 52. Pour players A. B. C. and D have to form into two pairs, however, no pair can play together more than sevent times in a row A and B have played seven games in a row. C and D have three in a new. C does not to work with A. Who should play with B? (a) A. (b) D. (c) Carnot be determined. (b) Carnot be determined. 53. If ROSE is coded as 6821, CHAR is coded as 73456 and FREACH is coded as 961478, then the code of SBAECH is [a] 216473 (b) 214873 (c) 214753 (d) 246175 (e) 214753 (d) 246175 (e) 214753 (d) 246175 (e) 214753 (d) 246175 (e) 21476 (e		1			100			
from each other and running North-South or East-West only. The road junctions A, B, C, H and X are such that A is East of B and West of C. H is South-West of C and South-East of B. B is South-Sast of X. Which of the junctions are the farthest South, and the farthest East? (a) H. B (b) H. C (c) C. H (d) B. H (e) H. C (e) C. H (d) B. H (e) H. C (e) C. H (d) B. H (e) H. C (e) C. H (d) B. H (e) C. C (e) Cand D have three in a row. C and D have three in a row. C does not to work with A. Who should play with B? (e) C (e) Carnot be determined for C. H. A. C (e) C. C (e) C			Ana	lytical	Ability &	L	ogical Reason	ing
however, no pair can play together more than seven times in a row And B have played seven games in a row. C and D have three in a row. C does not to work with A. Who should play with B? (a) A (b) C (c) C (d) Cannot be determined 53. If ROSE is coded as 6821, CHAIR is coded as 73456 and PREACH is coded as 961473, then the code for SEARCH is (a) 216473 (b) 214673 (c) 214753 (d) 246173 Directions [Q. Nos. 54 to 56] Cricket clubs in five towns A, B, C, D and E have one team each named P, Q, R, S and T, not necessarily in the same order. The team in A has besten R, P and S. Q has beaten the team in E, C and A. Team R is in B and the team in C is not S. Where is the team Q? (a) A (b) B (c) C (d) D 55. Where is the team R? (a) P (b) Q (c) S (b) T Find the number that comes next in the series 120, 99, 80, 63, 48,	51.	from each of only. The ros is East of B South-East junctions are	ther and runniad junctions A and West of of B. B is So the farthest	ing North-Sou , B, C, H and X C. H is South outh-East of X South. and the	th or East-West Are such that A 1-West of C and K. Which of the e farthest East?		Five boys A, B, C, D, E at standing in two rows facin the order. E is not at any right of B and D is to the facing P. There are as ma between R and S. A is second	nd five girls P, Q, R, S, T are g each other not necessarily in v ends. C is to the immediate e immediate left of A, who is any girls between P and Q as
times in a row A and B have played seven games in a row. C and D have three in a row. C does not to work with A. Who should play with B? (a) A (b) D (c) C (d) Cannot be determined (d) Cannot be de	52 .	Four players	A, B, C and	D have to form	n into two pairs,		not facing either B or D.	
(a) A (b) D (c) C (d) Cannot be determined (c) C (d) Cannot be determined (d) C (d) Cannot be determined (e) C (d) Cannot be determined (d) C (d) Cannot be determined (e) C (e) C (d) Cannot be determined (e) C (e) C (d) Cannot be determined (e) C (e) C (d) C (d) Nos. 54 to 56] (g) 216473 (b) 214673 (c) 214763 (d) 246173 Directions [Q. Nos. 54 to 56] Cricket clubs in five towns A, B, C, D and E have one team each named P, Q, R, S and T, not necessarily in the same order. The team in A has beaten R, P and S, Q has beaten the team in E, C and A. Team R is in B and the team in C is not S. Where is the team Q? (e) A (b) B (c) C (d) D 65. Where is the team P? (a) A (b) B (c) C (d) D 65. Which team is in A? (a) P (b) Q (c) S (d) T 66. Which team is in A? (a) P (b) Q (c) S 67. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 38 (c) 39 (d) 40 68. In a certain school, the number of students in each section was 24. After admitting some students, three new sections have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (c) 16 (d) 26 69. Who is standing to the immediate right of A? (a) E (b) C (d) B 69. Who is facing B? (a) F (b) S (d) T 61. The sum of ages of a daughter and mother is 63 yr. Four years back mother's age was 4 times that of daughter's age at that time. What is present age of mother? (a) 46 yr (b) 49 yr (c) 50 yr (c) 50 yr (d) 59 yr (d) 49 yr (b) 40 yr (c) 50 yr (d) 59 yr (d) 59 yr (e) 48 yr (b) 49 yr (c) 50 yr (d) 59 yr (e) 49 yr (b) 60 yr (d) 50 yr (d) 59 yr (e) 49 yr (b) 61 yr (c) 50 yr (d) 59 yr (e) 3 yr (f) 42 yr (b) 44 yr (c) 50 yr (d) 59 yr (e) 40 yr (f) 43 yr (f) 45 yr (f) 50 yr (g) 50 yr (h) 40 yr (g) 50 yr (h) 50 yr (h) 65. Which team is in A? (a) 7.00 pm (b) 7.40 pm (c) 7.10 pm (d) 60. Opn (d) 7.10 pm (d) 60. Opn (d) 7.10 pm (times in a ro C and D hav	w A and B hav re three in a re	e played sever	games in a row.	60.	(a) C and D	(b) C and B
53. If ROSE is coded as 6821, CHAIR is coded as 73456 and PREACH is coded as 961473, then the code for SEARCH is (a) 216473 (b) 214673 (c) 214763 (d) 246173 Directions [Q. Nos. 54 to 56] Cricket clubs in five towns A, B, C, D and E have one team each named P, Q, R, S and T, not necessarily in the same order. The team in A has besten R, P and S, Q has beaten the teams in E, C and A. Team R is in B and the team in C is not S. Where is the team Q? (a) A (b) B (c) C (d) D 55. Where is the team P? (a) A (b) B (c) C (d) D 56. Which team is in A? (a) P (b) Q (c) S (d) T 57. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 3 S (b) 38 (c) 39 (d) 40 58. In a certain school, the number of students, three new sections have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (b) 24 (c) 16 (d) 25 59. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference between P and T is 6. Who are sitting packed by D and E (b) D an				(b) D		61.	7 (8)	V
63. If NOSE is coded as 6821, CHAIR is coded for SEARCH is (a) 216473 (b) 214673 (c) 214763 (d) 246173 Directions [Q. Nos. 54 to 56] Cricket clubs in five towns A, B, C, D and E have one team each named P, Q, R, S and T, not necessarily in the same order. The team in A has beaten B, P and S, Q has beaten the teams in E, C and A. Team R is in B and the team in C is not S. 4. Where is the team Q? (a) A (b) B (c) C (d) D 55. Where is the team P? (a) A (b) B (c) C (d) D 56. Which team is in A? (a) P (b) Q (c) S 57. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 33 (c) 39 (d) 40 58. In a certain school, the number of students in each section was 24. After admitting some students, three new sections have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (b) 24 (c) 16 (d) 26 59. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference between P and T is 6. Who are sitting next to A? (a) D and E (b) D and F		(c) C		(d) Cannot be	determined			
(a) 216473 (b) 214673 (c) 214763 (d) 246173 Directions [Q. Nos. 54 to 56] Cricket clubs in five towns A, B, C, D and E have one team each named P, Q, R, S and T, not necessarily in the same order. The team in A has beaten B, P and S, Q has beaten the teams in E, C and A. Team R is in B and the team in C is not S. 44. Where is the team Q? (a) A (b) B (c) C (d) D 45. Where is the team P? (a) A (b) B (c) C (d) D 46. Which team is in A? (a) P (b) Q (c) S (d) T 47. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 33 (c) 39 (d) 40 48. Where is age at that time. What is present age of mother? age at that time. What is present age of mother? (a) A (b) B (c) C (d) D 47. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 36 (c) 39 (d) 40 48. Where is the team B? (a) 4 (b) B (c) C (d) D 49. The sum of ages of a daughter and mother is 63 yr. Four years back mother's age of mother? (a) 46 yr (b) 48 yr (b) 48 yr (c) 50 yr (d) 46 yr (e) 46 yr (b) 48 yr (c) 50 yr (d) 57. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 36 (c) B 40. D B 42. The sum of ages of a daughter and mother is 63 yr. Four years back mother's age of mother? (a) 46 yr (b) 48 yr (c) 50 yr (d) 59 yr (e) 7. A which gains 10 s in 5 him was set correct at 9.00 am When the watch indicated 20 min past 7.00 pm in the same evening, the correct time is (a) 7.00 pm (b) 7.40 pm (c) 7.10 pm (c) 8. The sum of ages of a daughter and mother is 63 yr. Four years back mother's age of mother? (a) 46 yr (b) 48 yr (c) 50 yr (c) 50 yr (d) 59 yr (e) 7. Find the number of students in each what is the same overning, the correct time is (a) 7.00 pm (b) 7.40 pm (c) 7.10 pm (c) 8.00 pm (b) 1.14 the same overning, the correct time is (a) 2 times (b) 3 times (c) 2.5 times (d) 3.5 times (e) 2.5 times (f) 1.24 (o) 126 (o) 127 (o) 128 (o) 2. Times (n) 3 times (o) 3. Times (53.	If ROSE is c	oded as 6821,	CHAIR is cod	ed as 73456 and	72020	A CONTROL OF THE CONT	2.4 (0.4 (1.5 (0.4 (0.4 (0.4 (0.4 (0.4 (0.4 (0.4 (0.4
(a) 216473 (b) 214673 (c) 214753 (d) 246173 Directions [Q. Nos. 54 to 56] Cricket clubs in five towns A, B, C, D and E have one team each named P, Q, R, S and T, not necessarily in the same order. The team in A has beaten R, P and S, Q has beaten the teams in E, C and A. Team R is in B and the team in C is not S. 64. The sum of ages of a daughter and mother is 63 yr. Four years back mother's age was 4 times that of daughter's age at that time. What is present age of mother? (a) A (b) B (c) C (d) D 65. Where is the team P? (a) A (b) B (c) C (d) D 66. Which team is in A? (a) B (c) C (d) D 67. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 38 (c) 39 (d) 40 68. Fisher is aged three times more than the age of his son Rohit's age. After further 8 yr, how many times would be to Rohit's age? (a) 2 times (b) 2 times (c) D (c) B Who is facing B? (d) G 67. The sum of ages of a daughter and mother is 63 yr. Four years back mother's age was 4 times that of daughter's age at that time. What is present age of mother? (a) 46 y (b) 40 yr (c) 50 yr (d) 59 yr 65. A watch gains 10 s in 5 min was set correct at 9.00 am When the watch indicated 20 min past 7.00 pm in the same evening, the correct time is (a) 7.00 pm (b) 7.40 pm (c) 7.10 pm (d) 8.00 pm 66. Father is aged three times more than the age of his son Rohit's age. After further 8 yr, how many times would be to Rohit's age? (a) 2 times (b) 2 times (c) 2.5 times (c) 2.5 times (d) 126 (e) 2.5 times (d) 126 (D) 124 (c) 126 (d) 126 Directions [Q. Nos. 68 to 69] Six friends A, B, C, D, E and F are sitting round a hexagonal table. F, who is sitting exactly opposite to C. 8What is the integer assigned to N? (a) D and E (b) D and E			coded as 9614	73, then the co	ode for SEARCH	62.		
Directions [Q. Nos. 54 to 56] Cricket clubs in five towns A, B, C, D and E have one team each named P, Q, R, S and T, not necessarily in the same order. The team in A has beaten R, P and S, Q has beaten the teams in E, C and A. Team R is in B and the team in C is not S. 54. Where is the team Q? (a) A (b) B (c) C (d) D 55. Where is the team P? (a) A (b) B (c) C (d) D 56. Which team is in A? (a) P (b) Q (c) S (d) T 57. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 38 (c) 39 (d) 40 58. In a certain school, the number of students in each section was 24. After admitting some students, three new section have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (c) 24 (c) 16 (d) 26 (b) 16 (d) 26 59. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference between P and T is 5. The difference between A and B and is exactly opposite to C. 69. Who are sixting B? (a) F (c) T (b) C (d) T 64. The sum of ages of a daughter and mother is 63 yr. Four years back mother's age was 4 times that of daughter's age at that time. What is present age of mother? (a) 46 yr (b) 48 yr (b) 59 yr (c) 59 yr (d) 59 yr (e) 50 yr (d) 59 yr (f) 50 yr (d) 59 yr (e) 50 yr (f) 50 yr (f) 50 yr (g) 50 yr (g) 50 yr (h) 40 pm (h) 40 pm (c) 7.10 pm (d) 8.00 pm (e) 7.40 pm (c) 7.10 pm (d) 8.00 pm (e) 7.40 pm (f) 7.40 pm (g) 2.5 times (g) 2 times (g) 3 times (g) 2 times (g) 2 times (g) 3 times (g) 2 times (g) 3 times (g) 4 time that time what is present age of mother? (a) 45 time that time. What is present age of mother? (a) 45 time the watch indic			(b) D1 4670	(-) 04 4700	(-1) 0 (0130			
Cricket clubs in five towns A, B, C, D and E have one team each named P, Q, R, S and T, not necessarily in the same order. The team in A has beaten R, P and S, Q has beaten the teams in E, C and A. Team R is in B and the team in C is not S. 4. Where is the team Q? (a) A (b) B (c) C (d) D 4. Where is the team P? (a) A (b) B (c) C (d) D 4. Where is the team P? (a) A (b) B (c) C (d) D 4. Where is the team P? (a) A (b) B (c) C (d) D 4. Which team is in A? (a) P (b) Q (c) S (d) T 4. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 33 (c) 39 (d) 40 4. In a certain school, the number of students in each section was 24. After admitting some students, three new sections have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (b) 24 (c) 16 (b) 124 (c) 16 (c) G 4. The sum of ages of a daughter and mother is 63 yr. Four years back mother's age was 4 times that of daughter's age at that time. What is present age of mother? (a) 46 yr (b) 48 yr (b) 50 yr (c) 50 yr (d) 59 yr (e) 50 yr (d) 59 yr (e) 50 yr (b) 74 Op m (c) 7.10 pm (d) 8.00 pm (e) 7.10 pm (d) 8.00 pm (f) 8 (g) G (h) 7 (h) 8 (h) 8 (o) G (d) 45 yr (b) 48 yr (c) 50 yr (d) 40 yr (e) 50 yr (d) 48 yr (e) 50 yr (e) 50 yr (d) 48 yr (e) 50 yr (d) 40 yr (h) 48 yr (e) 50 yr (d) 48 yr (e) 50 yr (e) 50 yr (f) 50 yr (h) 40 yr (e) 50 yr (f) 50 yr (h) 40 yr (e) 50 yr (f) 50 yr (h) 40 yr (h) 7 40 pm (c) 7.10 pm (d) 8.00 pm (e) 7.10 pm (d) 8.00 pm (e) 7.10 pm (d) 8.01 pm (h) 7.40 pm (d) 8.01 pm (h) 7.40 pm (d) 8.01 pm (d) 1.11 pm (d) 2.11 pm (d) 2.12 pm (d) 3.5 times (e) 2.5 times (f) 2.5 times (h) 3.5 times (e) 2.5 times (f) 2.5 times			The state of the s		(0) 246173			(a) B
team each named P, Q, R, S and T, not necessarily in the same order. The team in A has beaten R, P and S, Q has beaten the team in E, C and A. Team R is in B and the team in C is not S. 64. Where is the team Q? (a) A (b) B (c) C (d) D 65. Where is the team P? (a) A (b) B (c) C (d) D 66. Which team is in A? (a) P (b) Q (c) S (d) T 67. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 38 (c) 39 (d) 40 68. In a certain school, the number of students in each section was 24. After admitting some students, three new sections with 21 students in each. What is the number of newly admitted students? (a) 16 (b) 24 (c) 16 (d) 26 69. The sum of ages of a daughter and mother is 63 yr. Four years back mother's age was 4 times that of daughter's age at that time. What is present age of mother? (a) 46 yr (b) 48 yr (c) 50 yr (d) 59. When the watch indicated 20 min past 7.00 pm in the same evening, the correct time is (a) 7.00 pm (b) 7.40 pm (c) 7.10 pm (c) 8.00 pm (d) 8. Father is aged three times more than the age of his son Rohit. After 8 yr, he would be two and a half times of Rohit's age. After further 8 yr, how many times would he be of Rohit's age? (a) 2 times (b) 3 times (c) 2.5 times (c) 2.5 times (d) 3.5 times (e) 2.5 times (d) 3.5 times (e) 2.5 times (d) 3.6 times (e) 2.5 times (d) 3.6 times (e) 2.5 times (e) 2.5 times (f) 3.6 times that time what is present age of mother? (a) 46 yr (c) 59 yr (b) 48 yr (c) 50 yr (c) 50 yr (d) 59. When the watch indicated 20 min past 7.00 pm in the same evening, the correct time is (a) 7.00 pm (b) 7.40 pm (c) 7.10 pm (c) 7.10 pm (d) 8.00 pm (e) 7.10 pm (d) 8.00 pm (e) 7.10 pm (d) 8.00 pm (e) 7.10 pm (e) 7.10 pm (f) 8. Father is aged three times more than the age of his son Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two for Rohit's age. (f) 3.5 times (e) 2.5 times (f) 8. The number of adaptive and mother is 63		2007 NOSAN 87 80				63.		/h) ¢
The team in A has beaten R, P and S, Q has beaten the teams in E, C and A. Team R is in B and the team in C is not S. 54. Where is the team Q? (a) A (b) B (c) C (d) D 55. Where is the team P? (a) A (b) B (c) C (d) D 56. Which team is in A? (a) P (b) Q (c) S (d) T (a) B (c) B (c) G (d) D 57. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 38 (c) 39 (d) 40 58. In a certain school, the number of students in each section was 24. After admitting some students, three new sections have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (b) 24 (c) 16 (d) 26 59. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to have between P and T is 5. The difference between P and T is 5. The difference between P and T is 5. The difference between N and T is 3. What is the integer assigned to N? (a) C T and A. Team R is in B and the team in C is and the team in C is age at that time. What is present age of mother? (a) 46 yr (b) 48 yr (b) 48 yr (c) 50 yr (d) 59 yr (d) 59 yr (e) 50 yr (d) 59 yr (d) 59 yr (e) 7.10 pm (d) 6.0 pm (e) 7.40 pm (c) 7.10 pm (d) 6.0 pm (d) 6.0 pm (d) 7.00 pm (d) 6.0 pm (d) 6.5 Father is aged three times more than the age of his son Rohit. After 8 yr, he would be two and a half times of Rohit's age? (a) 2 times (b) 3 times (c) 2.5 times (d) 3.5 times (d) 3.5 times (e) 1.20 pm (d) 6.5 Father is aged three times more than the age of his son Rohit. After 8 yr, he would be two and a half times of Rohit's age? (a) 2 times (b) 3 times (c) 2.5 times (d) 3.6 times (d) 2.6 pm (d) 4.0 pm (d) 6.5 Father is aged three times more than the age of his son Rohit. After 8 yr, he would be two and a half times of Rohit's age? (a) 2 times (b) 3 times (c) 2.5 times (d) 3.6 times (d) 2.6 pm (d) 3.6 times (e) 7.00 pm (d) 6.5 Father is aged three times more than the age of his son Rohit. After 8 yr, he would be two and a		team each n					(c) Q	(d) T
(a) A (b) B (c) C (d) D 55. Where is the team P? (a) A (b) B (c) C (d) D 56. Which team is in A? (a) P (b) Q (c) S (d) T 57. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 38 (c) 39 (d) 40 58. In a certain school, the number of students in each section was 24. After admitting some students, three new sections have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (b) 24 (c) 16 (d) 26 59. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference P and T is 5. The d	54.	teams in E, on to S.	C and A. Team				age at that time. What is p (a) 46 yr	present age of mother? (b) 48 yr
When the watch indicated 20 min past 7.00 pm in the same evening, the correct time is (a) A (b) B (c) C (d) D 56. Which team is in A? (a) P (b) Q (c) S (d) T 57. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 38 (c) 39 (d) 40 58. In a certain school, the number of students in each section was 24. After admitting some students, three new sections have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (b) 24 (c) 16 (d) 26 59. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference P and T is				(c) C	(d) D	65.	 [6] F. H. H.	
(a) A (b) B (c) C (d) D 68. Which team is in A? (a) P (b) Q (c) S (d) T 69. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 38 (c) 39 (d) 40 69. Father is aged three times more than the age of his sor Rohit. After 8 yr, he would be two and a half times of Rohit's age. After further 8 yr, how many times would be for Rohit's age. After further 8 yr, how many	55.	Where is the	team P?					[1] [1] [1] [1] [1] [1] [1] [1] [1] [1] [1]
66. Father is aged three times more than the age of his son Rohit. After 8 yr, he would be two and a half times of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, he would be two and a half times of Rohit. After 8 yr, he would be two and a half times of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr. how many t				(c) C	(d) D		200 September 1990 Se	
66. Father is aged three times more than the age of his sor Rohit. After 8 yr, he would be two and a half times of Rohit's age. After further 8 yr, how many times would be of Rohit's age. After further 8 yr, how many times would be of Rohit's age. After further 8 yr, how many times would be of Rohit's age. After further 8 yr, how many times would be of Rohit's age. After further 8 yr, how many times would be of Rohit's age. After further 8 yr, how many times would be of Rohit's age. After further 8 yr, how many times would be of Rohit's age. After further 8 yr, how many times would be of Rohit's age. After further 8 yr, how many times would be of Rohit's age. After further 8 yr, how many times would be of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be two and a half times of Rohit's age. After further 8 yr, how many times would be	5G		23 8 74.5.49	X-7		7		
87. Find the number that comes next in the series 120, 99, 80, 63, 48, (a) 35 (b) 38 (c) 39 (d) 40 88. In a certain school, the number of students in each section was 24. After admitting some students, three new sections have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (b) 24 (c) 16 (d) 26 89. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference between N and T is 3. What is the integer assigned to N? (a) 2 times (b) 3 times (c) 2.5 times (d) 3.5 times 67. What is the number that comes next in the series? 1, 2, 3, 6, 11, 20, 37, 68, (a) 105 (b) 124 (c) 125 (d) 126 Directions [Q. Nos. 68 to 69] Six friends A, B, C, D, E and F are sitting round a half times of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age. After further 8 yr, how many times would he be of Rohit's age.		(a) Delanconstant Delance	5/3/0 / 5/5/2003/07/3/07/3/05/	(c) S	(d) T	66.	Father is aged three times	s more than the age of his sor
120, 99, 80, 63, 48, (a) 35 (b) 38 (c) 39 (d) 40 58. In a certain school, the number of students in each section was 24. After admitting some students, three new sections have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (b) 24 (c) 16 (d) 26 59. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference between P and T is 5. The difference between N and T is 3. What is the integer assigned to N? (a) 2 times (b) 3 times (c) 2.5 times (d) 3.5 times (d) 3.6, 11, 20, 37, 68, (a) 105 (b) 124 (c) 125 (d) 126 Directions [Q. Nos. 68 to 69] Six friends A, B, C, D, E and F are sitting round a hexagonal table. F, who is sitting exactly opposite A, is to be immediate right of B, D is between A and B and it exactly opposite to C. 68. Who are sitting next to A? (a) 2 times (b) 3 times (c) 2.5 times (d) 3.5 times (d) 3.6 times (e) 2.5 times (f) 1.24 (c) 125 (c) 125 (d) 126 (e) 126 Directions [Q. Nos. 68 to 69] Six friends A, B, C, D, E and F are sitting exactly opposite A, is to be immediate right of B, D is between A and B and it exactly opposite to C. 68. Who are sitting next to A? (a) 2 times (b) 3 times (c) 2.5 times (c) 2.5 times (d) 3.5 times (d) 3.5 times (e) 2.5 times (d) 3.5 times (e) 2.5 times (f) 2. The number that comes next in the series? 1, 2, 3, 6, 11, 20, 37, 68, (a) 105 (b) 124 (c) 125 (c) 125 (d) 126 (d) 126 (e) 125 (f) 126 (f) 126 (g) 126 (g) 126 (h) 20 Six friends A, B, C, D, E and F are sitting exactly opposite to C. (g) 2 times (h) 3 times (h) 3 times (h) 4 times (h) 2 times (o) 2.5 times (o) 3.6 times (o) 2.5 times (o) 2.5 times (o) 2.5 times (o) 2.5 times (o) 3.6 times (o) 2.5 times (o) 3.6 times (o) 2.5 times (o) 3.6 times (o) 2.5 times (o) 2.5 times (o) 3.6 time	87.							
(a) 35 (b) 38 (c) 39 (d) 40 58. In a certain school, the number of students in each section was 24. After admitting some students, three new sections have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (b) 24 (c) 16 (d) 26 59. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference between P and T is 5. The difference between N and T is 3. What is the integer assigned to N? (a) 2 times (b) 3 times (c) 2.5 times (d) 3.5 times (d) 3.5 times (e) 2.5 times (f) 3.6, 11, 20, 37, 68, 20, 126 (g) 125 (g) 126 Directions [Q. Nos. 68 to 69] Six friends A, B, C, D, E and F are sitting round a hexagonal table. F, who is sitting exactly opposite A, is to be immediate right of B, D is between A and B and it exactly opposite to C. 68. Who are sitting next to A? (a) D and E (b) D and F				ioo mana m	, and the same of			s yr, how many times would be
58. In a certain school, the number of students in each section was 24. After admitting some students, three new sections have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (b) 24 (c) 16 (d) 26 59. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. Th			14	(c) 39	(d) 40		A THE STATE OF THE PROPERTY OF THE PARTY OF	(b) 3 times
section was 24. After admitting some students, three new sections have been started and now there are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (b) 24 (c) 16 (d) 26 59. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference between P and T is 5. The difference between P and T is 5. The difference between A and B and is exactly opposite to C. What is the number that comes next in the series? 1, 2, 3, 6, 11, 20, 37, 68, (a) 105 (b) 124 (c) 125 Directions [Q. Nos. 68 to 69] Six friends A, B, C, D, E and F are sitting round a hexagonal table. F, who is sitting exactly opposite A, is to be immediate right of B, D is between A and B and is exactly opposite to C. 68. Who are sitting next to A? (a) D and E (b) D and F	KR.		7.3		7 5 5 7			100
are 16 sections with 21 students in each. What is the number of newly admitted students? (a) 14 (b) 24 (c) 16 (d) 26 The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference between N and T is 3. What is the integer assigned to N? (a) 105 (b) 124 (c) 125 (d) 126 Directions [Q. Nos. 68 to 69] Six friends A, B, C, D, E and F are sitting round a hexagonal table. F, who is sitting exactly opposite A, is to be immediate right of B, D is between A and B and it exactly opposite to C. (b) D and F						67.	What is the number that o	omes next in the series?
number of newly admitted students? (a) 14 (b) 24 (c) 16 (d) 26 The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference between N and T is 3. What is the integer assigned to N? (b) 124 (c) 125 (d) 126 Directions [Q. Nos. 68 to 69] Six friends A, B, C, D, E and F are sitting round a hexagonal table. F, who is sitting exactly opposite A, is to be immediate right of B, D is between A and B and it exactly opposite to C. (a) 105 (b) 124 (c) 125 (d) 126 Six friends A, B, C, D, E and F are sitting round a hexagonal table. F, who is sitting exactly opposite A, is to be immediate right of B, D is between A and B and it exactly opposite to C. (b) D and F				The second secon			1, 2, 3, 6, 11, 20, 37, 68,	
(a) 14 (b) 24 (c) 16 (d) 26 Directions [Q. Nos. 68 to 69] 59. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference between P and T is 5. The difference between N and T is 3. What is the integer assigned to N? (a) 125 Directions [Q. Nos. 68 to 69] Six friends A, B, C, D, E and F are sitting round a hexagonal table. F, who is sitting exactly opposite A, is to be immediate right of B, D is between A and B and it exactly opposite to C. Who are sitting next to A? (b) D and F						88		(b) 124
(c) 16 (d) 26 Directions [Q. Nos. 68 to 69] 59. The nine alphabets L, M, N, O, P, Q, R, S and T are assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference between N and T is 3. What is the integer assigned to N? (a) 7 (b) 6 (c) 7							(c) 125	(d) 126
assigned to nine integers 1 to 9 not necessarily in the same order 4 is assigned to P. The difference between P and T is 5. The difference between N and T is 3. What is the integer assigned to N? (a) D and E (b) D and F		32 32					Directions [Q. Nos.	68 to 69]
What is the integer assigned to N? (a) D and E (b) D and F	59.	assigned to same or The differen	nine integers der 4 nce between l	1 to 9 not not is assign	cessarily in the	34,5000	Six friends A, B, C, D, I hexagonal table. F, who is be immediate right of B, exactly opposite to C.	E and F are sitting round a sitting exactly opposite A, is to D is between A and B and is
(a) Dailot (b) Dailot				ed to N?		6 8.		
TO STATE THE STATE OF THE STATE								

