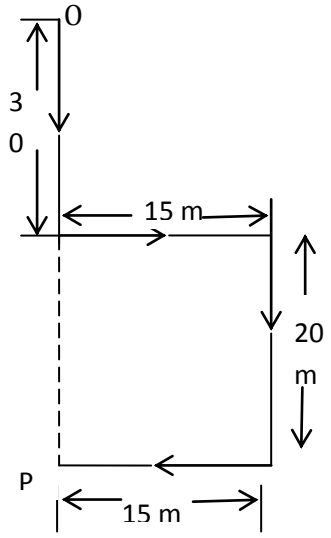
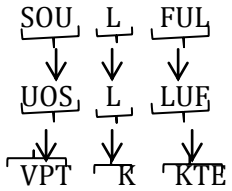
1. 42 ÷7 – 8 + 6 x 4 = 6 – 8 + 24 = 22
2. 

   OP = 30 m + 20m = 50 m
3. Move six letters forward respectively .
4. Number : 5 9 1 6 4 8 2 3
   In descending order : 9 8 6 5 4 3 2 1
5. PQRST/ABCDE/PQRS/ABCDE/PQRS/ABCD/PQR
6. How can you go = ja da ka pa ….(i)
   Can you come here = na ka sa ja ..(ii)
   Come and go = ra pa sa …. (iii)
   From (i) and (ii),
   Can you = ja ka … (v)
   From (ii) and (iii)
   Come = sa .(vi)
   Using (v) and (iv) in (ii), we get
   Here = na
7. T R I B U N A L
8.

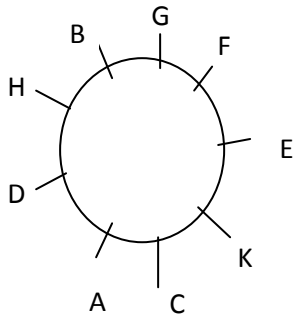
D	O	W	N	A	M	E
5	@	9	#	6	%	3

   :. MODE = % @ 5 3
9. GLUE
10. THR I VES
    RHT I SEV
    SIU H RDU
    Similarly



11. All branches are nets + Some nets are dresses
    = A + I = No conclusion.
    Hence I and IV do not follow.
    Some trains are cars + All cars are branches
    = I + A = I
    = Some trains are branches-> conversion
    -> Some branches are trains (I).
    Hence III follows.
    Some trains are branches + All branches are nets = I + A = I
    = Some trains are nets -> conversion
    ->Some nets are trains (I).
    Hence II follows.
12. Some kites are desks + All desks are jungles
    = I + A = I
    = Some kites are jungles ->Conversion
    ->Some jungles are kites (I).
    Hence IV follows.
    Some pencils are kites + Some kites are jungles
    = I + I = No conclusion.
    Hence I and II do not follow.
    All desks are jungle + All jungles are mountains = A +A = A
    = All desks are mountains -> conversion
    ->some mountains are desks (I)
    Hence III follow
13. Some boards are lanes + All lanes are roads
    = I + A = I
    =Some board are roads -> conversion
    ->Some roads are boards (I).
    Hence I follows.
    Some cilps are boards + Some boards are lanes
    = I + I = Non conclusion.
    Hence II and IV do not follow.
    All papers are clips + Some clips are boards
    = A + I – no conclusion.
    Here III does not follow.
14. A + I and I + both result in no conclusion.
15. Some rings are doors + All door are windows
    = I + A = I
    = Some rings are windows -> conversion
    ->Some windows are rings (I).
    Hence II follows.
    All stones are hammers + No hammer is a ring

=A + E = E
= No stone is a ring -> conversion
->No ring is a stone €.
Hence IV does not follow.
No stone in ring + Some rings are windows
= E + I = O*
=Some windows are not stones.
However, either I or III follows as they form a complementary I-E pair.



21. R < K ...(i)
K > D ...(ii)
D = V ...(iii)
V ≤ M ...(iv)
From (i) and (ii), R and D cant be compared
Hence I and II do not follow.
From (iii) and (iv),
D = V ≤ M or D ≤ M.
Hence either III (D =M) or IV (M > D) follows.

22. F > N ... (i)
N ≥ W ...(ii)
W ≤ Y ...(iii)
Y < T ...(iv)
From (i) and (ii),
F > N ≥ W or F > W.
Hence I follows.
From (ii) and (iii), N and Y can't be compared. Hence II and III do not follow.
From (iii) and (iv),
W ≤ Y < T or T > W.
Hence IV follows.

