## Solutions

1. Ans. C
2. Conference on Hospitality was held in Hyderabad on Friday.
3. Only one conference was held between conference on hospitality and Finance.
4. The conference held on Monday was held in Delhi.
5. Conference on Management was held immediately after HR but immediately before Banking.
6. Only one Conference was held between conferences on Banking and the conference held in Mumbai.
7. The conference on HR was not held in Mumbai.
8. Conference in Pune was held immediately before conference in Indore.
9. Conference on Management was not held in Indore.
10. Conference on Real Estate was not held on

Monday. Conference in Chennai was not held after conference in Mumbai.

| Day | Conference | City |
| :--- | :--- | :--- |
| Monday | Marketing | Delhi |
| Tuesday | Hr | Chennai |
| Wednesday | Management | Pune |
| Thursday | Banking | Indore |
| Friday | Hospitality | Hyderabad |
| Saturday | Real state | Mumbai |
| Sunday | Finance | Bhopal |

2. Ans. E.
3. Conference on Hospitality was held in Hyderabad on Friday.
4. Only one conference was held between conference on hospitality and Finance.
5. The conference held on Monday was held in Delhi.
6. Conference on Management was held immediately after HR but immediately before Banking.
7. Only one Conference was held between conferences on Banking and the conference held in Mumbai.
8. The conference on HR was not held in Mumbai. 7. Conference in Pune was held immediately before conference in Indore.
9. Conference on Management was not held in Indore.
10. Conference on Real Estate was not held on Monday. Conference in Chennai was not held after conference in Mumbai.

| Day | Conference | City |
| :--- | :--- | :--- |
| Monday | Marketing | Delhi |
| Tuesday | Hr | Chennai |
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4. Conference on Hospitality was held in Hyderabad on Friday.
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10. Conference in Pune was held immediately before conference in Indore.
11. Conference on Management was not held in Indore.
12. Conference on Real Estate was not held on Monday. Conference in Chennai was not held after conference in Mumbai.

| Day | Conference | City |
| :--- | :--- | :--- |
| Monday | Marketing | Delhi |
| Tuesday | Hr | Chennai |
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4. Ans. B.
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9. Only one Conference was held between conferences on Banking and the conference held in Mumbai.
10. The conference on HR was not held in Mumbai.
11. Conference in Pune was held immediately before conference in Indore.
12. Conference on Management was not held in Indore.
13. Conference on Real Estate was not held on

Monday. Conference in Chennai was not held after conference in Mumbai.

| Day | Conference | City |
| :--- | :--- | :--- |
| Monday | Marketing | Delhi |
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| Wednesday | Management | Pune |
| Thursday | Banking | Indore |
| Friday | Hospitality | Hyderabad |
| Saturday | Real state | Mumbai |
| Sunday | Finance | Bhopal |

5. Ans. D.
6. Conference on Hospitality was held in Hyderabad on Friday.
7. Only one conference was held between conference on hospitality and Finance.
8. The conference held on Monday was held in Delhi.
9. Conference on Management was held immediately after HR but immediately before Banking.
10. Only one Conference was held between conferences on Banking and the conference held in Mumbai.
11. The conference on HR was not held in Mumbai.
12. Conference in Pune was held immediately before conference in Indore.
13. Conference on Management was not held in Indore.
14. Conference on Real Estate was not held on Monday. Conference in Chennai was not held after conference in Mumbai.

| Day | Conference | City |
| :--- | :--- | :--- |
| Monday | Marketing | Delhi |
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6. Ans. C.
$19^{\text {th }}$ from the right is $W$, and $7^{\text {th }}$ to the right of $W$ is Z

Hence option C is correct
7. Ans. B.

In all others Ist character $+3=$ second character and
First character $-2=$ third character
Hence option B is correct
8. Ans. E.
@ D F, \# R N, © W P and \$ H U
Hence option E is correct
9. Ans. C.

F 3 \# and B 7 \$
Hence option C is correct
10. Ans. A.

8 @ D


Similarly for \# N 1, W $\delta$ J, $5 * 6$ and 7 H U Hence option A is correct
11. Ans. B.