(d) 4



(Best COACHING for MCA ENTRANCE in INDIA)

NIMCET Solved Paper 2014

69. Who	is	sitting	opposite	to	B?	
----------------	----	---------	----------	----	----	--

(a) A

(b) C

(c) E

(d) F

70. The arithmetic mean of 2^{10} and 2^{20} is

(a) 2^{15}

(b) $2^5 + 2^{10}$

(c) $2^8 + 2^{20}$

(d) $2^9 + 2^{19}$

71. There are five different boxes of different unknown weights each less than 100 kg. These boxes were weighted in pairs and the weights obtained are 110, 112, 113, 114, 115, 116, 117, 118, 120 and 121 kg. What is the weight in kg of the heaviest box?

(a) 60

(c) 64

(d) 61

Directions [Q. Nos. 72 to 76]

All the roads of a city are either perpendicular or parallel to one another. The roads are all straight. Roads A, B, C, D and E are parallel to one another. Roads F, G, H, I, J, K, L and M are parallel to one another.

Road A is 1 km East of road B.

Road B is 1/2 km West of road C.

Road D is 1 km West of road E.

Road G is 1/2 km South of road H.

Road I is 1 km North of road J.

Road K is 1/2 km North of road L.

Road K is 1 km South of road M.

72. Which of the following is necessarily truc?

- (a) E and B intersect
- (b) D is 2 km West of B
- (c) D is atleast 2 km West of A
- (d) M is 1.5 km North of L

78. If E is between B and C, then which of the following is false?

- (a) D is 2 km West of A
- (b) C is less than 1.5 km from D
- (c) Distance from E to B added to distance of E to C is 1/2 km
- (d) E is less than 1 km from A

74. If road E is between B and C, then the distance between A and D is

- (a) less than 1 km
- (b) C is 1 km West of D
- (c) between 1/2 km and 2 km
- (d) more than 2 km

75. Which of the following possibilities would make two roads coincide?

- (a) L is 1/2 km North of I
- (b) C is 1 km West of D
- (c) I is 1/2 km North of K
- (d) E and B are 1/2 km apart

- 76. If K is parallel to I, K is 1/2 km South of J and 1 km North of G, then which of the following two roads would be 1/2 km apart?
 - (a) I and K
- (b) J and G
- (c) I and G
- (d) J and K
- 77. The students in three classes are in the ratio 2:3:5. If 20 students are increased in each class, the ratio changes to 4:5:7. The total number of students before the increase were
 - (a) 10

(b) 90

(c) 100

(d) None of these

- 78. Ajith is three times older than Babita. Chetu is half the age of Das. Babita is older than Chetu. Which of the following additional information is needed to estimate the age of Ajith?
 - I. Chetu is 10 yr old.
- II. Both Babita and Das are older than Chetu by the same number of years.
 - (a) Only I

(b) Only II

(c) I and II

(d) None of these

Directions [Q. Nos. 79 to 82]

Six friends P, Q, R, S, T and U are standing in two rows facing one another. P is the middle of one row. U is to the left to S and facing R, Q and T are not in the same row. Only one person is in between R and T.

79. Which of the following are in the same row?

(a) U, S and T

(b) R, P and T

(c) U, Q and P

(d) U, R, and Q

80. Who is to the left of S?

(a) P

(b) U

(c) S

(d) Q

81. Who faces P?

(a) Q

(b) T

(c) S

(d) U

82. Which of the following pairs are facing each other?

(a) RS

(b) TU

(c) PU

(d) TQ

Directions [Q. Nos. 83 to 87]

Six members of a family A, B, C, D, E and F are Psychologist, Manager, Advocate, Jeweller, Doctor and Engineer but not necessarily in same order.

Doctor is the grandfather of F, who is Psychologist.

Manager D is married to A.

Jeweller C is married to Advocate.

B is the mother of F and E.