23. B ≥ T ... (i)
T < R ...(ii)
R > F ...(iii)
F = K .... (iv)
From (i) and (ii), B and R can't be compared.
Hence I does not follow.
From (iii) and (iv), R > F = K or R > K.
Hence III follows.

24. J = F ... (i)
F ≤ N ....(ii)

$N > H$ ...(iii)

$H \geq G$ .... (iv)

From (iii) and (iv),

$N > H \geq G$ or $G < N$

Hence I follows.

From (i) and (ii),

$J = F \leq N$ or $N \geq J$.

Hence II follows.

From I and II, G and J can't be compared

Hence IV does not follow.

25. $D \leq T$ .. (i)

$T = R$ ..(ii)

$R \geq M$ ..(iii)

$M > K$ ..(iv)

From (i) and (ii),

$D \leq T = R$ or $D \leq R$.

Hence either I ($R = D$) or II ($R > D$) follow.

From (ii) and (iii),

$T + R \geq M$ or $M \leq T$.

Hence (iv) and IV,

$K < M \leq T$ or $K < T$.

Hence III follows.

26. (A) is strong as it addresses the problem of food scarcity.

(B) is strong as environment is a very important issue.

(C) is weak because "the caution" part is neither convincing nor mature.

27. (A) is weak because it is not true: note the use of 'only'.

(B) is strong as the country's power needs can't be ignored.

(C) is weak as it is argument by example.

28. (A) is strong as space constraints do play a crucial role.

(B) is false : the buyers also benefit in terms of cost and greenery.

(C) is strong as mere buildings do not make sense. Without proper infrastructure, they become worse than rural houses to live in

29. (A) is not true for all roads : work is often done in phases and meets completion.

(B) is weak : such use of electricity can't be termed "unnecessary".

(C) is strong as it shows concern for the commuters.

30. Only (B) is strong.

(A) and (C) are weak as "all" can't be punished for the fault of "many".

31. All these assumptions are in directions contrary to what the statement says.

32. Whenever such a decision is taken, the assume tions are that it would be welcome and allowed to implement.

33. The urging of the government makes sense only when (A) and (B) are implicit.

34. The decision to auction assumes response to it. Hence (A) is not implicit.

Unless the private entities are capable, the decision would make no sense. Hence (B is implicit. (C) is implicit as without financial benefit, private entities would not turn up for the auction.

35. (A) must be implicit to make the request meaningful.

The government is out of picture here

Hence (B) is not implicit.

(C) is not implicit as the case may be only of delay, not of cancellation of flight.

36. From the fact that prudent banks are likely to weather the crisis by taking into account these factors.
37. This is clearly a one off case.
38. This is what skews the risk-reward equation.
39. This is probably what misprices risks.
40. Policy errors are also liable and there is a chance that some of these are political.

Q.No	Candiate	(i)	(ii)	(ii)/a	(iv)	(v)	(vi)	(vii)/b
41	Kesav	√	√	(√)	√	√	√	√
42	Arindam	√	_	√	X	√	√	√
43	Sohan	_	√	√	√	√	√	√
44	Neha	√	√	√	√	√	√	(√)
45	Neeta	√	√	√	√	√	√	√

46. In each step the middle of the side elements shifts one side CW.
Upper-right shift to centre-> lower left -> upper right
47. In each step, elements shift one step CW while the elements going to the top position is . replaced by a new one.
48. In the first step, upper and the lower set of elements interchange places. Remaining two remain static. In the next step. Elements shift one step upwards diagonally.
49. In the first step, corner elements shift one side ACW while central element is replaced by a new one.
In the next step, end elements interchange places while middle element interchange with the centre element.

