

- 34.(2) The percentage of production of company Suzuki to production of company Mahindra
 For year 2009 = $\frac{70}{50} \times 100$
 For year 2010 = $\frac{80}{70} \times 100$
 For year 2011 = $\frac{90}{70} \times 100$
 For year 2012 = $\frac{80}{70} \times 100$
 For year 2013 = $\frac{70}{100} \times 100$
 It is clear that for year 2009 it will be maximum
- 35.(1) Required Ratio = $\frac{50+100+80}{70+80+100} = \frac{230}{250} = \frac{23}{25}$
- 36.(2) The total no. of visitors in the age group less than or equal to 20 years visited in the park –
 $= 120000 \times \frac{65}{100} = 78000$
 So, no. of female visitors = $\frac{60}{100} \times 78000 = 46800$
 No. of male visitors less than 20 years of age = $78000 - 46800 = 31200$
 Total female visitors = $120000 \times \frac{7}{12} = 70000$
 Total male visitors = $120,000 - 70,000 = 50,000$
 No. of females of age more than 20 years = $70,000 - 46800 = 23200$
 No. of males of age more than 20 years = $50000 - 31200 = 18800$
 Required difference = $23200 - 18800 = 4400$
- 37.(5) No. of visitors in Nov 2012 = 65000
 Total no. of visitors in all the given months = 441000
 Therefore, required % = $\frac{65}{441} \times 100 = 14.74\%$
- 38.(1) No. of female visitors to the park in the month of October 2012 = $\frac{2}{5} \times 75 = 30$
 No. of female visitors to the park in the month of December 2012 = $\frac{4}{7} \times 126 = 72$
 Ratio = $30 : 72 = 5 : 12$
- 39.(1) Total no. of male visitors in Sep - 2012 and Oct 2012 together
 $= \frac{4}{11} \times 55000 + \frac{3}{5} \times 75000 = 65000$
 Total no. of male visitors in Nov - 2012 and Dec 2012 together
 $= \frac{5}{8} \times 65000 + \frac{3}{7} \times 126000 = 94625$
 Required difference = $94625 - 65000 = 29625$
- 40.(3) Required no. of visitors
 $= \frac{120000 \times 65}{100} + \frac{126000 \times 60}{100}$
 $= 75600 + 78000 = 153600$
 $average = \frac{153600}{2} = 76800$
- 41.(1) $x = 7, 3.75; y = 2, 2.142$
 Therefore $x > y$.
- 42.(4) $x = -8, -5; y = -5, -2$
 Therefore $x \leq y$.
- 43.(4) $x = 13; y = 13, 14$
 Therefore $x \leq y$.
- 44.(3) $x = -1.909; y = +7.0227$;
 Therefore $x < y$.
- 45.(3) $x = 13$ (approx.); $y = 14, 15$
 Therefore $x < y$.
- 46.(5) Bob's present age = x
 Abby's present age = $(x + 8)$ years
 $\frac{x+4}{x+12} = \frac{4}{5}$
 $x = 28$ years
- 47.(4) C's investment = x
 Ratio = $(17600 \times 12) : (12800 \times 12) : x \times 8$
 $= 26400 : 19200 : x$
 $\therefore 11000 = \frac{x \times 36080}{26400 + 19200 + x}$
 $x = 20,000$ Rs.
- 48.(2) Distance covered in 2 hours = $62 \times 2 = 124$ km
 Distance remaining = $(827 - 124) = 703$ km
 Required time = $\frac{703}{62+59}$
 $= \frac{703}{121}$ hour
 $= 5$ hrs 48 min
 Hence they will meet 12 : 48 pm.
- 49.(2) Let Leena had a sum of money = x Rs.
 Sum invested by her in scheme $x = \frac{5x}{11}$
 Sum invested by her in scheme $y = \frac{6x}{11}$
 $\therefore \frac{5x}{11} \times \frac{6 \times 18}{100} - \frac{6x}{11} \left[\left(1 + \frac{20}{100}\right)^2 - 1 \right] = 1518$
 $x = 6050$ Rs.
 \therefore Required amount = $\frac{6050 \times 5}{11}$
 $= 2750$ Rs.
- 50.(1) Let radius = r cm
 Height = h cm
 $\frac{2\pi rh + 2\pi r^2}{2\pi rh} = \frac{5}{4}$
 $\frac{2\pi rh}{h+r} = \frac{5}{4}$
 $r = \frac{h}{4}$ (i)
 $2\pi rh = 1232$
 $h^2 = \frac{1232 \times 7 \times 4}{2 \times 22} = 784$
 $h = 28$ cm
- 51.(5) Probability of first ball to be red
 $= \frac{5c_1}{15c_1} = \frac{5}{15} = \frac{1}{3}$
 Probability of second ball to be yellow
 $= \frac{7c_1}{14c_1} = \frac{7}{14} = \frac{1}{2}$
 \therefore Required probability = $\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$
- 52.(2) Let the new average age of the class = x years
 $\therefore 48 \times (x - 2.5) - 60 = (48 - 12 + 8) \times x$
 $4x = 180$
 $x = 45$ years
- 53.(4) Let the total number of candidates be = x
 Number of candidates passed in English
 $= x \times 60\% = \frac{x \times 60}{100} = 0.6x$
 Number of candidates passed in mathematics = $0.7x$
 Number of candidates failed in both subjects = $0.2x$
 Number of candidates passed in at least one subject = $x - 0.2x = 0.8x$
 According to questions.
 $0.6x + 0.7x - 2500 = 0.8x$
 $1.3x - 0.8x = 2500$
 $0.5x = 2500, x = \frac{2500}{0.5} = 5000$