There are two married couples in the family.

83. Which is the profession of A?

(a) Manager

(b) Engineer

(c) Can't be determined

(d) None of these

84. What is the profession of E?

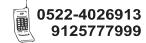
(a) Manager

(b) Engineer

(c) Doctor

(d) None of these





FOR MCA ENTRANC (Best COACHING for MCA ENTRANCE in INDIA)

NIMCET Solved Paper 2014

85. How is A related to E	85.	How	18	A	rel	lated	to	E
----------------------------------	-----	-----	----	---	-----	-------	----	---

(a) Grandmother

(b) Wife

(c) Grandfather

(d) None of these

86. How many male members are there in the family?

(a) Two

(b) Three

(c) Four

(d) Can't be determined

87. Who are the two couples in the family?

(a) AD and CB

(b) AB and CD

(c) AC and BD

(d) None of these

Directions [Q. Nos. 88 to 90]

At a small company, parking spaces are reserved for the top executives: CEO, President, Vice-President, Secretary and Treasurer with the spaces lined up in that order. The parking lot guard can tell at a glance, if the cars are parked correctly by looking at the colour of the cars. The cars are yellow, green, purple, red and blue and the executive names are Alice, Bert, Cheryl, David and Enid.

The car in the first space is red.

A blue car is parked between the red car and the green

The car in the last space is purple.

The secretary drives a yellow car.

Alice's is parked next to David's.

Enid drives a green car.

Bert's car is parked between Cheryl's and Enid's.

David's car is parked in the last space.

88. Who is the secretary?

(a) Enid

(b) David

(c) Cheryl

(d) Alice

89. Who is the CEO?

(a) Alice

(b) Bert

(c) Cheryl

(d) David

90. What colour is the Vice-President car?

(a) Green

(b) Yellow

(c) Blue

(d) Purple

General English

-	THEFT		. 7	1 1	3			correct	7
	Mark III	110	tha	bles	nir :	TENTE		COMMONT	ITTOMO
	L 441	ш	шс	LIN		WILLIAM	21	COLLECT	WUI'U.

The kitten was soaked to the skin from the

(a) craven

(b) storm

(c) abyss

(d) wind

(d) thieves

92. Fill in the blank with the correct word.

The ship was attacked by _____ near a deserted Island.

(a) burglars (b) gangsters (c) pirates

93. From the given alternatives, chosen the one which best express the given sentence in indirect/direct speech. The boy said, 'Who dare call you a thief?'

(a) The boy enquired who dared call him a thief

(b) The boy asked who called him a thief

(c) The boy told that who dared call him a thief

(d) The boy wondered who dared call him a thief

94. Choose the one which can be substituted for the sentence. 'The study of ancient societies'.

(a) Anthropology

(b) Archeology

(c) History

(d) Ethology

Directions [Q. Nos. 95 to 96]

Population explosion, malnutrition and ill health are the problems that modern scientists examine for solutions. The agriculture scientists are required to concentrate not only on large production, but also more on improved varieties and protein-rich foods to ward off the ills of malnutrition. The medical scientists responsibilities is not limited to the manufacture of drugs to cure diseases, they must invent medicines to prot zumanity from epidemics. UoJess important is the area of war and weapons.

The large scale devastation in Japan by the atom bomb is a stigma on the lair name of scientist. The modem scientist must make a point not to help in the proliferation of atomic weapons. They should rather devote their energies to the peaceful uses of atomic energy for the emancipation of humanity from hunger and diseases. They must realise that the benefit of their researches and inventions should reach the hands of all, the rich and poor alike.

95. Modern scientists must make point not to help.

(a) In the peaceful use of atomic energy

(b) in the prevention of malnutrition

(c) In the proliferation of atomic weapons

(d) In the removal of ill health

96. What does the expression 'malnutrition' used in the passage mean?

(a) Excessive nourishment

(b) Prevention of epidemics

(c) Proliferation of diseases

(d) Lack of proteins

97. Change the voice,

Why did your brother write such a letter?

(a) Why was such a letter written by your brother?

(b) Why did your brother write such a letter?

(c) Why was such a letter wrote by your brother?

(d) Why does your brother write such a letter?

98. The first and the last parts of a sentence are numbered as 1 and 6. The rest of the sentence is split into four parts named P, Q, R, S. These four parts are not given in their proper order. Read the sentence and find out which of the four combinations in correct.

1. Let's never

P. that food

Q. virtually impossible

R. forget

S. is seductive and

6. to resist (a) SRPQ

(b) PSRQ

(c) QSRP



(Best COACHING for MCA ENTRANCE in INDIA)