From the given conditions, we can conclude:

$\begin{array}{lllllll}R & S & P & T & X & Q & W\end{array}$

After arranging in alphabetical order,


Hence, only Q's position will remain unchanged.
12. Ans. A.

From the given conditions, we can conclude:

- Facing North


## $\begin{array}{lllllll}R & S & P & T & X & Q & W\end{array}$

Hence 4 people sit to the right of $P$.
13. Ans. E.

From the given conditions, we can conclude:


Only $W$ is sitting on the extreme ends of the row. Hence, W does not belong to group formed by rest of the other people.
14. Ans. D.

From the given conditions, we can conclude:
O-O-O-O-O Facing North
$\begin{array}{lllllll}R & S & P & T & X & Q & W\end{array}$
Hence $R$ and $P$ are the immediate neighbours of $S$.
15. Ans. B.

From the given conditions, we can conclude:


## $\begin{array}{lllllll}R & S & P & T & X & Q & W\end{array}$

Position can be determined as $4-2=2^{\text {nd }}$ from right end.
Hence $Q$ is the person who sits second to the right of the fourth person from the right end of the line.
16. Ans. E.
$\mathrm{G}=\mathrm{D} \leq \mathrm{C}=\mathrm{B} \leq \mathrm{A}$
$F=E>D>H>I$
$\mathrm{G} \leq \mathrm{A}$ (True)
F > I (True)
17. Ans. B.
$M=G \geq D \geq F$
I. $N<F$ (There is no relation between $N$ and $F$.)
II. $M \geq F$ (True)
18. Ans. A.
$\mathrm{W}>\mathrm{E}=\mathrm{D}>\mathrm{J}=\mathrm{Q}$
I. $\mathrm{W}>\mathrm{Q}$ (True)
II. $\mathrm{K}>\mathrm{C}$ (Not true)
19. Ans. A.

A $>\mathrm{B}>\mathrm{G}>\mathrm{E}>\mathrm{F}$
So, conclusion I follows $A>F$
So, conclusion II does not follows as there is no relation between $B$ and $D$
Only conclusion I follows
20. Ans. A.
$Z \leq X<O=R \leq E \leq C=Q$
$\mathrm{Q}>\mathrm{Z}$ (True)
$Z=Q$ (False)
Only I follows.
21. Ans. E.

1. D sits fourth to left of $P$. $P$ sits at one of the extreme ends of the line.
2. E sits second to left of $R$. $R$ is not an immediate neighbor of $D$. Neither $R$ nor $F$ sits at the extreme end of the line.
3. H sits to the immediate left of Q .
4. G faces south direction.
5. F faces opposite direction to $G$.
6. Both the immediate neighbours of $D$ face North.
7. Both the immediate neighbors of $F$ face

North. Immediate neighbours of $G$ face opposite directions

| South | South | South | North | North | North | North | North |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| P | R | G | E | D | F | H | Q |

22. Ans. C.
23. D sits fourth to left of $P$. $P$ sits at one of the extreme ends of the line.
24. $E$ sits second to left of $R$. $R$ is not an immediate neighbor of $D$. Neither $R$ nor $F$ sits at the extreme end of the line.
25. H sits to the immediate left of Q .
26. G faces south direction.
27. $F$ faces opposite direction to $G$.
28. Both the immediate neighbours of $D$ face North.
29. Both the immediate neighbors of $F$ face

North. Immediate neighbours of $G$ face opposite directions

| South | South | South | North | North | North | North | North |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| P | R | G | E | D | F | H | Q |

23. Ans. C.
24. D sits fourth to left of $P$. $P$ sits at one of the extreme ends of the line.
25. E sits second to left of $R$. $R$ is not an immediate neighbor of $D$. Neither $R$ nor $F$ sits at the extreme end of the line.
26. H sits to the immediate left of Q .
27. G faces south direction.
28. $F$ faces opposite direction to $G$.
29. Both the immediate neighbours of $D$ face North.
30. Both the immediate neighbors of $F$ face