54.(1) Remaining work after 3 days = $1 - \frac{3}{18}$
 $= \frac{5}{6}$

\therefore Required no of days = $\frac{\frac{5}{6}}{\frac{1}{25}}$
 $= 12$ days

55.(2) Loss/gain % = $(10 - 10 - \frac{10 \times 10}{100})\%$
 $= -1\%$
 (- sign indicate that there is a loss of 1%)

56.(3) Total unsold toys in 2012
 $= \frac{20}{100} \times 100 + \frac{15}{100} \times 141 = 41.15$ thousand

57.(5) Required difference = $744 - 720 = 24$ thousand

58.(1) Required percentage
 $= \frac{159-78}{78} \times 100 \approx 104\%$

59.(3) Average number of toys in P
 $= \frac{744}{6} = 124$ thousand

Average number of toys in Q = $\frac{720}{6} = 120$

\therefore Required percentage
 $= \frac{124-120}{120} \times 100 = 3\frac{1}{3}\%$

60.(4) Cost incurred in manufacturing
 $= 109000 \times 50 = \text{Rs. } 54,50,000$

S.P of 90% products
 $= \frac{90}{100} \times 109000 \times 80 = \text{Rs. } 78,48,000$

\therefore Required profit % = $\frac{23,98,000}{54,50,000} \times 100 = 44\%$

61.(2) $107 \times 79 - (54)^2 = \sqrt{?} + 5476$
 $8453 - 2916 - 5476 = \sqrt{?}$
 $\sqrt{?} = 61$
 $? = 3721$

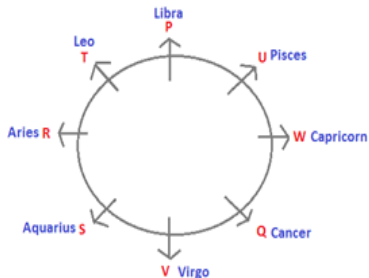
62.(3) $24 \times 8 + 21 \times 8 + 8 \times 8 + 7 \times 8 - 98$
 $= 8(60) - 98$
 $= 480 - 98$
 $= 382$

63.(1) $1021585 - 18611 - 5883 = 997091.$

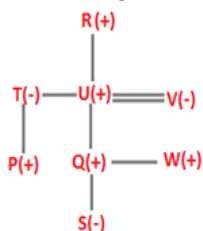
64.(2) $\frac{3}{11} + \frac{39}{44} + \frac{5}{22} = \frac{12+39+10}{44} = \frac{61}{44} = 1\frac{17}{44}$

65.(3) $533.61 + 777.92 - 1147.69 = 163.84$

66-70.



Tree Form (Blood-Relation)-



66.(1)
 68.(5)
 70.(3)

67.(3)
 69.(1)

71.(3) I. $R \geq W = H$ (False)

II. $R \geq W = H$ (False)

72.(1) I. $D = K < T$ (True)

II. $K < T > M$ (False)

73.(2) I. $F \leq N \geq R$ (False)

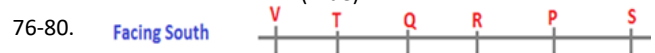
II. $B < F \leq N$ (True)

74.(4) I. $K \leq M > W$ (False)

II. $H > W < M$ (False)

75.(5) I. $D < M = T$ (True)

II. $R \geq T = M$ (True)



76.(2)

78.(4)

81-85.

77.(1)

79.(2)

80.(5)

DAY	PERSON	COLOUR
Monday	B	Green
Tuesday	D	Blue
Wednesday	A	Grey
Thursday	G	Black
Friday	C	Orange
Saturday	E	Pink
Sunday	F	White

81.(2)

83.(1)

86.(4)

82.(4)

84.(3)

85.(2)



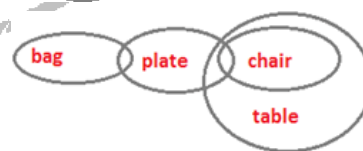
87.(3)



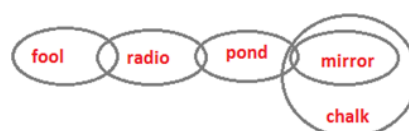
88.(2)



89.(5)



90.(4)



91.(2)

X & Y have to be together, so X or Y cannot be the only girl member. H cannot be teamed with K so only one boy either H or K can be in the team. Hence boy J should be in the team and J cannot go with U. so U cannot be the only girl member. I and V have to be together and H and W have to be together so G, I, K, J, L should be in boy team and the only girl is V.

92.(1)

U is in the team so J & G cannot be in team so the I, L and either H or K should be in boy team. H and W have to be together and X & Y have to be together so the team is I, L, H, U, V, W.

- 93.(2) if I is in the team so V should also be there and the other girl can be U or W Because I cannot go with X. If the other girl is W so the team is G, H, I, J, V, W but if the other girl is U, the team cannot be defined.
- 94.(2) K is in the team so H and W cannot be in the team. For completing four boys in the team, G & J have to be there. so U cannot be in team. X and Y have to be together so X & Y are in the team and boys are K, G, J, and L.
- 95.(3) For completing four girls in the team, X & Y should be there. so I and V cannot be in the team. Hence the other girl members are U & W. so the boys team are H and L.

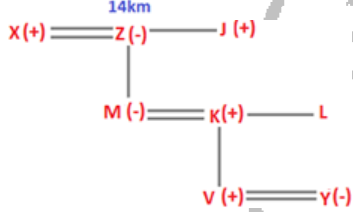
96.(4)



97.(2)



98-100.



98.(5)

99.(2)

100.(2)