NIMCET Solved Paper 2014

Ipropose that the meetingput off till sunday (a) will be (b) is to be (c) should be (d) be (d) be (e) should be (d) be (e) should be (d) be (e) should be (e) should be (f) be (f	(f) were (b) abfeed (c) ecdbfa (d) afebod ank with appropriate question tag. Chennai now, (b) doesn't she? (c) doesn't she? (d) she does? (e) ecorrect word that best expresses the prudent'. (b) Efficient (d) Profitable orrect article for the sentence below. (b) ine (d) No article of 'stupendous' is (b) bornoble (c) comporting in with same relationship AFTER: BEFORE E SECOND ORARY : HISTORIC DRAFY : PAST OR : PREDECESSOR (c) Instantaneous (d) Boaster (d) afebod (e) chose the correct form of verb for the sentence below. I propose that the meeting put off till sunday next. (a) will be (b) is to be (c) should be (d) be (c) should be (d) be (c) should be (d) be (d) bor (e) to (f) by (e) to (f) to (f) by (f) to (f) to (f) by (g) Use (f) Polite (g) Peacetiff (g) Peace	99.	Arrange the		ds to form a r (b) students	neaningful sentence	105	. Choose the or "A person who			ed for the ph	rase
(c) a (t) were (a) dbfeac (b) abfeed (c) ecdbfa (d) afebed 100. Fill in the blank with appropriate question tag. She lives in Chennai now, (a) fivos she? (b) doesn't she? (c) does she? (d) she does? 101. Pick out the correct word that best expresses the meaning of 'prudent'. (a) Skillful (b) Efficient (c) Wise (d) Profitable 102. Choose the correct article for the sentence below. "Many flower is born to blush unseen." (a) an (b) the (c) a (d) No article 103. The synonym of 'stupendous' is (a) astounding (b) horrible (c) appealing (d) comforting 104. Select the pair with same relationship AFTER: BEFORE (a) FIRST SECOND (b) CONTEMPORARY : HISTORIC (c) PRESENT PAST (d) SUCCESSOR : PREDECESSOR 106. Choose the correct form of verb for the sentence below. I propose that the meeting put off till sundary. (a) will be (b) is to be (c) should be (c) should be (c) be filled in the blank with correct preposition. The policeman told me to keep the left. (a) for (b) of (c) to (c) by 108. Choose the most suitable synonym for the ward to be filled in the given sentence below. (a) Just (b) Pleasant (c) Peaceful (c) Complete (a) Sweet (b) Polite (c) Decoret (c) Gentie 110. Choose the most suitable antonym for the word Reference below. (a) Will be (b) is to be (c) should be (d) be (b) is to be (c) should be (d) be (d) will be (d) by (d) by (lot by (d) by (lot by (d) by (lot by	(b) abfeed (c) ecdbfa (d) afebod ank with appropriate question tag. Chennal now, (b) doesn't she? (d) she does? (e) Efficient (d) Profitable (f) Profitable (f) No article (f) No article (f) Chorothe (f) No mitcle (f) Comporting (g) Wilbe (g) Should be (g) should		(c) lot		(d) of			500		74. <i>1</i> 9		
Ipropose that the meetingput off till sunday (a) will be (b) is to be (c) should be (d) be (d) be (e) should be (d) be (e) should be (d) be (e) should be (e) should be (f) be (f	ank with appropriate question tag. Chennai now, (b) doesn't she? (d) she does? 107. Fill in the blank with correct preposition. The policeman told me to keep the left. (a) for (b) of (c) to (d) by 108. Choose the most suitable synonym for the word "Amicable". (a) Sweet (b) Pelasant (c) Peaceful (d) Complete 109. Choose the most suitable antonym for the word Rude. (a) Sweet (b) Polite (b) horrible (c) comforting ir with same relationship AFTER: BEFORE : SECOND ORARY : HISTORIC : PAST OR : PREDECESSOR Computer Awareness equivalent of the hexadecimal operation (b) 5246 (c) 2849 (d) 5344 2's complement of 00110101 1001 1100? 1100 1011 (b) 1100 1010 0110 0011 0110 0100 (d) 1100 1010 0110 0011 0110 0100 (d) 1100 1010 0110 0111 0110 1010 1010 (d) 1100 1110 1111 1111 I propose that the meeting put off till sunday next. (a) will be (b) is to be (c) should be (d) be (d) to (d) by 109. Choose the most suitable synonym for the word "Amicable". (a) Just (b) Peasant (c) Peaceful (d) Complete 109. Choose the most suitable antonym for the word underlined in the given sentence. "Developing indigenous technology is important to lead the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise Computer Awareness equivalent of the hexadecimal operation (b) 5246 (c) 2849 (d) 5344 2's complement of 00110101 1001 1100? 1100 1011 (b) 1100 1010 0110 0011 0110 0100 (d) 1100 1010 0110 0110 0110 0100 (d) 1100 1010 0110 0111 0110 1011 (b) 1100 1010 1010 1110 011 0110 1010 1010		(e) a		(f) were			0.00		3.5		
She lives in Chennal now, (a) lives she? (b) doesn't she? (c) does she? (d) she does? 101. Pick out the correct word that best expresses the meaning of 'prudent'. (a) Skillful (b) Efficient (c) Wise (d) Profitable 102. Choose the correct article for the sentence below. "Many flower is born to blush unseen." (a) an (b) the (c) a (d) No article 103. The synonym of 'stupendous' is (a) astounding (b) horrible (c) appealing (d) comforting 104. Select the pair with same relationship APTER: BEFORE (a) FIRST : SECOND (b) CONTEMPORARY : HISTORIC (c) PRESENT : PAST (d) SUCCESSOR : PREDECESSOR (a) will be (c) should be (c) should be (c) should be (d) be (d) be (d) be (c) should be (c) should be (d) be (c) should be (d) be (d) be (d) be (c) should be (d) be (d) be (d) be (d) be (d) be (e) should be (c) should be (d) be (d) be (d) be (e) should be (f) should be (c) should be (d) be (e) should be (d)	Chennai now, (b) doesn't she? (d) she does? The correct word that best expresses the prudent. (b) Efficient (d) Profitable (d) Profitable (e) Should be (e) Should be (f) be (f) be (f) to (g) to (g) to (g) be (f) to (g)		(a) dbfeac	(b) abfecd	(c) ecdbfa	(d) afebcd	106	. Choose the co	rrect form of	verb for the s	entence belo	w.
(c) should be (d) be (d) be (e) shoes she? (b) doesn't she? (b) doesn't she? (c) does she? (d) she does? 101. Pick out the correct word that best expresses the meaning of 'prudent'. (a) Skillful (b) Efficient (c) Wise (d) Profitable 102. Choose the correct article for the sentence below. "Many flower is born to blush unseen." (a) an (b) the (c) a (d) No article 103. The synonym of 'stupendous' is (a) astounding (b) horrible (b) comforting 104. Select the pair with same relationship AFTER: BEFORE (a) FIRST : SECOND (b) CONTEMPORARY : HISTORIC (c) PRESENT : PAST (d) SUCCESSOR : PREDECESSOR (c) should be (d) be 107. Fill in the blank with correct preposition. The policeman told me to keep the left. (a) for (b) of (c) to (d) by (c) to (d) by (d) Choose the most suitable synonym for the "Amicable" (a) Just (b) Pleasant (c) Peaceful (d) Complete 109. Choose the most suitable antonym for the word Reference in the second of the most suitable antonym for the word Reference in the given sentence. (a) Sweet (b) Polite (b) Polite (c) Decent (d) Gentle 110. Choose the word that matches suitably with the underlined in the given sentence. "Developing indigenous technology is important the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise	(c) should be (d) be (d) doesn't she? (d) she does? (e) should be (d) be 107. Fill in the blank with correct preposition. The policeman told me to keep the left. (a) for (b) of (b) Efficient (d) Profitable Orrect article for the sentence below flower is born to blush unseen." (b) the (d) No article (d) No article (d) conforting (d) conforting (in with same relationship AFTER: BEFORE (d) controlle (d) conforting (e) should be (d) be 107. Fill in the blank with correct preposition. The policeman told me to keep the left. (a) for (b) of (c) to (d) by 108. Choose the most suitable synonym for the word with the word in the given sentence. (a) Sweet (b) Polite (b) Polite (c) Decent (d) Gentle 110. Choose the most suitable antonym for the word Rude. (a) Sweet (b) Polite (c) Decent (d) Gentle 110. Choose the word that matches suitably with the word underlined in the given sentence. "Developing indigenous technology is important to lead the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise Computer Awareness equivalent of the hexadecimal operation (b) 5246 (c) 2849 (d) 5344 2s complement of 00110101 1001 11007 1100 1011 (b) 1100 1010 0110 0011 0110 0100 (d) 1100 1010 1111 1111 117. How many bytes are there in a nibble?	100.	Fill in the bl	ank with a	app ropriate qu	estion tag.					till sunday n	ext.
(a) lives she? (b) doesn't she? (c) does she? (d) she does? (d) she does? (d) she does? (e) she does? (f) she does? (h) she does	(b) doesn't she? (d) she does? The correct word that best expresses the prudent. (b) Efficient (c) Profitable The policeman told me to keep the left. (a) for the left. (a) for the left. (a) for the left. (a) for		She lives in	Chennai n	ow,	Di.		Action and the second second				
101. Pick out the correct word that best expresses the meaning of 'prudent'. (a) Skillful (b) Efficient (c) Wise (d) Profitable 102. Choose the correct article for the sentence below. "Many flower is born to blush unseen." (a) an (b) the (c) a (d) No article 103. The synonym of 'stupendous' is (a) astounding (b) horrible (c) appealing (d) comforting 104. Select the pair with same relationship AFTER : BEFORE (a) FIRST : SECOND (b) CONTEMPORARY : HISTORIC (c) PRESENT : PAST (d) SUCCESSOR : PREDECESSOR The policeman told me to keep the left. (a) for (b) of (c) to (d) by 108. Choose the most suitable synonym for the "Amicablo". (a) Just (b) Pleasant (c) Peaceful (d) Complete (a) Sweet (b) Polite (c) Decent (d) Gentle (b) Choose the word that matches suitably with the underlined in the given sentence. "Developing indigenous technology is important to the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise	The policeman told me to keep the left. (a) for (b) of (c) to (d) by (b) Efficient (d) Profitable 108. Choose the most suitable synonym for the word "Amicable". (a) Just (b) Pleasant (c) Peaceful (d) Complete (b) horrible (d) comforting ir with same relationship AFTER: BEFORE : SECOND ORARY : HISTORIC : PAST OR : PREDECESSOR Computer Awareness equivalent of the hexadecimal operation (b) 5246 (c) 2849 (c) 5344 Ze complement of 00110101 1001 1100? 1100 1011 (b) 1100 1010 0110 0111 1101 1011 (b) 1100 1010 0110 0111 1101 1010 1010 (d) 1100 1111 1111 The policeman told me to keep the left. (a) for (b) of (c) to (d) by (b) of (c) to (d) by (C) to (d) by (A) for (b) of (c) to (d) by (A) for (b) of (c) to (d) by (A) for (b) of (c) to (d) by (A) for (b) of (A) for (b) by (B) for (a) for the word and the word antonym for the word Rude. (a) Sweet (b) Polite (c) Decent (c) Gentie (b) Peasant (c) Peaceful (c) Complete (c) Decent (c) Gentie (c) Decent (c) Gentie (d) Weise (a) Sweet (b) Polite (c) Decent (c) Gentie (c) Decent (c) Gentie (d) Weise (a) Sweet (b) Polite (c) Decent (c) Gentie (c) Decent (c) Gentie (d) Weise (d) Wei				(b) doesn'	t she?	107					
meaning of 'prudent'. (a) Skillful (b) Efficient (c) Wise (d) Profitable 102. Choose the correct article for the sentence below. "Many flower is born to blush unseen." (a) an (b) the (c) a (d) by Pleasant (d) Complete 103. The synonym of 'stupendous' is (a) astounding (b) horrible (c) appealing (d) comforting 104. Select the pair with same relationship AFTER: BEFORE (a) FIRST SECOND (b) CONTEMPORARY : HISTORIC (c) PRESENT : PAST (d) SUCCESSOR : PREDECESSOR (a) for (b) of (c) to (d) by Police (c) to (d) by Police (manically in the suitable synonym for the word Recorded (a) Just (b) Pleasant (c) Peaceful (d) Complete (e) Police (c) Decent (d) Gentle (e) Decent (d) Gentle (fine the given sentence. (a) Just (b) Pleasant (c) Peaceful (d) Gentle (e) Decent (d) Gentle (fine the given sentence. (b) Police (c) Decent (d) Gentle (fine the given sentence. (c) Decent (d) Gentle (fine the given sentence. (d) Gentle (fine the given sentence) (fine the given sente	(a) for (b) of (c) to (d) by (b) Efficient (d) Prolitable (d) Prolitable (e) IOS. Choose the most suitable synonym for the word "Amicable". (a) Just (b) Pleasant (c) Peaceful (d) Complete (d) No article (d) No article (d) Comforting (d) Comforting (e) ESCOND (d) Comforting (for it with same relationship AFTER: BEFORE (for it with sa		(c) does she?)	(d) she do	es?	107			(元) 元		
(a) Skillful (b) Efficient (c) Wise (d) Profitable 102. Choose the correct article for the sentence below. "Many flower is born to blush unseen." (a) an (b) the (c) a (d) No article 103. The synonym of 'stupendous' is (a) astounding (c) appealing (d) comforting 104. Select the pair with same relationship AFTER: BEFORE (a) FIRST : SECOND (b) CONTEMPORARY : HISTORIC (c) PRESENT : PAST (d) SUCCESSOR : PREDECESSOR (c) to (d) by 108. Choose the most suitable synonym for the word Reference (a) Just (b) Pleasant (c) Peaceful (d) Complete (a) Just (b) Pleasant (c) Peaceful (d) Complete (a) Sweet (b) Polite (c) Decent (d) Gentle (a) Sweet (b) Polite (c) Decent (d) Gentle 110. Choose the word that matches suitably with the underlined in the given sentence. "Developing indigenous technology is important to the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise	(c) to (d) by (d) Prolitable (d) Prolitable (e) Hosse the most suitable synonym for the word orrect article for the sentence below. flower is born to blush unseen." (b) the (d) No article (e) Peaceful (d) Complete 109. Choose the most suitable antonym for the word Rude. (a) Sweet (b) Polite (b) horrible (d) comforting ir with same relationship AFTER : BEFORE : SECOND ORARY : HISTORIC (c) PAST OR PREDECESSOR Computer Computer Computer Awareness equivalent of the hexadecimal operation (b) 5246 (c) 2849 (d) 5344 2's complement of 00110101 1001 1100? 1100 1011 (b) 1100 1010 0110 0011 1011 00100 (d) 1100 1110 1111 1111 (c) to (d) by ("Amicable" (a) Just (b) Pleasant (c) Peaceful (d) Complete (a) Just (b) Peasant (c) Peaceful (d) Complete (a) Sweet (b) Polite (c) Decent (d) Gentile 110. Choose the most suitable antonym for the word Rude. (a) Sweet (b) Polite (c) Decent (d) Gentile (b) Choose the most suitable antonym for the word Rude. (a) Sweet (b) Polite (c) Decent (d) Gentile (b) Choose the most suitable antonym for the word Rude. (a) Sweet (b) Polite (c) Decent (d) Gentile (b) Choose the most suitable antonym for the word Rude. (a) Sweet (b) Polite (c) Decent (d) Gentile (c) Decent (d) Complete (d) Complete (d) Complete (e) Peaceful (d) Complete (d) Gentile (c) Decent (d) Gentile (d) Complete (e) Peaceful (d) Complete (d) Complete (d) Choose the most suitable antonym for the word Rude. (a) Sweet (b) Polite (c) Decent (d) Gentile (c) Capital Still (d) Complete (d) Choose the most suitable antonym for the word Rude. (a) Sweet (b) Polite (c) Capital Still (d) Complete (d) Compl	101.			word that l	best expresses the					the left.	
(c) Wise (d) Profitable 102. Choose the correct article for the sentence below. "Many flower is born to blush unseen." (a) an (b) the (c) a (d) No article 103. The synonym of 'stupendous' is (a) astounding (b) horrible (b) appealing (d) comforting 104. Select the pair with same relationship AFTER: BEFORE (a) FIRST : SECOND (b) CONTEMPORARY : HISTORIC (c) PRESENT : PAST (d) SUCCESSOR : PREDECESSOR 108. Choose the most suitable synonym for the "Amicable". (a) Just (b) Pleasant (c) Peaceful (d) Complete (a) Sweet (b) Polite (c) Decent (d) Gentle 110. Choose the most suitable antonym for the word Reference in the given sentence. (a) Sweet (b) Polite (c) Decent (d) Gentle 110. Choose the most suitable antonym for the word Reference in the given sentence. (b) Polite (c) Decent (d) Gentle (c) Decent (d) Gentle (d) Sweet (b) Polite (e) Decent (d) Gentle (c) Decent (d) Gentle (d) Gentle (d) Sweet (b) Polite (e) Decent (d) Gentle (d) Gentle (e) Decent (d) Gentle (e) Decent (d) Gentle (f) Complete (c) Decent (d) Gentle (d) Gentle (e) Decent (d) Gentle (f) Complete (g) Decent (d) Gentle (g	(d) Profitable (d) Profitable orrect article for the sentence below. flower is born to blush unseen." (b) the (c) No article (d) Complete (d) Complete (d) Complete (e) Decent (d) Complete (f) Composition (f) Sweet (b) Polite (g) Comforting (g) Choose the most suitable antonym for the word Rude. (a) Sweet (b) Polite (b) Polite (c) Decent (d) Gentle (f) Composition (g) Sweet (b) Polite (g) Gentle (g) Choose the word that matches suitably with the word underlined in the given sentence. "Developing indigenous technology is important to lead the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise Computer Awareness equivalent of the hexadecimal operation (b) 5246 (c) 2849 (d) 5344 (c) Peaceful (d) Complete (c) Decent (d) Gentle (c) Decent (d) Gentle (d) Complete (e) Decent (d) Gentle (f) Choose the word that matches suitably with the word underlined in the given sentence. "Developing indigenous technology is important to lead the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise 109. Choose the most suitable antonym for the word Rude. (a) Sweet (b) Polite (c) Decent (d) Gentle (c) Decent (d) Gentle (d) Complete (d) Complete (d) Complete (e) Decent (d) Gentle (c) Decent (d) Gentle (d) Complete (e) Decent (d) Gentle (d) Complete (e) Decent (d) Gentle (d) Complete (e) Decent (d) Complete (e) D			prudent'.	(le) Efficien	. i		798				
**Many flower is born to blush unseen." (a) an	### Amicable "Amicable"		7,000		100		109	ALSO KOVS		5000000000	for the r	rond
"Many flower is born to blush unseen." (a) an	Glower is born to blush unseen." (a) Just (b) Pleasant (c) Complete (d) No article (d) No article (d) No article (e) Decent (d) Gentle (d) Complete (d) Composition (d) Composition (e) Polite (d) Composition (d) Composition (e) Polite (d) Composition (e) Decent (e) Decent (e) Gentle (fine particular to the most suitable antonym for the word Rude. SECOND		7,000	arreat arti	3,000		100		most suitab	ie synonym	tor the v	<i>r</i> oru