North. Immediate neighbours of $G$ face opposite directions

| South | South | South | North | North | North | North | North |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| P | R | G | E | D | F | H | Q |

24. Ans. B.
25. D sits fourth to left of $P$. $P$ sits at one of the extreme ends of the line.
26. $E$ sits second to left of $R$. $R$ is not an immediate neighbor of $D$. Neither $R$ nor $F$ sits at the extreme end of the line.
27. H sits to the immediate left of Q .
28. G faces south direction.
29. $F$ faces opposite direction to $G$.
30. Both the immediate neighbours of $D$ face North.
31. Both the immediate neighbors of $F$ face

North. Immediate neighbours of G face opposite directions

| South | South | South | North | North | North | North | North |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| P | R | G | E | D | F | H | Q |

25. Ans. A.
26. D sits fourth to left of $P$. $P$ sits at one of the extreme ends of the line.
27. $E$ sits second to left of $R$. $R$ is not an immediate neighbor of $D$. Neither $R$ nor $F$ sits at the extreme end of the line.
28. H sits to the immediate left of Q .
29. G faces south direction.
30. $F$ faces opposite direction to $G$.
31. Both the immediate neighbours of $D$ face North.
32. Both the immediate neighbors of $F$ face

North. Immediate neighbours of $G$ face opposite directions

| South | South | South | North | North | North | North | North |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| P | R | G | E | D | F | H | Q |

26. Ans. E.
$428 \rightarrow 427$
$682 \rightarrow 681$
$391 \rightarrow 392$
$745 \rightarrow 746$
$534 \rightarrow 533$
Required difference $\rightarrow 427-392=35$
27. Ans. A.
$428 \rightarrow 248$
$391 \rightarrow 931$
$745 \rightarrow 475$
$682 \rightarrow 862$
$534 \rightarrow 354$
Required difference $\rightarrow 931-862=69$
28. Ans. D.
$428 \rightarrow 418$
$391 \rightarrow 381$
$745 \rightarrow 735$
$682 \rightarrow 672$
$534 \rightarrow 524$
Number divisible by 3
$\frac{381}{3}=127 ; \frac{735}{3}=245 ; \frac{672}{3}=224$
29. Ans. C.
$745>682>534>428>391$
Required sum $=4+2+8=14$
30. Ans. B.

Lower number = 391
9
$-=3$
3
31. Ans. E.
I. Jason > (Shane and Joseph)
II. Joseph > Shaun

So, from both statements, Jason is oldest among all.
So, data in both statements I and II together are necessary to answer the question.
32. Ans. D.
I. I happy today $=$ ke ne que ... (i)

Today happy day $=$ kejoi ne ... (ii)
From (i) and (ii), the code of 'happy' = ke or ne II. I play = que pa

So, from both statements, the code of happy cannot exactly determined.
So, the data even in both statements I and II together are not sufficient to answer the question.
33. Ans. B.

Color of white snow is 'white'.
From II 'white' is called 'orange'
So, the white snow is 'orange'
So, data in statement II alone are sufficient to answer the question.
34. Ans. E.

From I and II: $\mathrm{D}>\mathrm{N}>\mathrm{M}>\mathrm{P}>\mathrm{K}$.
35. Ans. D.

From I, we have: $\mathrm{R}>\mathrm{Q}, \mathrm{R}>\mathrm{T}, \mathrm{S}>\mathrm{R}$ i.e. $\mathrm{S}>\mathrm{R}>$ $\mathrm{Q}>\mathrm{T}$ or $\mathrm{S}>\mathrm{R}>\mathrm{T}>\mathrm{Q}$.
From II, $S$ is not the heaviest. So, $P$ is the heaviest. Thus, we have: $\mathrm{P}>\mathrm{S}>\mathrm{R}>\mathrm{Q}>\mathrm{T}$ or $\mathrm{P}>\mathrm{S}>\mathrm{R}>$ $\mathrm{T}>\mathrm{Q}$.
Hence, either $T$ or $Q$ is the lightest.
36. Ans. C.

