1.	Ans: [a] Solution: (22 x 3 + 17 x 2)/5 = 100/5 = 20.
2.	Ans: [c] Solution: (18*8)-(15*6)/2=$\frac{54}{2}$ =27
3.	Ans: [d] Solution: sum of first 97 natural numbers=$\frac{n(n+1)}{2}$ =$97 * \frac{98}{2}$ Average=(97*98)/(2*97)=49
4	Ans: [a] Solution: avg of 3 numb is 135 (x + y + z) / 3 = 135 diff. b/w 2 values is 25 so x = y - 25 z = y + 25 [(y-25) + y + (y+25)]/3 = 135 [y-25+y+y+25] / 3 = 135 3y/3=135 y=135 so x = 110 ; y = 135 ; z = 160 The lowest number is 110
5	Ans: [d] Solution: (2*30*40)/70=240/7=34.2
6	Ans: [c] Solution: (50*25-20*40)/30=x (1250-800)/30=450/30=15
7	Ans: [d] Solution: (3000-32-12+23+11)/100=2990/100=29.90
8	Ans: [a] Solution: let sum of 10 members age be x New sum of ages=x-a-b(where a and b is the age of new and old member respectively Avg=(x-a-b)/10 4 yrs ago Sum of ages of members=x-40 Avg=(x-40)/10 (x-40)/10=(x-a+b)/10 b-a=40
9	Ans: [a] Solution: {(52*45)-(48*5)+(54*5)}/45=52.66

10	Ans: [] Solution: Let the original number be ab i.e., (10a + b). After interchanging the digits, the new number becomes ba i.e., (10b + a). The question states that the average of 10 numbers has become 3.6 less than the original average. Therefore, the sum of the original 10 numbers will be 10*3.6 more than the sum of the 10 numbers with the digits interchanged. i.e., 10a + b = 10b + a + 36, 9a - 9b = 36, a - b = 4
11	Ans: [] Solution: a+b+c+d = 25*4 = 100 d+e+f = 35*3 = 105 a+b+c+d+e+f = 30*6 = 180 So the fourth value d = 100 + 105 - 180 = 25.
12	Ans: [] Solution: {(24*42)-88}/23=40
13	Ans: [] Solution: The weight of the new man would be 19 x 3.5 kgs more than the weight of the man he replaces. New man's weight = 79 + 19 x 3.5 = 145.5 kgs.
14	Ans: [] Solution: 22*45 = 990 the avg of 1st 10 mem is 10*55= 550 the avg of the last 11 mem is 11*40 = 440 Sum is = 990 11 candidate marks are Total avg - (avg of 1st 10 mem + avg of last 11 mem) i.e 990-990 = 0
15	Ans: [] Solution: Total of Ist 10 students = 12.5 × 10 = 125 Total of other 20 students = 13.1 × 20 = 262 Total = 387 Average = 387/30 = 12.9 years
16	Ans: [] Solution: total age of all the 6 family members=22*6=132 7 years ago the youngest member was not there and the other members were 7 years younger than now.so the total age of a family of 5 members will be 132-(7*6)=90.therefore the average age of 5 members will be 90/5=18
17.	Ans: 75 Solution:The average weight of A,B and C = 84Kg The total weight of A, B and C = 84 x 3 = 252Kg. The average weight of A, B , C and D = 80 kg