(a) an (b) the (c) a (d) No article 103. The synonym of 'stupendous' is (a) astounding (b) horrible (c) appealing (d) comforting 104. Select the pair with same relationship AFTER; BEFORE (a) FIRST SECOND (b) CONTEMPORARY HISTORIC (c) PRESENT PAST (d) SUCCESSOR PREDECESSOR (b) Computer (c) Peacetof (d) Complete (d) Choose the most suitable antonym for the word Roll (a) Sweet (b) Polite (c) Decent (d) Gentle (d) Gentle (e) Decent (d) Gentle (d) Gentle (e) Decent (d) Gentle (e) Decent (d) Gentle (f) Peacetof (d) Sweet (b) Polite (c) Decent (d) Gentle (d) Gentle (e) Decent (d) Gentle (e) Decent (d) Gentle (f) Choose the word that matches suitably with the underlined in the given sentence. "Developing indigenous technology is important to the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise	(b) the (d) No article (d) No article (d) horrible (d) comforting (e) horrible (d) comforting (f) Choose the most suitable antonym for the word Rude. (g) Sweet (g) Decent (g) Gentle (h) Polite (g) Decent (g) Gentle (h) Polite (g) Decent (g) Gentle (h) Polite (g) Decent (h) Polite (h) Polite (g) Decent (h) Polite (h	102.				24 - C.				(b) Pleasant		
(c) a (d) No article 103. The synonym of 'stupendous' is (a) astounding (b) horrible (c) appealing (d) comforting 104. Select the pair with same relationship AFTER : BEFORE (a) FIRST : SECOND (b) CONTEMPORARY : HISTORIC (c) PRESENT : PAST (d) SUCCESSOR : PREDECESSOR 109. Choose the most suitable antonym for the word Reference (a) Sweet (b) Polite (c) Decent (d) Gentle 110. Choose the word that matches suitably with the underlined in the given sentence. "Developing indigenous technology is important to the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise	(d) No article of 'stupendous' is (b) horrible (c) comforting ir with same relationship AFTER: BEFORE : SECOND ORARY : HISTORIC : PAST OR : PREDECESSOR Computer Awareness equivalent of the hexadecimal operation (b) 5246 (c) 2849 (d) 5344 2's complement of 00110101 1001 1100? (c) Decent (d) Polite (c) Decent (d) Gentle (d) Choose the word that matches suitably with the word underlined in the given sentence. "Developing indigenous technology is important to lead the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise Computer Awareness (a) X = 1.0, Y = 1.0 (b) X = 1.0, Y = 0.0 (c) X = 0.0, Y = 1.0 (d) X = 0.0, Y = 0.0 (d) X = 0.0, Y = 0.0 (e) X = 0.0, Y = 1.0 (f) X = 0.0, Y = 0.0 (f) X = 0.0, Y = 0.0 (g) X = 0.0, Y =			nower		sn unseen.		(c) Peaceful		(d) Complete		
103. The synonym of 'stupendous' is (a) astounding (b) horrible (c) appealing (d) comforting 104. Select the pair with same relationship AFTER: BEFORE (a) FIRST (b) CONTEMPORARY: HISTORIC (c) PRESENT (d) SUCCESSOR (a) Sweet (b) Polite (c) Decent (d) Gentle (c) Decent (d) Gentle (e) Decent (d) Gentle (d) Gentle (e) Decent (e) Decent (d) Gentle (e) Decent (e) Decent (e) Decent (f) Gentle (f)	(a) Sweet (b) Polite (c) Decent (d) Gentle 110. Choose the word that matches suitably with the word underlined in the given sentence. "Developing indigenous technology is important to lead the nation to self-sufficiency." (a) Sweet (b) Polite (d) Gentle 110. Choose the word that matches suitably with the word underlined in the given sentence. "Developing indigenous technology is important to lead the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise Computer Awareness equivalent of the hexadecimal operation (a) X = 1.0, Y = 1.0 (b) X - 1.0, Y = 0.0 (c) X = 0.0, Y = 1.0 (d) X = 0.0, Y = 0.0 (b) 5246 (c) 2849 (d) 5344 116. The Boolean expression X (X + Y) is same as 2's complement of 00110101 1001 1100? (a) X = 1.0, Y = 1.0 (d) X = 0.0, Y = 0.0 (c) X = 0.0, Y = 1.0 (d) X = 0.0, Y = 0.0 (d) X = 0.0, Y = 1.0 (d) X = 0.0, Y = 0.0 (e) X = 0.0, Y = 1.0 (d) X = 0.0, Y = 0.0 (f) 5246 (g) 2849 (g) 5344 116. The Boolean expression X (X + Y) is same as 2's complement of 00110101 1001 1100? (a) X = 1.0, Y = 1.0 (d) X = 0.0, Y = 0.0 (b) 5246 (c) 2849 (d) 5344 116. The Boolean expression X (X + Y) is same as (a) X (1 + Y) (b) X (b) X = 0.0, Y = 0.0 (c) X = 0.0, Y = 1.0 (d) All of these 117. How many bytes are there in a nibble?				The state of the s	cle	109	. Choose the me	ost suitable ar	ntonym for tl	ne word Rud	e.
(a) astounding (b) horrible (c) appealing (d) comforting 104. Select the pair with same relationship AFTER: BEFORE (a) FIRST : SECOND (b) CONTEMPORARY : HISTORIC (c) PRESENT : PAST (d) SUCCESSOR : PREDECESSOR (b) horrible (c) Decent (d) Gentie (c) Decent (d) Gentie (d) Gentie (e) Decent (d) Gentie (e) Decent (d) Gentie (f) Dec	(b) horrible (d) comforting ir with same relationship AFTER: BEFORE : SECOND ORARY : HISTORIC : PAST OR : PREDECESSOR Computer Awareness equivalent of the hexadecimal operation (b) 5246 (c) 2849 (d) 5344 2's complement of 00110101 1001 1100? 1100 1010 (d) 1100 1010 0110 0011 0110 0100 (d) 1100 1010 1111 1111 117. How many bytes are there in a nibble?	103.	A150600000	a of 'stuner	- 10 SE 10 S	ж		(a) Sweet		경영화 경기 :		
(c) appealing (d) comforting 104. Select the pair with same relationship AFTER: BEFORE (a) FIRST : SECOND (b) CONTEMPORARY : HISTORIC (c) PRESENT : PAST (d) SUCCESSOR : PREDECESSOR 110. Choose the word that matches suitably with the underlined in the given sentence. "Developing indigenous technology is important to the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise Computer Awareness	(d) comforting ir with same relationship AFTER : BEFORE : SECOND ORARY : HISTORIC : PAST OR : PREDECESSOR Computer Awareness equivalent of the hexadecimal operation (b) 5246 (c) 2849 (d) 5344 2's complement of 00110101 1001 1100? 1100 1011 (b) 1100 1010 0110 0011 0110 0100 (d) 1100 1010 1111 1111 117. How many bytes are there in a nibble?	1001				.		(c) Decent		(d) Gentle		
(a) FIRST : SECOND : HISTORIC (b) CONTEMPORARY : HISTORIC (c) PRESENT : PAST (d) SUCCESSOR : PREDECESSOR : Computer Awareness Computer Awareness "Developing indigenous technology is important to the nation to self-sufficiency." (a) Intelligent (b) Native (c) Capitalistic (d) Wise	The with same relationship AFTER: BEFORE SECOND ORARY: HISTORIC PAST OR: PREDECESSOR Computer Awareness equivalent of the hexadecimal operation (b) $X = 1.0$, $Y = 1.0$ (c) $X = 0.0$, $Y = 1.0$ (d) $X = 0.0$, $Y = 0.0$ (e) $X = 0.0$, $Y = 1.0$ (f) $X = 0.0$, $Y = 0.0$ (g) $X = 0.0$, $Y = 0.0$ (h) $X = 0.0$, $Y = 0.0$ (c) $X = 0.0$, $Y = 0.0$ (d) $X = 0.0$, $Y = 0.0$ (e) $X = 0.0$, $Y = 0.0$ (f) $X = 0.0$, $Y = 0.0$ (g) $X = 0.0$, $Y = 0.0$ (h) $X = 0.0$, $Y = 0.0$ (c) $X = 0.0$, $Y = 0.0$ (d) $X = 0.0$, $Y = 0.0$ (e) $X = 0.0$, $Y = 0.0$ (f) $X = 0.0$, $Y = 0.0$ (g) $X = 0.0$, $Y = 0.0$ (h) $X = 0.0$, $Y = 0.0$ (h) $X = 0.0$, $Y = 0.0$ (c) $X = 0.0$, $Y = 0.0$ (d) $X = 0.0$, $Y = 0.0$ (e) $X = 0.0$, $Y = 0.0$ (f) $X = 0.0$, $Y = 0.0$ (g) $X = 0.0$ (h) $X = 0.0$ (c) $X = 0.0$ (d) $X = 0.0$ (e) $X = 0.0$ (f) $X = 0.0$ (f) $X = 0.0$ (g) $X = 0.0$ (h) $X = 0.0$ (h) $X = 0.0$ (c) $X = 0.0$ (d) $X = 0.0$ (e) $X = 0.0$ (f) $X = 0.0$ (f) $X = 0.0$ (g) $X = 0.0$ (h) $X = 0.0$ (h) $X = 0.0$ (c) $X = 0.0$ (d) $X = 0.0$ (e) $X = 0.0$ (f) $X = 0.0$ (f) $X = 0.0$ (f) $X = 0.0$ (g) $X = 0.0$ (h) $X = $		1933)	•			110				y with the w	vord
(a) FIRST : SECOND	SECOND ORARY: HISTORIC PAST OR : PREDECESSOR Computer Awareness equivalent of the hexadecimal operation (a) $X = 1.0$, $Y = 1.0$ (b) $X = 1.0$, $Y = 0.0$ (c) $X = 0.0$, $Y = 1.0$ (d) $X = 0.0$, $Y = 0.0$ (e) $X = 0.0$, $Y = 0.0$ (f) 5246 (g) 2849 (g) 5344 116. The Boolean expression $X = X = X = X = X = X = X = X = X = X $	104.	Select the pa	ir with san	ne relationshii	AFTER : BEFORE		forest and the second			5-10060 NO 40 -	
(b) CONTEMPORARY : HISTORIC (a) Intelligent (b) Native (c) PRESENT : PAST (c) Capitalistic (d) Wise Computer Awareness	ORARY : HISTORIC : PAST (a) Intelligent (b) Native Computer Awareness equivalent of the hexadecimal operation (a) $X = 1.0$, $Y = 1.0$ (b) $X = 1.0$, $Y = 0.0$ (c) $X = 0.0$, $Y = 1.0$ (c) $X = 0.0$, $Y = 0.0$ (b) 5246 (c) 2849 (d) 5344 2's complement of 00110101 1001 1100? (a) $X \cdot (1 + Y)$ (b) X 1100 1011 (b) 1100 1010 0011 (c) $X \cdot 1$ (d) All of these 0110 0100 (d) 1100 1010 1111 1111 117. How many bytes are there in a nibble?				-						nportant to l	lead
(d) SUCCESSOR : PREDECESSOR (c) Capitalistic (d) Wise Computer Awareness	Computer Awareness equivalent of the hexadecimal operation (a) $X = 1.0, Y = 1.0$ (b) $X = 1.0, Y = 0.0$ (c) $X = 0.0, Y = 1.0$ (d) $X = 0.0, Y = 0.0$ (e) $X = 0.0, Y = 1.0$ (f) $X = 0.0, Y = 0.0$ (g) $X = 0.0, Y = 1.0$ (g) $X = 0.0, Y = 0.0$ (h) 5246 (c) 2849 (d) 5344 116. The Boolean expression $X = X = X = X = X = X = X = X = X = X $		(b) CONTEMP	ORARY :	HISTORIC							
Computer Awareness	Computer Awareness equivalent of the hexadecimal operation (a) $X = 1.0$, $Y = 1.0$ (b) $X = 1.0$, $Y = 0.0$ (c) $X = 0.0$, $Y = 1.0$ (d) $X = 0.0$, $Y = 0.0$ (e) $X = 0.0$, $Y = 1.0$ (d) $X = 0.0$, $Y = 0.0$ (e) $X = 0.0$, $Y = 1.0$ (f) $X = 0.0$, $Y = 0.0$ (g) $X = 0.0$, $Y = 0.0$ (h) 5246 (c) 2849 (d) 5344 116. The Boolean expression $X = (X + Y)$ is same as 2's complement of 00110101 1001 1100? (a) $X = (1 + Y)$ (b) $X = (1 + Y)$ (c) $X = (1 + Y)$ (d) All of these 0110 0100 (d) 1100 1010 1111 1111 117. How many bytes are there in a nibble?				N. 1519	104						
	equivalent of the hexadecimal operation (a) $X = 1.0$, $Y = 1.0$ (b) $X = 1.0$, $Y = 0.0$ (c) $X = 0.0$, $Y = 1.0$ (d) $X = 0.0$, $Y = 0.0$ (e) $X = 0.0$, $Y = 1.0$ (d) $X = 0.0$, $Y = 0.0$ 116. The Boolean expression $X (X + Y)$ is same as 2's complement of 00110101 1001 1100? (a) $X = 1.0$, $Y = 1.0$ (b) $X = 0.0$, $Y = 0.0$ (c) $X = 0.0$, $Y = 0.0$ (d) $X = 0.0$, $Y = 0.0$ (e) $X = 0.0$, $Y = 1.0$ (f) $X = 0.0$, $Y = 0.0$ (ii) $X = 0.0$, $Y = 0.0$ (iii) $X = 0.0$, $Y = 0.0$ (iv) $X = 0.$		(d) SUCCESS	OR :	PREDECESSO	H		Marie Nove Consideration				
	equivalent of the hexadecimal operation (a) $X = 1.0$, $Y = 1.0$ (b) $X = 1.0$, $Y = 0.0$ (c) $X = 0.0$, $Y = 1.0$ (d) $X = 0.0$, $Y = 0.0$ (e) $X = 0.0$, $Y = 1.0$ (d) $X = 0.0$, $Y = 0.0$ 116. The Boolean expression $X (X + Y)$ is same as 2's complement of 00110101 1001 1100? (a) $X = 1.0$, $Y = 1.0$ (b) $X = 0.0$, $Y = 0.0$ (c) $X = 0.0$, $Y = 0.0$ (d) $X = 0.0$, $Y = 0.0$ (e) $X = 0.0$, $Y = 1.0$ (f) $X = 0.0$, $Y = 0.0$ (ii) $X = 0.0$, $Y = 0.0$ (iii) $X = 0.0$, $Y = 0.0$ (iv) $X = 0.$			50%								
A SOUTH OF THE PERSON NAMED AND ADDRESS OF THE PERSON NAMED ADDRESS OF THE	(c) $X = 0.0$, $Y = 1.0$ (d) $X = 0.0$, $Y = 0.0$ (b) 5246 (c) 2849 (d) 5344 116. The Boolean expression $X (X + Y)$ is same as 2's complement of 00110101 1001 1100? (a) $X = 0.0$, $Y = 0.0$ (b) $X = 0.0$, $Y = 0.0$ (c) $X = 0.0$, $Y = 0.0$ (d) $X = 0.0$, $Y = 0.0$ (e) $X = 0.0$, $Y = 0.0$ (f) $X = 0.0$ (f) X				C	omputer	Aw	arenes	S			
A10 + B21 is (c) $X = 0.0, Y = 1.0$ (d) $X = 0.0, Y = 0.0$	2's complement of 00110101 1001 1100? (a) X (1 + Y) (b) X 1100 1011 (b) 1100 1010 0110 0011 (c) X 1 (d) All of these 0110 0100 (d) 1100 1010 1111 1111 1117 117. How many bytes are there in a nibble?	111.	A10+ B21 is		nt of the hex	adecimal operation		하게 얼마하다 그 아니다 그리아 아니다.		선생님이 아니다 그 아니다 아니다 아니다.		
(a) 5425 (b) 5246 (c) 2849 (d) 5344 116. The Boolean expression $X(X+Y)$ is same as	1100 1011 (b) 1100 1010 0110 0011 (c) X · 1 (d) All of these 0110 0100 (d) 1100 1010 1111 1111 1111 117. How many bytes are there in a nibble?		(a) 5425	(b) 5246	(c) 2849	(d) 5344	116.	. The Boolean e	expression X (X+Y) is sar	ne as	
112. What is the 2's complement of 00110101 1001 1100? (a) $X (1 + Y)$ (b) X	0110 0100 (d) 1100 1010 1111 1111 1117 117. How many bytes are there in a nibble?	112.	What is the	2's complei	ment of 00110	101 1001 1100?		(a) $X \cdot (1 + Y)$		(b) X	28	
	117. How many bytes are there in a mibble:							(c) X · 1		(d) All of these		
112. How many bytes are there in a middle:	on of 111 ₂ by 101 ₂ is (a) one-fourth (b) half	0.5 0.500 (0.000)	sa sa areastreaser files			010 1111 1111	117.	. How many by	tes are there i	in a nibble?		
	TOTAL STATE OF THE PROPERTY OF	113.	Multiplication	on of 111_2 b	y 101 ₂ is							
(a) 110011_2 (b) 100011_2 (c) 111100_2 (d) 000101_2 (c) 2 (d) 4	(b) 100011_2 (c) 111100_2 (d) 000101_2 (c) 2 (d) 4		(a) 110011 ₂	(b) 100011 ₂	(c) 111100	2 (d) 000101 ₂		(c) 2		(d) 4		
114. What is the 8 bit 2's complement representation of the negative integer-93? 118. The number of bit strings of length 8, that start wis bit 0 or end with the bits 11 is		114.			omplement re	presentation of the	118.				at start with	the
(a) 1010011 (b) 10100010 (a) 132 (b) 180 (c) 256 (d) 160	ger-93?		(a) 1010011		(b) 101000	11.0		(a) 132 (l	b) 180	(c) 256	(d) 160	
(c) OXA2 (d) None of these 119. The result of multiplication of the numbers (10101	(a) 122 (b) 190 (c) 256 (d) 160		(c) 0XA2		(d) None o	of these	119.	The result of r	multiplication	of the numb	ers $(10101)_2$	and
115. Consider the values $A = 2.0 \times 10^{30}$, $B = -2.0 \times 10^{30}$, (11101) ₂ in hexadecimal form is	(b) 10100010 (a) 132 (b) 180 (c) 256 (d) 160	115.	Consider the	values A =	$= 2.0 \times 10^{30}, B =$	$=-2.0\times10^{80}$		$(11101)_2$ in he	xadecimal for	m is		
$C = 1.0 \times 10^{80}$. Assume, that the floating point numbers (a) 609 (b) 216	(a) 132 (b) 180 (c) 256 (d) 160 (d) None of these (10101) ₂ and values $A = 2.0 \times 10^{30}$, $B = -2.0 \times 10^{30}$, (11101) ₂ in hexadecimal form is		$C=1.0\times10^{80}$. Assume,	that the float	ting point numbers		18				
	(a) 132 (b) 180 (c) 256 (d) 160 (d) None of these 119. The result of multiplication of the numbers $(10101)_2$ and values $A = 2.0 \times 10^{30}$, $B = -2.0 \times 10^{30}$, Assume, that the floating point numbers (a) 609 (b) 216							300000 A		8388		
7 77 7 4 4 4 4	(b) 10100010 (a) 132 (b) 180 (c) 256 (d) 160 (d) None of these 119. The result of multiplication of the numbers $(10101)_2$ and values $A = 2.0 \times 10^{30}$, $B = -2.0 \times 10^{30}$, (11101) ₂ in hexadecimal form is (a) 609 (b) 216 (c) 261 (d) 906					e of operations are	120.	The binary eq	uivalent of (53	31.53125) ₁₀ i	s	
and Y, when the following sequence of operations are 120. The binary equivalent of (531.53125) to is	(a) 132 (b) 180 (c) 256 (d) 160 (b) 10100010 (c) None of these 119. The result of multiplication of the numbers (10101) ₂ and values $A = 2.0 \times 10^{30}$, $B = -2.0 \times 10^{30}$, Assume, that the floating point numbers ted with 32 bits. What are the values of X (c) 261 (d) 180 (c) 256 (d) 160 (11101) ₂ in hexadecimal form is (a) 609 (b) 216 (c) 261 (d) 906 120. The binary equivalent of (531.53125) ₁₀ is			95500								
and Y, when the following sequence of operations are executed on a computer? (a) $(1001010011100001)_2$ (b) $(100001001110011)_2$	(a) 132 (b) 180 (c) 256 (d) 160 (b) 10100010 (c) None of these 119. The result of multiplication of the numbers (10101) ₂ and (11101) ₂ in hexadecimal form is (a) 609 (b) 216 (c) 261 (d) 906 120. The binary equivalent of (531.53125) ₁₀ is (a) (1001010011100001) ₂ (b) (100001001110011) ₂		X = X + C	155	Y = Y + B		20	(c) (1010010011.	11001)2	(a) (10 000 1001	1.10001)2	
negative integer-55:			negative inte	eger-93?								
(a) 1010011 (b) 10100010 (a) 132 (b) 180 (c) 256 (d) 160	861-29;		(a) 1010011		(b) 101000	11.0		(a) 132 (l	b) 180	(c) 256	(d) 160	
(c) OXA2 (d) None of these 119. The result of multiplication of the numbers (10101	(a) 192 (b) 190 (c) 256 (d) 160		(c) 0XA2		(d) None of	of these	119.	The result of r	nultiplication	of the numb	ers (10101) ₂	and
	(b) 10100010 (a) 132 (b) 180 (c) 256 (d) 160 (d) None of these 119. The result of multiplication of the numbers (10101) ₂ and	115.	Consider the	values A =	$=2.0\times10^{30}, B=$	$=-2.0\times10^{30}$		$(11101)_2$ in her	xadecimal for	m is		
	(a) 132 (b) 180 (c) 256 (d) 160 (d) None of these (10101) ₂ and values $A = 2.0 \times 10^{30}$, $B = -2.0 \times 10^{30}$, (11101) ₂ in hexadecimal form is							18				
are represented with 32 bits. What are the values of X (c) 261 (d) 906	(a) 132 (b) 180 (c) 256 (d) 160 (d) None of these 119. The result of multiplication of the numbers $(10101)_2$ and values $A = 2.0 \times 10^{30}$, $B = -2.0 \times 10^{30}$, (11101) ₂ in hexadecimal form is (a) 609 (b) 216		and Y, when	n the follo	wing sequenc			The binary eq	uivalent of (53	31.53125) ₁₀ i	s	
and Y, when the following sequence of operations are 120. The binary equivalent of (531.53125) to is	(a) 132 (b) 180 (c) 256 (d) 160 (b) 10100010 (c) None of these 119. The result of multiplication of the numbers (10101) ₂ and values $A = 2.0 \times 10^{30}$, $B = -2.0 \times 10^{30}$, Assume, that the floating point numbers ted with 32 bits. What are the values of X (c) 261 (d) 180 (c) 256 (d) 160 (11101) ₂ in hexadecimal form is (a) 609 (b) 216 (c) 261 (d) 906 120. The binary equivalent of (531.53125) ₁₀ is			95500				(a) (1001010011.	.100001) ₂	(b) (100001001	1.10011)2	*
and Y, when the following sequence of operations are executed on a computer? (a) $(1001010011100001)_2$ (b) $(100001001110011)_2$	(a) 132 (b) 180 (c) 256 (d) 160 (b) 10100010 (c) None of these 119. The result of multiplication of the numbers (10101) ₂ and (11101) ₂ in hexadecimal form is (a) 609 (b) 216 (c) 261 (d) 906 120. The binary equivalent of (531.53125) ₁₀ is (a) (1001010011100001) ₂ (b) (100001001110011) ₂			155				(c) (1010010011.	11001)2	(d) (100001001	1.10001) ₂	
and Y, when the following sequence of operations are executed on a computer? $X = A + B$ $Y = A + C$ 120. The binary equivalent of (531.53125) ₁₀ is (a) (10010100111100001) ₂ (b) (1000010011100011) ₂ (c) (1010010011110011) ₃ (d) (1000010011100011) ₄	(a) 132 (b) 180 (c) 256 (d) 160 (b) 10100010 (c) None of these 119. The result of multiplication of the numbers $(10101)_2$ and values $A = 2.0 \times 10^{30}$, $B = -2.0 \times 10^{30}$, Assume, that the floating point numbers ted with 32 bits. What are the values of X is the following sequence of operations are a computer? $Y = A + C$ (a) 132 (b) 180 (c) 256 (d) 160 (11101) ₂ in hexadecimal form is (a) 609 (b) 216 (c) 261 (d) 906 120. The binary equivalent of $(531.53125)_{10}$ is (a) $(10010100111100001)_2$ (b) $(10000100111100011)_2$											