Q is sister of R's grandmother's only son. Q must be S's daughter. Since $N$ and $P$ are not blood relatives and $O$ is the sister in law of $P$ so $Q$ must be P's wife and $N$ must be O's husband. M must be Q's daughter and since $S$ has only one granddaughter so R must be N's Son.

37. Ans. D.

Q is sister of R 's grandmother's only son. Q must be S's daughter. Since $N$ and $P$ are not blood relatives and $O$ is the sister in law of $P$ so $Q$ must be P's wife and $N$ must be $\mathrm{O}^{\prime}$ s husband. M must be Q's daughter and since $S$ has only one granddaughter so R must be N's Son.

38. Ans. B.


N is at 25 m to the north-west direction of K .
39. Ans. B.

40. Ans. B.

41. Ans. C.

Let the speed of stream be $\times \mathrm{km} / \mathrm{hr}$ Then,
Speed of upstream $=x \times 600 / 100=18$
$\Rightarrow x=3 \mathrm{~km} / \mathrm{hr}$
Speed of boat in still water $=18+3=21 \mathrm{~km} / \mathrm{hr}$
Distance covered in 3 hours in downstream $=(21+$
3) $\times 3=72 \mathrm{~km}$
42. Ans. A.
$(A+B)(A-B)=252$
$\Rightarrow 42 \times(A-B)=252[A+B=42$ given $]$
$\Rightarrow(A-B)=6 \ldots$ (i)
And $A+B=42 \ldots$ (ii)
Solve (i) and (ii), we get
$B=18$
43. Ans. D.

Let the time taken by $A$ and $B$ be $5 x$ days
and $3 x$ days respectively.
$\Rightarrow 5 x=40$ days
$\Rightarrow x=8$ days
B's time $=3 \times 8=24$ days
Time taken by both together to complete the work $=(40 * 24) /(40+24)=15$ days
44. Ans. B.

Speed of train $=72 \mathrm{~km} / \mathrm{hr}=30 \mathrm{~m} / \mathrm{s}$
Length of train $=18 \times 20=360 \mathrm{~m}$
Length of $($ train + platform $)=20 \times 33=660 \mathrm{~m}$
$\therefore$ length of platform $=660 \mathrm{~m}-360 \mathrm{~m}=300 \mathrm{~m}$
45. Ans. E.
radius $=66 * 7 /(2 * 22)=21 / 2$
Side of square $=21 / 4$
Area of square $=(21 / 4)^{\wedge} 2=441 / 16=28$ sq. cm.
(approx.)
46. Ans. D.

Let total employees in company be 100x
ATQ, $(25 / 100) * 100 X=90$
$\Rightarrow$ Total employees in company $=100 \times=$
360 Employees working in HR department $=$
$(2 / 9) \times 360=80$
Employees working in Sales department $=$
$(125 / 100) \times 80=100$ Remaining employees $=360$
$-90-80-100=90$
Employees working in Security department $=$ $(4 / 9) \times 90=40$
Employees working in Housing department $=$ $(5 / 9) \times 90=50$

| Sales | Finance | HR | Security | Housing | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 100 | 90 | 80 | 40 | 50 | 360 |

$\{(80-40) / 40\}^{*} 100=100 \%$
47. Ans. C.

Let total employees in company be 100x
ATQ, $(25 / 100) * 100 X=90$
$\Rightarrow$ Total employees in company $=100 \mathrm{X}=$
360 Employees working in HR department $=$
$(2 / 9) \times 360=80$
Employees working in Sales department $=$
$(125 / 100) \times 80=100$ Remaining employees $=360$
$-90-80-100=90$
Employees working in Security department $=$ $(4 / 9) \times 90=40$
Employees working in Housing department $=$ $(5 / 9) \times 90=50$

| Sales | Finance | HR | Security | Housing | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 100 | 90 | 80 | 40 | 50 | 360 |

$(100+90+50) / 3=240 / 3=80$
48. Ans. A.