50. In the first step, elements rotate in their own places.
In the next step elements shift from upper left to middle left-> middle right -> upper left while they rotate in a set order.
51. Number of L, type products sold
Store F = 48
Store E = 40
:. Required percentage $=\frac{48}{40} \times 100$
$= 120$
52. Required ratio = (61+54) : (54+48)
= 115:102
$= 42 \times \frac{1500}{100} \times 630$
Number of females in Production department
$=\frac{10 \times 630}{100} = 63$
Number of males in Marketing department
$= \frac{22 \times 1500}{100} = 330$
Number of females in Marketing department
= (900-330-216-100-63)=191
Number of males in Marketing department
= (1500-180-185-630-330)=750
56. Required percentage = $\frac{185}{1500} \times 100 = 12$
57. Number of males in Accounts department = 175
58. Required percentage = $\left(\frac{175 \times 216}{2400}\right) \times 100 = 16.29$

59. Required percentage $\frac{63}{900}$ x 100 = 7

60. Number of females in HR and Marketing department = 330+191=521

61. Number of boys in schools R and U together

$$=\frac{(2000 \times 72.5+100 \times 82.5)}{100}$$

$$= 2275$$

Required percentage

$$=\frac{2275}{3000}x100 =75.83$$

62. Number of boys in school

$$T = \frac{1250 \times 60}{100} = 750$$

63. Required percentage = $\frac{2000}{2250}$ x 100 = 89

64. Required average

$$=\frac{1}{2}\left(\frac{2500 \times 60}{100} + \frac{3000 \times 55}{100}\right)$$

$$= \frac{1}{2} \text{ x } 3150 = 1575$$

65. Required ratio

$$= 2500 \text{ x} \frac{40}{100} : 3000\text{x} \frac{45}{100}$$

$$= 20 : 27$$

66. Total possible outcomes

= No. of ways of picking 3 marble out of 12

$= {}^{12}C_3 = \frac{12 \times 11 \times 10}{3 \times 2 \times 1} = 220$

Favourable number of case = n€

$= {}^{3}C_3 + {}^{4}C_3$

= 1+4=5

Required probability

$= \frac{n(E)}{n(S)} = \frac{5}{220} = \frac{1}{44}$

67. Total possible outcomes,

$n(S) = {}^{12}C_2 = \frac{12 \times 11}{1 \times 2} = 66$

Favourable number of cases,

$n(E) = {}^{14}C_2 = \frac{4 \times 3}{1 \times 2} = 6$

∴ Required probability

$= \frac{n(E)}{n(E)} = \frac{6}{66} = \frac{1}{11}$

68. Total possible outcomes

$=4(S) = {}^{12}C_3 = 220$

Favourable number of case = $n(E)$

= Number of ways of picking 3 marbles (none is blue) out of 7

$= 7c_3 = \frac{7 \times 6 \times 5}{1 \times 2 \times 3} = 35$

∴ Required probability $= 1 - \frac{35}{220} = \frac{37}{44}$

69. Number of combinations

$= {}^{4}c_4 \text{ x } {}^{6}c_1 + {}^{3}c_3 \text{x} {}^{4}c_2$

= 1 x 6 + 1 x 6 = 12

70. Number of combinations

= selecting 2 trainees out of 3 and selecting 3 Research Associates out of 6

$= {}^{3}c_2 \text{ x } {}^{6}c_3$

$=3 \text{ x} \frac{6 \times 5 \times 4}{1 \times 2 \times 3} = 60$

71. Required ratio

$= \frac{3}{4} \text{ x } 2.27 : \frac{3}{10} \text{ x } 1.25$

$= 1.7025 : 0.375 = 227 : 50$

72. Required percentage $= \frac{1.08}{3.14} \text{ x } 100 \approx 34$

73. Total number of candidates appearing from all the cities together

$= (1.25+3.14+1.08+2.27+1.35+2.73)$ lakhs

$= 12.32$ lakhs

Number of candidates passing from city F

$= \frac{7}{12} \text{ x } 2.73 = 1.5925$ lakh

Required percentage

$= \frac{1.5925}{12.32} \text{ x } 100 = 12.93$

74. Number of failures :

City A : $\frac{3}{10} \text{ x } 1025$ lakhs $= 0.375$ lakh

City B : $\frac{3}{8} \text{ x } 3.14$ lakhs $= 1.1775$ lakh

City C : $\frac{5}{9} \text{ x} 1.08$ lakhs $= 0.6$ lakh

City D : $\frac{3}{4} \text{ x } 2.27$ lakhs $= 1.7025$ lakh

City E : $\frac{2}{5} \text{ x } 1.85$ lakhs $= 0.74$ lakh

City F : $\frac{5}{12} \text{ x } 2.73$ lakhs $= 0.455$ lakh

75. Number of passed students from City E

$= \left(\frac{3}{5} \text{ x } 1.85\right)$lakhs $= 111000$

76. Let expenditure of companies A and B in 2004 be Rs. 100 each.

$\therefore \quad I_{A04} = 100 \text{ x} \frac{135}{100} = 135$

Similarly, $I_{B04} = 140$

$\frac{IA04}{IB04} = \frac{135}{140} = 27 : 28$

77. $E_{A2007} = 1.5\left(\frac{100}{40}\right) = 3.75$ lakh

78. Required average per cent profit earned by Company B

$= \frac{40 \text{ x } 45 \text{ x } 40 \text{x } 35 \text{ x } 30 \text{ x } 45}{6}$