(Best COACHING for MCA ENTRANCE in INDIA)

Answer with Explanations

1. (b) Total alphabet in English = 26

Two words can be selected from 26 alphabet in $^{26}P_1 \times ^{26}P_1$ ways.

Now, next three digits from 0 to 3

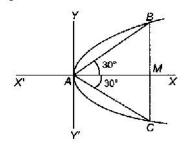
i.e. 0, 1, 2, 3 are selected.

$$= {}^{4}P_{1} \times {}^{4}P_{1} \times {}^{4}P_{1} \times {}^{4}P_{1} = ({}^{4}P_{1})^{3}$$

Password =
$${}^{26}P_1 \times {}^{26}P_1 \times ({}^4P_1)^3$$

= $({}^{26}P_1)^2 \times ({}^4P_1)^3$

(d) Let length of side of ΔABC be I.



i.e.
$$AB = I$$

Then.

..

$$\cos 30^{\circ} = \frac{AM}{AB}$$

$$AM = x \cos 30^{\circ}$$

$$AM = l \frac{\sqrt{3}}{2}$$

and

$$\frac{BM}{AB} = \sin 30^{\circ}$$

$$BM = \frac{I}{2}$$

 \therefore The coordinate of B are $\left(\frac{i\sqrt{3}}{2}, \frac{l}{2}\right)$

B lies on the parabola $y^2 = 4ax$

$$\frac{l^2}{4} = 4 \text{ al } \frac{\sqrt{3}}{2}$$

$$I = 8 a \sqrt{3}$$

3. (b) Let probability of sale of brand 1 is P(A). Similarly, for brand 2 is P(B)and brand 3 is P(C)

$$P(A) = \frac{50}{100} = \frac{1}{2}$$

$$P(B) = \frac{30}{100} = \frac{3}{10}$$

$$P(C) = \frac{20}{100} = \frac{1}{5}$$

and also let the probability of required warranty work of brand (1) is P(A).

Similarly, for brand 2 is P(B)

and for brand 3 is P(C).

$$P(A) = \frac{25}{100} = \frac{1}{4}$$

$$P(B) = \frac{20}{100} = \frac{1}{5}$$

$$P(C) = \frac{10}{100} = \frac{1}{10}$$

Now, required probability

$$= \frac{1}{2} \times \frac{1}{4} + \frac{3}{10} \times \frac{1}{5} + \frac{1}{5} \times \frac{1}{10}$$

$$= \frac{1}{8} + \frac{3}{50} + \frac{1}{50} = \frac{50 + 24 + 8}{400}$$

$$= \frac{82}{400}$$

$$= 0.205$$

4. (c) Given, lines are

$$\sqrt{3}x - y = 4k\sqrt{3}$$

...(i)

 $k(\sqrt{3}x) + ky = 4\sqrt{3}$ and

$$\Rightarrow \qquad \sqrt{3}x + y = \frac{4\sqrt{3}}{k} \qquad \dots \text{(ii)}$$

From Eqs. (i) and (ii)

$$3x^2 - y^2 = 48$$

$$\frac{x^2}{16} - \frac{y^2}{48} = 1$$

which is a hyperbola.

$$a = 4, b = 4\sqrt{3}$$

$$e = \sqrt{1 + \frac{b^2}{8^2}} = \sqrt{\frac{16 + 48}{16}} = \sqrt{\frac{64}{16}} = 2$$

(b) We have,

$$P = 2\hat{i} - 5\hat{j} + 6\hat{k}$$

$$\mathbf{Q} = -\hat{\mathbf{I}} + 2\hat{\mathbf{I}} - \hat{\mathbf{k}}$$

Position vector of -

$$\mathbf{A} = 4\hat{\mathbf{i}} - 3\hat{\mathbf{j}} - 2\hat{\mathbf{k}}$$

and

..

...(i)

$$\mathbf{B} = 6\hat{\mathbf{i}} + \hat{\mathbf{j}} - 3\hat{\mathbf{k}}$$

$$\mathbf{d} = \mathbf{A}\mathbf{B} = 2\hat{\mathbf{i}} + 4\hat{\mathbf{i}} - \hat{\mathbf{k}}$$

$$\mathbf{F} = \mathbf{P} + \mathbf{Q} = \hat{\mathbf{i}} - 3\hat{\mathbf{j}} + 5\hat{\mathbf{k}}$$

Wark done =
$$\mathbf{F} \cdot \mathbf{d}$$

$$= (\hat{\mathbf{i}} - 3\hat{\mathbf{j}} + 5\hat{\mathbf{k}}) \cdot (2\hat{\mathbf{i}} + 4\hat{\mathbf{j}} - \hat{\mathbf{k}})$$

= 2 - 12 - 5 = -15 units

(b) We have,

$$I = \int \sqrt{x} e^{\sqrt{x}} dx \qquad \dots (i)$$

Put

$$\Rightarrow \frac{1}{2\sqrt{x}} dx = dx$$





(Best COACHING for MCA ENTRANC

NIMCET Solved Paper 2014

$$dx = 2\sqrt{x} dt$$

$$l = 2\int \sqrt{x} e^{t} t dt = 2\int t^{2} \cdot e^{t} dt$$

$$= 2[t^{2} \cdot e^{t} - 2\int t e^{t} dt]$$

$$= 2[t^{2} e^{t} - 2\{t e^{t} - e^{t}]\} + C$$

$$= 2e^{t}[t^{2} - 2t + 2] + C$$

$$= e^{\sqrt{x}}[2x - 4\sqrt{x} + 4] + C$$

7. (c) We have,

$$\mathbf{a} = -4\hat{\mathbf{i}} + 2\hat{\mathbf{j}}$$
 ...(i)
 $\mathbf{b} = 2\hat{\mathbf{i}} + \hat{\mathbf{j}}$...(ii)
 $\mathbf{c} = 2\hat{\mathbf{i}} + 3\hat{\mathbf{j}}$...(iii)

$$c = ma + nb$$

From Eqs. (i), (ii), (iii) and (iv),

$$2\hat{i} + 3\hat{j} = m(-4\hat{i} + 2\hat{j}) + n(2\hat{i} + \hat{j})$$

2 = -4m + 2n

$$\Rightarrow 2 = -4m + 2n \qquad \dots(v)$$

$$\Rightarrow 3 = 2m + n \qquad \dots(vi)$$

$$\Rightarrow \qquad 2 = -4m + 2(3 - 2m)$$

$$\Rightarrow \qquad 2 = -4m + 6 - 4m$$

$$\Rightarrow \qquad 8 \, m = 4 \Rightarrow m = \frac{1}{2}$$

From Eq. (v),

$$2 = -2 + 2$$

$$\Rightarrow \qquad n = 2$$

$$\therefore \qquad m + n = \frac{1}{2} + 2$$

$$\Rightarrow \qquad m + n = \frac{5}{2}$$

8. (c) We have,
$$\int_{0}^{\pi/4} \log(1 + \tan x) dx$$

Let
$$I = \int_0^{\pi/4} \log(1 + \tan x) dx$$

$$= \int_0^{\pi/4} \log\left[1 + \tan\left(\frac{\pi}{4} - x\right)\right] dx$$

$$= \int_0^{\pi/4} \log\left(1 + \frac{\tan \pi/4 - \tan x}{1 + \tan \pi/4 \tan x}\right) dx$$

$$= \int_0^{\pi/4} \log\left(1 + \frac{1 - \tan x}{1 + \tan x}\right) dx$$

$$= \int_0^{\pi/4} \log\left(\frac{1 + \tan x + 1 - \tan x}{1 + \tan x}\right) dx$$

$$= \int_0^{\pi/4} \log\left(\frac{2}{1 + \tan x}\right) dx$$

$$\Rightarrow 2I = \log 2[x]_0^{\pi/4}$$

 $I = \log 2 [\pi/4]$

 $I = \frac{\pi}{8} \log 2$

$$= (^{31}C_s)^7 (^{30}C_s)^4 (^{28}C_s)^5$$

$$I = \int_{1}^{9} [x] dx$$

$$= \int_{1}^{2} 1 dx + \int_{2}^{3} 2 dx + \int_{3}^{4} 3 dx + \int_{4}^{5} 4 dx$$

$$+ \int_{5}^{6} 5 dx + \int_{6}^{7} 6 dx + \int_{7}^{8} 7 dx + \int_{8}^{9} 8 dx$$

$$= (2 - 1) + 2(3 - 2) + 3(4 - 3) + 4(5 - 4) + 5(6 - 5)$$

$$+ 6(7 - 6) + 7(8 - 7) + 8(9 - 8)$$

$$= 1 + 2 + \dots + 8$$

$$= \frac{8 \times 9}{2} = 36$$

11. (c) We have,

...(iv)

Total number of students, n = 200Combined mean. $\bar{x} = 40$ Misread data, $(x_1, x_2) = 34,53$ Correct data, $(x_3, x_4) = (43, 35)$

Correct mean =
$$\frac{\bar{x}n - (34 + 53) + (43 + 35)}{200}$$

= $\frac{200 \times 40 - 87 + 78}{200}$
= $\frac{7991}{200} = 39.95$

12. (b) If given matrix
$$A = \begin{bmatrix} -1 & 3 & 2 \\ 1 & k & -3 \\ 1 & 4 & 5 \end{bmatrix}$$
 is

invertible, then $|A| \neq 0$ |A| = -1(5k + 12) - 3(3 + 5) + 2(4 - k)=-5k-12-24+8-2k= -28 - 7k $|A| \neq 0$ $7k \neq -28$ $k \neq -4$

Mean of the AP,

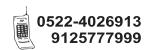
$$\bar{x} = \frac{1}{2n+1} [a+a+d+...+a+2nd]$$

$$= \frac{1}{2n+1} \left[\frac{2n+1}{2} (a+a+2nd) \right]$$

$$= a+nd$$

.. Mean deviation from the mean

$$= \frac{1}{2n+1} \sum_{r=0}^{2n} |(a+r\sigma) - (a+n\sigma)|$$





(Best COACHING for MCA ENTRANCE in INDIA)

• •

NIMCET Solved Paper 2014

$$= \frac{1}{2n+1} \sum_{r=0}^{2n} (r-n)d \mid$$

$$= \frac{1}{2n+1} 2d (1+2+3+...+n)$$

$$= \frac{1}{2n+1} \frac{2d [n(n+1)]}{2}$$

$$= \frac{n(n+1)d}{2n+1}$$

14. (c) We have.

$$(2x)^{\log 2} = (3y)^{\log 3}$$

$$3^{\log x} = 2^{\log y}$$

If x_0 , y_0 are the solution of these equations.

$$(2x_0)^{\log 2} = (3y_0)^{\log 3}$$

Taking log on both sides,

$$\log 2\log(2x_0) = \log 3\log(3y_0)$$
$$\frac{\log 2}{\log 3}\log(2x_0) = \log(3y_0)$$

$$\frac{\log 2}{\log 3} (\log 2 + \log x_0) = \log 3 + \log y_0$$
 ...(iii)

Taking log on both sides of Eq. (ii)

$$\log x_0 \log 3 = \log y_0 \log 2$$
$$\log y_0 = \frac{\log 3}{\log 2} \log x_0$$

From Eqs. (iii) and (iv),

$$\frac{\log 2}{\log 3} (\log 2 + \log x_0) = \log 3 + \frac{\log 3}{\log 2} \cdot \log x_0$$

$$\Rightarrow \log x_0 \left[\frac{\log 2}{\log 3} - \frac{\log 3}{\log 2} \right] = \log 3 - \log 2 \cdot \frac{\log 2}{\log 3}$$

$$\Rightarrow \log x_0 \left[\frac{\log 2}{\log 3} - \frac{\log 3}{\log 2} \right] = \log 2 \left[\frac{\log 3}{\log 2} - \frac{\log 2}{\log 3} \right]$$

$$\Rightarrow$$

$$\log x_0 = -\log 2$$

$$\log x_0 = \log 2^{-1}$$

$$x_0 = \frac{1}{2}$$

15. (c) We have,

= tan(90° - 89°) tan 89° tan(90° - 88°) tan 88°...

= cot 89° tan 89° - tan 88° cot 88° ...

=1

16. (a) We have,
$$2x^2 + 2px + p^2 = 0$$

$$\alpha + \beta = -p$$

$$\beta = \frac{\rho^2}{2} \qquad \dots (i)$$

...(ii)

and α^4 and β^4 are the roots of $x^2 - rx + s = 0$.

$$\alpha^4 + \beta^4 = r$$

$$\alpha^4 \beta^4 = s$$

Now,
$$2x^2 - 4p^2x + 4p - 2r = 0$$

$$D = 16\rho^4 - 4[2(\rho^4 - 2r)]$$

$$= 16\rho^4 - 8\rho^4 + 16r$$

$$= 8(\rho^4 + 2r)$$

 $D = B^2 - 4AC$

= 8
$$[4\alpha^2\beta^2 + 2(\alpha^4 + \beta^4)]$$

=
$$16[(\alpha + \beta)^2 - 2\alpha\beta]^2$$

= $16(\rho^2 - \rho^2)$

Hence, the roots of the equation

$$2x^2 - 4p^2x + 4p - 2r = 0$$
 are equal.

17. (c) Total number of English alphabet = 26

Total number of arrangements = ${}^{24}P_5$ 201-2

18. (c) We have.

...(i)

...(ii)

...(iv)

$$-2x + y + z = I \qquad \dots (i)$$

$$x - 2y + z = m \qquad \dots (ii)$$

$$x + y - 2z = n \qquad \qquad \dots (iii)$$

l+m+n=0Given.

Coefficient matrix will be

$$[A_k] = \begin{bmatrix} -2 & 1 & 1 & l \\ 1 & -2 & 1 & m \\ 1 & 1 & -2 & n \end{bmatrix}$$

Applying $R_1 \rightarrow R_1 + R_2 + R_3$

$$= \begin{bmatrix} 0 & 0 & 0 & l+m+n \\ 1 & -2 & 1 & m \\ 1 & 1 & -2 & n \end{bmatrix}$$
$$[A_k] = \begin{bmatrix} 0 & 0 & 0 & 0 \\ 1 & -2 & 1 & m \\ 1 & 1 & -2 & n \end{bmatrix} [\because l+m+n=0]$$

$$p[A_k]=2$$

 $p[A_k] < \text{number of variables}.$

Hence, it has infinitely many solutions.

19. (a) We have

٠.

$$\mathbf{A} = 4\hat{\mathbf{i}} + 3\hat{\mathbf{j}} + \hat{\mathbf{k}}$$

$$\mathbf{B} = 2\hat{\mathbf{i}} - \hat{\mathbf{j}} + 2\hat{\mathbf{k}}$$

N is perpendicular to both A and B.

$$\hat{\mathbf{N}} = \lambda(\mathbf{A} \times \mathbf{B})$$

$$\hat{\mathbf{N}} = \lambda \begin{bmatrix} \hat{\mathbf{i}} & \hat{\mathbf{j}} & \hat{\mathbf{k}} \\ 4 & 3 & 1 \\ 2 & -1 & 2 \end{bmatrix}$$
$$= \lambda [\hat{\mathbf{i}}(6+1) - \hat{\mathbf{j}}(8-2) + \hat{\mathbf{k}}(-4-6)]$$

$$= \lambda [7\hat{\mathbf{1}} - 6\hat{\mathbf{j}} - 10\hat{\mathbf{k}}]$$

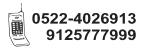
$$|\hat{\mathbf{N}}| = 1$$
 [given]

$$|\hat{\mathbf{N}}| = \lambda \sqrt{185} = 1$$

$$\Rightarrow \qquad \lambda = \frac{1}{\sqrt{185}}$$

$$\hat{N} = \frac{1}{\sqrt{185}} (7\hat{i} - 6\hat{j} - 10\hat{k})$$





(Best COACHING for MCA ENTRANC

NIMCET Solved Paper 2014

20. (d) Let
$$I = \int \frac{(x+1)}{x(xe^x+1)} dx$$

Put $xe^x = t$
 $\Rightarrow (xe^x + e^x) dx = dt$

$$\therefore I = \int \frac{dt}{t(t+1)} = \int \left(\frac{1}{t} - \frac{1}{t+1}\right) dt$$

$$= \log t - \log(t+1) + C$$

$$= \log \frac{t}{t+1}$$

$$= \log \left(\frac{xe^x}{xe^x+1}\right) + C$$

$$c = \mathbf{a} + \mathbf{b} \text{ and } |\mathbf{a}| = |\mathbf{b}| = |\mathbf{c}| = 2$$

$$|\mathbf{c}|^2 = |\mathbf{a}|^2 + |\mathbf{b}|^2 + 2|\mathbf{a}| \cdot |\mathbf{b}| \cos \theta$$

$$\Rightarrow \qquad 4 = 4 + 4 + 2 \cdot 2 \cdot 2 \cos \theta$$

$$\Rightarrow \qquad -4 = 8 \cos \theta$$

$$\Rightarrow \qquad \cos \theta = -\frac{1}{2}$$

$$|\mathbf{a} - \mathbf{b}|^2 = |\mathbf{a}|^2 + |\mathbf{b}|^2 - 2|\mathbf{a}| |\mathbf{b}| \cos \theta$$

$$= 4 + 4 - 8 \cos \theta = 8 + 8 \times \frac{1}{2}$$

$$\Rightarrow \qquad |\mathbf{a} - \mathbf{b}|^2 = 12$$

$$\Rightarrow \qquad |\mathbf{a} - \mathbf{b}| = 2\sqrt{3}$$

22. (c) We have.