	The total weight of A, B, C and D = 80 x 4 = 320 kg The weight of D = 320 – 252 = 68 kg The weight of Q = 68 + 3 = 71 kg The average weight of B, C ,D and E = 79 kg The total weight of B, C, D and E = 79 x 4 = 316 kg The total weight of A,B, C and D – the total weight of B,C,D and E = 320 – 316 = 4 kg A – E = 4 A = 4 + E A = 4 + 71 A = 75 Kg
18	Ans: 36 Solution: tues + wed + thurs)/3=37 tues + wed + thurs=111...(1) (wed + thurs + fri)/3=38 (wed + thurs + fri) =114...(2) Given friday is 39. then, (2) - (1) Fri - Tues = 3 So 39 - Tues = 3 Tuesday =36
19	Ans: 105 Solution: there are three workers a,b and c their average salary is a+b+c/3 = 95 a+b+c=285 a=115, b=65 c=285-115-65=105 the ans is 105
20	Ans: 89 Solution: Total score of 15 boys is 85X15= 2245 Total score of 10 girls is 97X10 = 970 Average =(2245+970)/ 25 = 89 Approx
21	Ans: 57.25 Solution: w/15 = 63.25 => W= 15X63.25 = 948.75 (W+N)/16= 62.875 => W+N = 1006 solving above two weight of new one is 1006- 948.75 = 57.25
22	Ans: 148 Solution: Average of numbers = Sum/6 Average = 888/6 = 148
23	Ans: 850 Solution: Sum of 4 investment/4 =x(average) (Sumof 4 investment +920)/5 = x+14 solvinf above two equations 4X+920=5x+7 x=850
24	Ans: 40 Solution: Sum of term/N=18 (Sum+100)/N+1 = 20 solving two 18N+100= 20N+20 2N=80 or N=40

25	Ans: 49 Solution: Average of 1st n natural number is given by = ([n*(n+1)]/2)/n Average of 1st 97 natural number is given by = {([97*(97+1)]/2)/97} = 49
26	Ans: 4000 Solution: Let P, Q and R represent their respective monthly incomes. Then, we have: P + Q = (5050 x 2) = 10100 .... (i) Q + R = (6250 x 2) = 12500 .... (ii) P + R = (5200 x 2) = 10400 .... (iii) Adding (i), (ii) and (iii), we get: 2(P + Q + R) = 33000 or P + Q + R = 16500 .... (iv) Subtracting (ii) from (iv), we get P = 4000. P's monthly income = Rs. 4000
27	Ans: 2.8 Solution: average weight is =2.5 total weight = 12X2.5 = 30 since lightest weight not more than 1 and heaviest not more than 6 so when we divide 30 with both values we will get answer less than 2.5 only so 2.8 cannot be the answer
28	Ans: 420 Let the original average expenditure be Rs.xx then, $42(x-1)-35x=42$42(x−1)−35x=42 $\Rightarrow 7x=84$⇒7x=84 $\Rightarrow x=12$⇒x=12 Therefore original expenditure $=Rs.(35\times 12)$=Rs.(35×12) =Rs. 420
29	Ans: [] Solution:
30	Ans: 33.5 Solution: sum/n =32 => sum =32n (3/4)n+4 + (1/4)-6/ 2 =33.5

31	Ans: 8 Solution: (63*4 +77*Y)/ 4+Y = 70 y=4 approx so subject should be 4+4 =8
32	Ans [b] Total food available = 35 * 10 If 50 person joins So required = (35*10)/50 = 7 days
33	Ans [b] Total runs scored by the player in 40 innings = 40 × 50 Total runs scored by the player in 38 innings after excluding two innings = 38 × 48 Sum of the scores of the excluded innings = 40 × 50 - 38 × 48 = 2000 - 1824 = 176 Given that the scores of the excluded innings differ by 172. Hence let's take the highest score as x + 172 and lowest score as x Now x + 172 + x = 176 => 2x = 4 => x =4/2 = 2 Highest score = x + 172 = 2 + 172 = 174
34	Ans [b] Required average = Old average - Sold average = (250) - (10) = 240
35	Ans [a] Required average = 14 yrs 6 months + 6 months = 15 yrs
36	Ans [b] since, average=(sum of n no.s)/(total no) therefore, (sum of first 10 no.s)/10 ==(sum of last 20 no)/20 hence. (sum of last 20 no.s) = 2*(sum of first 10 no.s)
37	**Ans: b** **Solution:** Total age of the family members = 6 x 22 = 132 yrs Total age 7 years ago = 132 – 6 x 7 = 90 yrs So the average = 90/6 = 18 yrs
38	**Ans: b** **Solution:** Let the number of females be X So as per question; 15 x 8 + 6 x X = (8+X) x 10.8 ⇨ X = 7
39	**Ans: b** **Solution: weight of the new person = weight of replaced person – decrease in average x number of persons** ⇨ **Wt. of new person = 150 – 3 x 5 = 135 kg**

40	**Ans: b** **Solution:** Let the weight of teacher be X So 24 x 36 + X = 25 x 37 ⇨ X = 61 kg