$= 39\frac{1}{6}\%$

79. Let income of each company be Rs x in the years 2008.

Then $E_A = x \text{ x} \frac{100}{100+50} = \frac{2}{3}x$

$E_B = x \text{ x} \frac{100}{100+30} = \frac{10}{13}x$

$\frac{Ea}{Eb} = \frac{2}{\frac{3}{\frac{10}{13}x}} x = 13 : 15$

80. Since no amount (of income, expense or profit) is given in the question, we can't find the ratio of profits.

81. Required average marks in English

$= \frac{67+59+66+71+63}{5}$

$= 65.2$

82. Varun's total marks

$=63+76\ x\frac{125}{100}+88\ x\frac{150}{100}+75\ x\ \frac{68}{100}+\frac{75x50}{1000}$

$= 63+95+132+51+36=377$

:. Required percentage $=\frac{377}{500}\ x\ 100 = 75.4$

83. Marks obtained by Veena and Shreya together in Maths

$=74\ x\frac{15}{100}+80\ x\frac{150}{100}$

$=111+120 = 231$

Marks obtained by Rahul in Maths

$=70\ x\frac{150}{100} = 105$

:. Required ratio = 231 : 105 = 11 : 5

84. Required percentage marks to qualify in Science

$=\frac{95}{125}\ x\ 100 = 76$

Clearly, three students obtained the required marks.

85. Marks obtained by Sohan in all subjects

$= 66 + 90\ x\frac{125}{100}+84\ x\frac{150}{100}+80\ x\frac{76}{100}+76\ x\frac{50}{100}$

$= 66 + 112.5+126+60+38+=402.5$

86. Average number of people using mobile service

$M = 10^3\ x\frac{(5+10+25+20+2515)}{6}$

$=\frac{110}{6}\ x\ 10^3 = 16666\frac{2}{3}$

87. Required per cent $=\frac{55}{60}\ x\ 100 = 91.67$

88. Required per cent $=\frac{10}{55}\ x\ 100 = 18$

89. Required ratio = 15 : 10 = 3 : 2

90. Required number of people

$= (25+15)\ x\ 10^3$

$= 40\ x\ 10^3 = 40{,}000$

91. Required average distance covered by truck S

$=\frac{325+314+312+278+292+274}{6}$km

$= 299\frac{1}{6}$ km

92. Required time $=\frac{240}{19.2} = 12.5$ hour

93. Speed of truck on Friday

$=\frac{302}{8} = 37.75$ kmph

94. Total distance travelled by all the trucks on Saturday

$= (292+284+260+274+280+242)$ km

$=1632$ km

95. Required ratio $=\frac{308}{x} : \frac{318}{x} = 154 : 159$

x is equal speed of the two trucks

96. Required ratio

$=\frac{25780x\ 12}{100} : 7390\ x\frac{11}{100}$

$= 3094 : 813$

97. Required percentage $=\frac{24}{16}\ x\ 100 = 150$

98. Required difference = (11-7)% of 7390

$=\frac{4x7390}{100} = 296$

99. Such difference in

Science :

$25780 \text{ x} \frac{25}{100} - 7390 \text{ x} \frac{32}{100}$

= 7218 – 2365 =4853

Engineering :

$25780 \text{ x} \frac{16}{100} - 7390 \text{ x} \frac{11}{100}$

= 4124-813=3311

Commerce : $25780 \text{ x} \frac{18}{100} - 7390 \text{ x} \frac{16}{100}$

= 4640 – 1182

= 3458

Management :

$25780 \text{ x} \frac{12}{100} - 7390 \text{ x} \frac{20}{100}$

= 3093-1478 = 1615

100. Required number of candidates

= 23% of 7390

$= 23 \text{ x} \frac{7390}{100} = 1700$