$$x^{2} + y\sqrt{xy} = 336$$

$$\Rightarrow \sqrt{x} (x\sqrt{x} + y\sqrt{y}) = 336$$
and
$$y^{2} + x\sqrt{xy} = 112$$

$$\Rightarrow \sqrt{y} (y\sqrt{y} + x\sqrt{x}) = 112$$
Dividing Eq. (i) by Eq. (ii) we get

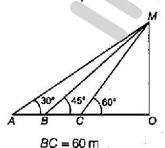
Dividing Eq. (i) by Eq. (ii), we get

$$\frac{\sqrt{x}}{\sqrt{y}} = 3 \qquad \text{or } x = 9y$$

From Eq. (i),
$$81y^2 + y\sqrt{9y^2} = 336$$

$$x + y = 18 + 2 = 20$$

23. (d)



Let
$$AB = x$$
, $OC = d$, $OM = h$

$$\tan 30^{\circ} = \frac{OM}{AO}$$

$$OA = \sqrt{3} OM \qquad ...(i)$$

In
$$\Delta BOM$$
,

$$\tan 45^{\circ} = \frac{5}{60 + d}$$

$$\Rightarrow OM = 60 + d$$

$$\Rightarrow h = 60 + d \qquad \dots(ii)$$

$$\tan 60^{\circ} = \frac{OM}{OC}$$

$$\Rightarrow \qquad \sqrt{3} = \frac{h}{d}$$

$$\Rightarrow \qquad \sqrt{3} = \frac{60 + d}{d}$$

$$d = 30(\sqrt{3} + 1) \qquad \dots (iii)$$

From Eq. (i)

$$x + 60 + d = \sqrt{3} h$$

$$\Rightarrow x + 60 + 30(\sqrt{3} + 1) = \sqrt{3} [60 + 30(\sqrt{3} + 1)]$$

$$\Rightarrow x = 60\sqrt{3} + 90 + 30\sqrt{3} - 60 - 30\sqrt{3} - 30$$

$$\Rightarrow x = 60\sqrt{3}$$

$$AB = 60\sqrt{3}$$

24. (c) We have,

$$y^{2} = kx - 8$$

$$\Rightarrow y^{2} = k(x - \frac{8}{k})$$
which is a form of $y^{2} = 4AX$
So, $X = x - 8/k$, $A = k/4$
 \therefore Equation of directrix, $X = -A$

$$\Rightarrow \qquad x - \frac{6}{k} = -\frac{x}{4}$$

$$\Rightarrow \qquad x = \frac{8}{k} - \frac{k}{2}$$

$$\Rightarrow 1 = \frac{8}{\kappa} - \frac{\kappa}{4}$$

$$\Rightarrow \qquad 4k = 32 - k^2$$

$$\Rightarrow \qquad k^2 + 4k - 32 = 0$$

$$\Rightarrow k^2 + 8k - 4k - 32 = 0$$

$$(k+8)(k-4)=0$$

 $k=4,-4$

25. (b) We have,

$$\sin x + a\cos x = b$$

On squaring both sides, we get $\sin^2 x + a^2 \cos^2 x + 2a \sin x \cos x = b^2$

...(i)





(Best COACHING for MCA ENTRANCE in INDIA)

NIMCET Solved Paper 2014

$$\Rightarrow 1 - \cos^2 x + a^2 - a^2 \sin^2 x + 2a \sin x \cos x = b^2$$

$$\Rightarrow a^2 \sin^2 x + \cos^2 x - 2a \sin x \cos x = 1 + a^2 - b^2$$

$$\Rightarrow (a \sin x - \cos x)^2 = 1 + a^2 - b^2$$

$$\Rightarrow [a \sin x - \cos x] = \sqrt{1 + a^2 - b^2}$$

26. (c) We have

$$f(x) = x^3 + ax^2 + bx + c$$

 $f'(x) = 3x^2 + 2ax + b$

Condition for no extremum

$$b^{2} - 4ac < 0$$

$$\Rightarrow 4a^{2} - 4 \times 3b < 0$$

$$\Rightarrow a^{2} - 3b < 0$$

$$\Rightarrow a^{2} < 3b$$

27. (b) We have,

$$n^{n-1}C_{r-1} = n \cdot \frac{(n-1)!}{(r-1)!(n-1-r+1)!}$$

$$= \frac{n!}{(r-1)!(n-r)!}$$

$$= \frac{r \cdot n!}{r \cdot (r-1)!(n-r)!}$$

$$= \frac{r \cdot n!}{r!(n-r)!}$$

$$= r \cdot ({}^{n}C_{r})$$

28. (c) Since, foci coincide,

29. (d) Total number of students = 8

Those who appear in Mathematics = 3 and other subjects = 5 ∴ Total number of ways = ${}^{6}C_{3} \times 5! \times 3$ = 14400

30. (b) We have.

$$\frac{(9+2x)^{1/2}(3+4x)}{(1-x)^{1/5}} = \frac{9\left(1+\frac{2}{9}x\right)^{1/2}\left(1+\frac{4}{3}x\right)}{(1-x)^{1/5}}$$

$$= \frac{9\left[1 + \frac{2}{9} \cdot \frac{1}{2}x + \dots\right] \left[1 + \frac{4}{3}x\right]}{(1 - x)^{1/5}}$$

$$= \frac{9\left[1 + \frac{x}{9} + \frac{4}{3}x\right]}{(1 - x)^{1/5}}$$

$$= \frac{9\left[1 + \frac{13x}{9}\right]}{(1 - x)^{1/5}}$$

$$= \frac{9(1 - x)^{-13/9}}{(1 - x)^{1/5}}$$

$$= 9(1 - x)^{-74/45}$$

$$= 9\left(1 + \frac{74}{45}x\right)$$

[neglecting higher powers of x] = $9 + \frac{74x}{5}$

31. (a) We have,

$$A = \{(x, y) \mid y = \frac{1}{x}, 0 \neq x \in R\} \qquad \dots (0)$$

 $B = \{(x, y) \mid y = -x \in R\}$(ii)

It is clear that from Eqs. (i) and (ii),

A
$$\cap$$
 B = ϕ
have, $s = \frac{a+b+c}{2}$
 $2s = a+b+c$
 $\frac{1}{3}s^2(s-a)(s-b)(s-c)$

32. (b) We have,

$$2s = a + b + c \qquad \dots (i)$$

and

$$s^{-}(s-a)(s-b)(s-c)$$

$$= \frac{1}{3}s[s(s-a)(s-b)(s-c)]$$

$$= \frac{1}{3}s[\Delta^{2}]$$

$$[\because \Delta = \sqrt{s(s-a)(s-b)(s-c)}]$$

$$= \frac{1}{3} \times 6 \times \Delta^{2}$$

$$= 2\Delta^{2}$$

33. We have,

$$x^{2} = 4y$$
On differentiating, $2x = 4\frac{dy}{dx}$
or
$$\frac{dy}{dx} = x/2$$

Slope of normal = -2/x

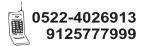
Let the common point of curve and normal be (h, k)

Then,
$$h^2 = 4k \qquad ...(i)$$

Equation of normal, $\frac{y-k}{y-k} = \frac{-2}{k}$

Normal passes through (1, 2),





(Best COACHING for MCA ENTRANCE in INDIA)

NIMCET Solved Paper 2014

$$\therefore \qquad \frac{2-k}{1-h} = \frac{-2}{h}$$

$$2h - kh = -2 + 2h$$

From Eq. (i),
$$2h - \frac{h^3}{4} = -2 + 2h$$

$$\frac{h^3}{4} = 2 \Rightarrow h = 2$$

k = 1, Equation of normal x + y - 3 = 0

Now, distance form origin (0, 0)

$$=\frac{|0+0-4|}{\sqrt{1+1}} = \frac{|-2|}{\sqrt{(2)}} = \sqrt{2}$$
 units

34. (d) We have

Total number of digits = 10

Now, total number of ways when r integers are taken from these digits, is ${}^{10}C_r$.

D < 0

∴ Required probability =
$$\frac{10!}{10^r!(10-r)!}$$

35. (a)
$$f(x) = x^2 + 2ax + 10 - 3a > 0$$

$$f(x) > 0, \forall x \in R$$

$$\Rightarrow$$
 $b^2 - 4ac < 0$

$$\Rightarrow$$
 $4a^2 - 4(10 - 3a) < 0$

$$\Rightarrow$$
 4a² - 40 + 12a < 0

$$\Rightarrow a^2 + 3a - 10 < 0$$

$$\Rightarrow a^2 + 5a - 2a - 10 < 0$$

$$\Rightarrow \quad a(a+5)-2(a+5)<0$$

$$\Rightarrow (a+5)(a-2)<0$$

36. (a) Probability of choosing fair coin
$$=\frac{1}{3}$$

Probability of choosing two headed coin = $\frac{1}{2}$

Probability of choosing weighted coin = $\frac{1}{2}$

::Required probability

$$= \frac{1}{3} \times \frac{1}{2} + \frac{1}{3} \times 1 + \frac{1}{3} \times \frac{1}{3}$$
$$= \frac{1}{6} + \frac{1}{3} + \frac{1}{9} = \frac{3+6+2}{18} = \frac{11}{18}$$

37. (a) We have, |a| = 3

Let α , β and γ be the angles between the given vector and coordinate axes respectively.

Let
$$\mathbf{a} = \hat{\mathbf{i}} + \hat{\mathbf{j}} + \hat{\mathbf{k}}$$

$$\therefore \qquad \cos \alpha = \cos \beta = \cos \gamma = \frac{1}{\sqrt{3}}$$

$$\therefore \qquad \alpha = \beta = \gamma = \cos^{-1} \left(\frac{1}{\sqrt{3}}\right)$$

38. (a) If
$$f(x) = \begin{cases} \frac{\sin(-1)}{-1} = & \sin, \text{ when } -1 \le x < 0 \\ 0 \Rightarrow & \text{when } 0 \le x < 1 \end{cases}$$

$$\Rightarrow \lim_{(x \to 0^+)} f(x) = \sin 1 \text{ and } \lim_{(x \to 0^+)} f(x) = 0$$

So, limit does not exist.

39. (a) We have,

and

$$tan A - tan B = x \qquad ...(i)$$

$$cot B - cot A = y \qquad ...(ii)$$

Then,
$$\cot(A-B) = \frac{\cot A \cot B + 1}{\cot B - \cot A}$$

$$= \frac{1 + \cot A \cot B}{v} \qquad \dots (iii)$$

From Eq. (i)

$$\frac{1}{\cot A} - \frac{1}{\cot B} = x$$

$$\frac{\cot B - \cot A}{\cot A \cot B} = x$$

$$\cot A \cot B = \frac{y}{x}$$

From Eq. (iii),

$$\cot (A - B) = \frac{1 + \frac{y}{x}}{y} = \frac{1}{x} + \frac{1}{y}$$

40. (a) We have,

$$a = \log_{12} 18,$$

$$\Rightarrow b = \log_{24} 54$$

$$\therefore ab + 5(a - b)$$

$$= (\log_{12} 18)(\log_{24} 54) + 5[\log_{12} 18 + \log_{24} 54]$$

$$= \frac{\log_e 9 \times 2}{\log_e 4 \times 3} \cdot \frac{\log_e 9 \times 6}{\log_e 8 \times 3} + 5 \left[\frac{\log_e 9 \times 2}{\log_e 4 \times 3} - \frac{\log_e 9 \times 6}{\log_e 8 \times 3} \right]$$

Solving this, we get

$$ab + 5(a - b) = 1$$

41. (c) Let probability of guessing be A.

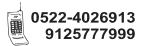
Probability guessing correct answer,

$$P(A) = \frac{1}{A}$$

Answer is not correct =
$$P(\overline{A}) = 1 - \frac{1}{4}$$

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





(Best COACHING for MCA ENTRANCE in INDIA)

NIMCET Solved Paper 2014

∴ Required probability = 1 -
$$P$$
 (no answer is correct)
= 1 - ${}^5C_0[{P(A)}^0 {P(\overline{A})}^5]$
= 1 - ${}^5C_0(\frac{1}{4})^0(\frac{3}{4})^5$
= 1 - $\frac{243}{1024}$ = 1 - 0.2370
= 0.7623

42. (d) We have equation of line,

$$/ x + m y + n z = 0$$
and
$$y = \frac{-I}{m} x + \left(\frac{-n}{m}\right) z$$
 ...(i)

We know that, if the line y = mx + c touches the ellipse

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$$

$$c^{2} = a^{2}m^{2} + b^{2}$$

$$\frac{n^{2}}{m^{2}} = a^{2}\frac{l^{2}}{m^{2}} + b^{2}$$

$$n^{2} = a^{2}l^{2} + b^{2}m^{2}$$

43. (c) We have,

$$\sin 20^{\circ} \sin 40^{\circ} \sin 80^{\circ}$$

$$= \sin 20^{\circ} \sin (60^{\circ} - 20^{\circ}) \sin (60^{\circ} + 20^{\circ})$$

$$= \sin 20^{\circ} (\sin^{2} 60^{\circ} - \sin^{2} 20^{\circ})$$

$$= \sin 20^{\circ} \left[\frac{3}{4} - \sin^{2} 20^{\circ} \right]$$

$$= \frac{1}{4} [3 \sin 20^{\circ} - \sin^{3} 20^{\circ}]$$

$$= \frac{1}{4} \sin 3 \times 20^{\circ} = \frac{1}{4} \frac{\sqrt{3}}{2} = \frac{\sqrt{3}}{8}$$

44. (b) Let two numbers be x and y, where x > 0, y > 0.

Given,
$$x + y = 9$$
 ...(i)

and $z = x - y^2$...(ii)

$$\Rightarrow z = x(9 - x)^2$$

$$= x(81 + x^2 - 18x) = x^3 - 18x^2 + 81x$$

$$\therefore \frac{dz}{dx} = 3x^2 - 36x + 81$$

$$= 3(x^2 - 12x + 27)$$

$$\therefore \frac{dz}{dx} = 0$$

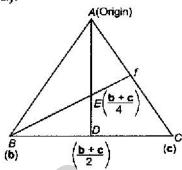
$$\Rightarrow x^2 - 9x - 3x + 27 = 0$$

$$\Rightarrow (x - 9)(x - 3) = 0$$

$$\Rightarrow x = 3, x = 9$$

$$x = 3 \quad [\because x = 9 \text{ not possible}]$$
and $y = 6$

45. (d) Let the position vector of B and C are b and c respectively.



Equation of AC

i.e.
$$r = b + \lambda \left(\frac{b+c}{4} + b\right)$$
and
$$r = 0 + \mu C$$

$$\Rightarrow 1 - \frac{3\lambda}{4} = 0 \text{ and } \frac{\lambda}{4} = \mu$$

$$\Rightarrow \lambda = \frac{4}{3} \text{ and } \mu = \frac{1}{3}$$

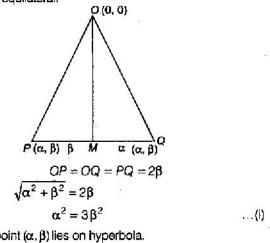
Therefore, the positive vector of F is

$$\mathbf{r} = \frac{1}{3}\mathbf{c}$$

$$AF = \frac{\mathbf{c}}{3} \implies AF = \frac{1}{3}AC$$

$$AF:AC = 1:3$$

46. (b) Let the vertex P be (α, β) , so that Q is $(\alpha, -\beta)$ such that AOPQ is equilateral.



Hence, point (α, β) lies on hyperbola.

$$\frac{\alpha^2}{a^2} - \frac{\beta^2}{b^2} = 1$$

$$\Rightarrow \frac{3\beta^2}{a^2} - \frac{\beta^2}{b^2} = 1 \qquad [from Eq. (i)]$$

$$\Rightarrow \frac{3\beta^2}{a^2} - 1 = \frac{\beta^2}{b^2} = \pm 1 + ve > 0,$$

$$\Rightarrow \frac{b^2}{a^2} > \frac{1}{a} \Rightarrow b^2 > \frac{a^2}{a^2}$$

∴ So, numbers are 3 and 6.

or



(Best COACHING for MCA ENTRANCE in I

NIMCET Solved Paper 2014

47. (a) In ΔABC,

$$a = 2, b = 4, ∠C = 60^{\circ}$$
∴
$$\cos C = \frac{a^{2} + b^{2} - c^{2}}{2ab}$$
∴
$$\cos 60^{\circ} = \frac{4 + 16 - c^{2}}{2 \times 2 \times 4}$$

$$\Rightarrow \qquad \frac{1}{2} = \frac{20 - c^2}{16}$$

$$\Rightarrow c^2 = 12$$

$$\Rightarrow c = 2\sqrt{3}$$

Now,
$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

$$\Rightarrow \frac{\sin A}{2} = \frac{\sin C}{2}$$

$$\Rightarrow \frac{\sin A}{2} = \frac{\sin 60^{\circ}}{2\sqrt{3}}$$

$$\Rightarrow \qquad \sin A = \frac{1}{2}$$

Now
$$\angle A + \angle B + \angle C = 180^{\circ}$$

$$\Rightarrow$$
 30° + $\angle B$ + 60° = 180°

and
$$\angle B = 90^{\circ}$$

48. (b) Let
$$l = \int \frac{x e^x}{\sqrt{1 + e^x}} dx$$

Put
$$1+e^x=t^2$$

 $\Rightarrow e^x = 2t = at$

$$x = \log(t^2 - 1)$$

$$I = 2 \int \log \frac{(t^2 - 1)}{t} t \, dt = 2 \int \log(t^2 - 1) \, dt$$

$$= 2 \left[t \log(t^2 - 1) - 2 \int \frac{t^2}{t^2 - 1} \, dt \right]$$

$$= 2 \left[t \log(t^2 - 1) - 2 t \int \left(1 + \frac{1}{t^2 - 1} \right) \, dt \right]$$

$$= 2 \left[t \log(t^2 - 1) - 2 t - \log\left(\frac{t - 1}{t + 1}\right) \right] + C$$

$$= 2x\sqrt{1 + e^x} - 4\sqrt{1 + e^x} - 2\log\left(\frac{\sqrt{1 + e^x} - 1}{\sqrt{1 + e^x} + 1}\right) + C$$

$$= (2x - 4)\sqrt{1 + e^{x}} - 2\log\left(\frac{\sqrt{1 + e^{x}} - 1}{\sqrt{1 + e^{x}} + 1}\right) + C$$

Hence,
$$f(x) = 2x - 4$$

49. (a) Given, combined average of class is 50. Let number of boys in class be x and number of girls in class be y By combined average formula,

$$50 = \frac{52 \times x + 42 \times y}{x + y}$$

$$\Rightarrow 50x + 50y = 52x + 42y$$

$$\Rightarrow$$
 8y = 2x

$$\Rightarrow \frac{x}{y} = \frac{4}{1}$$

$$\Rightarrow \frac{x}{x+y} = \frac{4}{5}$$

Hence, ratio of boys to total number of students is $\frac{4}{\epsilon}$

and percentage =
$$\frac{4}{5} \times 100 = 80\%$$
.

50. (a) Between 4000 to 5000, choose unit digit in 4 ways (0, 2, 6, 8) = 4.

Choose tenth place of remaining 8 numbers = 8 (because 2) even number out of 10 numbers are already taken)

Choose hundred place by remaining 7 numbers = 7 ways Total number ways between 4000 to 5000

Similarly, for 5000 to 6000,

Unit digit is chosen in 5 ways

$$(0, 2, 6, 8, 4) = 5$$

Tenth digit is chosen in 8 ways = 8

Thousandth digit is chosen by remaining 7 numbers = 7 **Wavs**

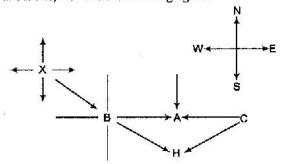
Total number ways = $5 \times 8 \times 7 = 280$

Similarly, for 6000 to 7000

Total number ways $4 \times 8 \times 7 = 224$

Hence, total number ways for 4000 to 7000

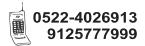
51. (b) On the basis of the given information regarding directions, we have the following figure.



It is clear from the figure that H is at the farthest South and C is at the farthest East.

So, option (b) is correct.





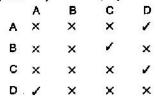
(Best COACHING for MCA ENTRANCE in INDIA)

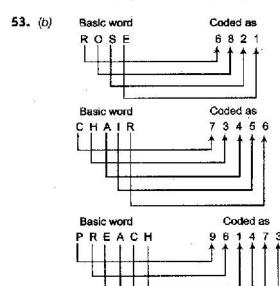
NIMCET Solved Paper 2014

52. (c) It is very clear from the given information that C does not work with A, therefore C should be the partner with B as they can form pairs i.e. AD and CB.

So, according to the question,

Number of possibility for each player is





Therefore, the coding for word SEARCH will be 214673 Hence, option (b) is the correct choice.

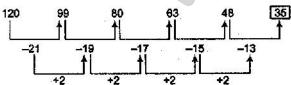
Solutions [Q. Nos. 54 to 56]

A table is drawn on the basis of the given information.

Town	A	В	c	D	E	Ì
Team	T	R	Р	Q	s	7

- 54. (d) Team Q is from town D, according to the above table.
- 55. (c) Team P is from the town C, according to the above table.
- 56. (d) Team T is from the town A, according to the above table.
- 57. (a) Given series 120, 99, 80, 63, 48, ...

We have the following pattern



Hence, the number that comes next in the series is 35.

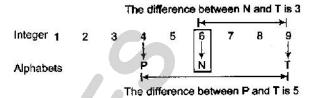
58. (b) Total number of students when there were 24 students in each of 13 sections = $13 \times 24 = 312$ Total number of students when three new section were added with 21 students in each of 16 sections

Number of newly admitted students = 336 - 312 = 24

 $=21\times16=336$

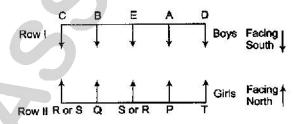
59. (b) On the basis of the given information, the Integer assigned to N is 6.

This is explained below



Solutions [Q. Nos. 60 to 63]

On the basis of the given information, we have the standing arrangement as shown below.



- 60. (a) C and D are standing at the ends of the row.
- 61. (d) None of the option is correct.
- 62. (a) E is standing to the immediate right of A.
- **63.** (c) Q is facing B.
- **64.** (b) Let the present age of daughter = x yrand present age of mother = y yrAccording to the question,

$$x + y = 63$$
(i)

4yr back,

..

Daughter's age =
$$(x - 4)$$
yr
Mother's age = $(y - 4)$ yr
 $4(x - 4) = y - 4$

From Eqs. (i) and (ii), we get

$$x + y = 63$$

$$\Rightarrow 4x - y = 12$$

$$\therefore x = 15 \text{ yr}$$

$$\therefore x + y = 63$$

$$\Rightarrow 15 + y = 63$$

$$\Rightarrow v = 48 \text{ yr}$$

Hence, present age of mother = 48 yr.





(Best COACHING for MCA ENTRANCE in INDIA)

NIMCET Solved Paper 2014

65. (a) Time gained in 5 min = 10 s

So, time gained in 60 min =
$$\frac{10}{5} \times 60$$

= 120 s = 2 min

So, time gained in 1 h = 2 min

Time gained in $10 \text{ h} = 2 \times 10 \text{ min} = 20 \text{ min}$

Now,

Present time = 7:20 pm

So, correct time is 7 pm

66. (a) Let the present age of Rohit = x yr

and present age of Rohit's father = x + 3x = 4x yr

After 8 vr.

Rohit's age = x + 8yr

Robit's father's age = 4x + 8 yr

According to the question,

$$\Rightarrow \frac{5}{2}(x+8) = 4x + 8$$

$$\Rightarrow \frac{5x}{2} + 20 = 4x + 8$$

...

i.e. Rohit age after 8 yr = 16 yr

Rohit's father age after 8 yr = 40 yr

Now, after further 8 yr

Rohit age = 16 + 8 = 24 yr

Rohit's father = 40 + 8 = 48 yr

Hence. Rohit's father age will be two times of Rohit age.

67. (c) 1, 2, 3, 6, 11, 20, 37, 68...

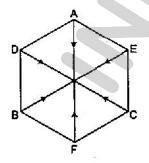
The above series is showing the following pattern. We have to the sum the three numbers

i.e.
$$1+2+3=6$$
$$2+3+6=11$$
$$3+6+11=20$$
$$11+20+37=68$$
$$20+37+68=125$$

So, the number that comes next in the series, is 125.

Solutions [Q. Nos. 68 to 69]

On the basis of the given information, sitting arrangement is shown below:



- 68. (a) D and E are sitting next to A.
- 69. (c) E is sitting opposite to B.
- **70.** (d) Arithmetic mean of 2^{10} and $2^{20} = \frac{2^{10} + 2^{20}}{2^{10}}$ $=\frac{2(2^9+2^{19})}{2}=2^9+2^{19}$
- 71. (b) Let the weights of the five boxes, in increasing order be A. B. C. D and E.

A < B < C < D < E. i.e.

Each of the boxes can be paired up with another box in a total of 4 ways.

If we sum up all the given weights, we get

$$\Rightarrow$$
 A+B+C+D+E=289 kg ...(i)

Now, 121 kg is the sum of the weight of the boxes D and E and 110 is the sum of the weights of the boxes A and B.

and
$$D + E = 121 \text{ kg}$$

$$A + B + D + E = 231$$
kg

...(ii)

Subtracting Eq. (ii) from Eq. (i), we get

$$C = 289 - 231 = 58 \text{ kg}$$

Now, 120 kg is the sum of the weights of the boxes C and E

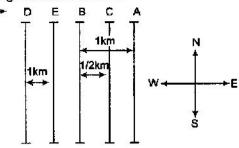
i.e.
$$C + E = 120 \text{ kg}$$

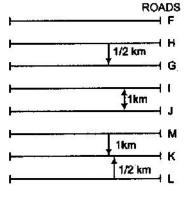
 $\Rightarrow E = (120 - 58) \text{ kg} = 62 \text{ kg}$

Solutions [Q. Nos. 72 to 76]

On the basis of the given information in the question, we have the figure as shown below.

ROADS--









(Best COACHING for MCA ENTRANCE in INDIA)

NIMCET Solved Paper 2014

- 72. (d) M is 1.5 km North of L.
- 73. (a) "D is 2 km West of A" is not true.
- 74. (c) The distance between A and D lies between $\frac{1}{2}$ and 2 km.
- 75. (c) If I is 1/2 km North of (b), there is possibility of coinciding of the roads J and L.
- 76. (d) J and K would be 1/2 km apart.
- 77. (c) Let the students in three classes be 2x, 3x and 5x.

On increasing the students in each classes by 20, the students will be 2x + 20, 3x + 20 and 5x + 20.

Now, according to the question,

$$2x + 20: 3x + 20: 5x + 20:: 4:5:7$$

$$\therefore \frac{2x + 20}{3x + 20} = \frac{4}{5}$$

$$10x + 100 = 12x + 80$$

 $x = 10$

Total number of students before increase were

$$= 2x + 3x + 5x = 10x = 10(10) = 100$$

78. (c) Let the ages of Ajith, Babita, Chetu, Das are A, B, C, D yr. Age of Ajith is three times that of Babita i.e. A = 3B

Chetu is half the age of Das i.e. C =

Babita is older than Chetu i.e. B > C.

Statement I Chetu is 10 yr old. This statement is necessary to find the age of Ajith.

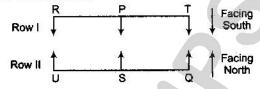
Statement II This statement is again necessary to find the age of Ajith.

Hence, both statements I and II are necessary to estimate the age of Ajith.

Solutions (Q. Nos. 79 to 82)

On the basis of the information given for the questions, we have the following standing arrangement of six friends

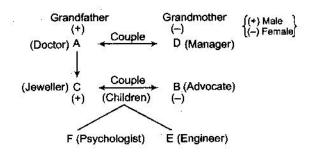
i.e. P. Q. R. S. T. U.



- 79. (b) R, P and T are in the same row.
- 80. (b) U is standing to the left of S.
- (c) S is facing P.
- 82. (d) T is standing opposite to Q, i.e. TQ are facing each other.

Solutions (Q. Nos. 83 to 87)

On the basis of the given information, we have the following relationship diagram.



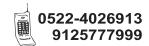
- 83. (d) Profession of A is doctor. But it is not given in any of the
- 84. (b) Profession of E is engineer.
- 85. (c) A is grandfather of E.
- 86. (d) This cannot be determined.
- 87. (a) AD and CB are the two couples in the family.

Solutions [Q. Nos. 88 to 90]

Based on the given information, following table is drawn.

Executive	CEO	President	Vice -President	Secretary	Treasure
Executive names	Cheryl	Bert	Enid	Alice	David
Cars	Red	Blue	Green	Yellow	Purple
Order	1	2	3	4	5

- 88. (d) Alice is the secretary.
- 89. (c) Cheryl is the CEO:
- 90. (a) Vice-President's car is of green colour.
- 91. (b) In the context of the sentence 'storm' fits the blank appropriately.
- 92. (c) 'Pirate' means a person who attacks ships at sea in order to steal from them.
- 93. (a) Other three options are clearly in appropriate.
- 94. (a) Anthropology means 'the study of ancient societies'.
- 95. (c) Clearly stated in the passage.
- 96. (d) Easy choice from among the given options.
- 97. (a) Why was such a letter written by your brother?
- 98. (d) The correct sequence is RPSQ.
- 99. (c) A lot of students were dejected.
- 100. (b) The appropriate question tag is 'doesn't she?'
- 101. (c) 'Prudent' means 'sensible and careful when you make judgements'.
- 102. (c) Many a is used.





(Best COACHING for MCA ENTRANCE in INDIA)

NIMCET Solved Paper 2014

- 103. (a) Stupendous means 'extremely large or impressive'.
- 104. (a) Easy choice from among the given options.
- 105. (b) A person who insists on something is called stickler.
- 106. (c) 'Should be' fits the blank appropriately.
- 107. (c) Keep to side/path/road is used.
- 108. (b) 'Amicable' means polite or friendly.
- 109. (b) 'Rude' means 'impolite'.
- 110. (b) 'Native' is the correct match.
- 111. (a) The hexadecimal operation A10 + B21

A10 = 101000010000

B21=101100100001

Now, we add these two binary numbers

101000010000

+ 101100100001

1010100110001

Decimal number of 1010100110001 is 5425.

112. (c) The given number is 0011010110011100.

Now, change this number into one's complement as,

Now add 1 to the one's complement to obtain two's complement representation of the given number as

1100101001100011

113. (b) Multiplication of two binary numbers, which are given as

$$\begin{array}{r}
 111_2 \times 101_2 \\
 111 \\
 101 \\
 \hline
 111 \\
 000 \times \\
 \hline
 111 \times \times \\
 100011
 \end{array}$$

So, the output is $(100011)_2$.

114. (*d*) The given number is -93.

The equivalent binary representation of 93 in byte is 01011001.

Now change it into 1's complement.

01011001 1111111 10100110

Therefore, the one's complement representation of -93 is 10100110

Now found 2's complement.

10100110 +1

10100111

This value does not match with other options. So, the answer is none of these.

115. (a)

116. (b) The Boolean expression $X \cdot (X + Y)$

$$X \cdot (X + Y)$$
$$= (X \cdot X) + (X \cdot Y)$$

[using distributive law]

$$=X+(X\cdot Y)$$

 $[:: X \cdot X = X]$

[using absorption law]

So, the expression $X \cdot (X + Y)$ is equal to X.

117. (b) A nibble is equal to half byte

As we know, 1 byte = 2 nibble

118. (a)

119. (c) The result of multiplication of the numbers (10101), and (11101)2.

$$(10101)_2 = (21)_{10}$$

$$(11101)_2 = (29)_{10}$$

Multiplication of $(21)_{10} \times (29)_{10} = (609)_{10}$

(609)₁₀ is equivalent to hexadecimal

 $=(261)_{16}$

So, the output of the $(10101)_2 \times (11101)_2$ in hexadecimal = 261

120. (b) (531.53125)_{to}

512 256 128 64 32 16 8 42 1 531 binary number is $= 1 \ 0 \ 0 \ 0 \ 1 \ 0 \ 0 \ 1$

.53125 binary number is = .10011

 $(53153125)_{10} = (100001001110011)$