Let total employees in company be 100x
ATQ, $(25 / 100) * 100 X=90$
$\Rightarrow$ Total employees in company $=100 \mathrm{X}=$ 360 Employees working in HR department $=$ $(2 / 9) \times 360=80$
Employees working in Sales department $=$ $(125 / 100) \times 80=100$ Remaining employees $=360$ $-90-80-100=90$
Employees working in Security department $=$ $(4 / 9) \times 90=40$
Employees working in Housing department $=$ (5/9) $\times 90=50$

| Sales | Finance | HR | Security | Housing | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 100 | 90 | 80 | 40 | 50 | 360 |

$(50-40)=10$
49. Ans. E.

Let total employees in company be 100x
ATQ, $(25 / 100) * 100 X=90$
$\Rightarrow$ Total employees in company $=100 \mathrm{X}=$ 360 Employees working in HR department $=$ (2/9) $\times 360=80$
Employees working in Sales department $=$
$(125 / 100) \times 80=100$ Remaining employees $=360$
$-90-80-100=90$
Employees working in Security department =
(4/9) $\times 90=40$
Employees working in Housing department = (5/9)× $90=50$

| Sales | Finance | HR | Security | Housing | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 100 | 90 | 80 | 40 | 50 | 360 |

$40-(40 / 100) * 40=24$
50. Ans. A.

Let total employees in company be 100x
ATQ, $(25 / 100) * 100 X=90$
$\Rightarrow$ Total employees in company $=100 \mathrm{X}=$
360 Employees working in HR department $=$
(2/9) $\times 360=80$
Employees working in Sales department $=$
$(125 / 100) \times 80=100$ Remaining employees $=360$
$-90-80-100=90$
Employees working in Security department =
(4/9) $\times 90=40$
Employees working in Housing department $=$
(5/9) $90=50$

| Sales | Finance | HR | Security | Housing | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 100 | 90 | 80 | 40 | 50 | 360 |

$80 \times(2 / 5)=32$
51. Ans. C.

Marks scored by Sandy in English and Maths together $=60+60=120$
Marks scored by Aditya and Neeraj in English together $=75+85=160$
Required \% $=120 / 160 \times 100=75 \%$
52. Ans. A.

Required ratio $=(60+75+55+60) /(80$
$+60+90+65)=5: 6$
53. Ans. D.

Total marks scored by Paul $=65+60+80+65=$ 270
Total marks scored by Neeraj $=85+55+95+85$
$=320$
Required difference $=320-270=50$
54. Ans. E.

Required average
$=(75+75+60) / 3=70$
55. Ans. B.

Required $\%=(60+60+65+60) / 4=61.25 \%$
56. Ans. B.

MP of article $=(1020 / 80) \times 100=$ Rs. 1275
Selling price $=1275-199=$ Rs. 1076
57. Ans. C.

Sum of present age of $A, B$ and $C$
$=98-4 \times 3$
$=98-12$
$=86 \mathrm{yr}$.
Present age of $C=86-(32+23)=31 \mathrm{yr}$.
Age of $C$ four years hence $=31+4=35 \mathrm{yr}$.
58. Ans. B.

| Profit share ratio of | A | B |
| :---: | :---: | :---: |
|  | $12000 \times x$ | $16000 \times 9$ |
|  | x | $:$ |
|  |  | 12 |

ATQ,
$\times \quad 9000$
$\overline{12}=\overline{12000}$
$\Rightarrow \mathrm{x}=9$ months.
59. Ans. E.

Let, total quantity $=100 \ell$
Quantity of milk $=60 \ell$
And quantity of water $=40 \ell$
ATQ,
$\frac{40}{100}=\frac{60}{100+x}$
$2(100+x)=5 \times 60$
$200+2 x=300$
$2 x=100$
$x=50 \ell$
Water added in $\%=\frac{50}{100} \times 100=50 \%$
60. Ans. E.

Let the sum be Rs. $P$.
Difference $=P(1+0.1)^{2}-P \times(1.16)$
$\Rightarrow P=$ Rs. 4500
61. Ans. D.
$(\sqrt{ } 1443) \div 19.01+328=? \times 22$
$\Rightarrow 38 / 19+328=? \times 22$
? $=(330 / 22)=15$
62. Ans. B.
$30 \%$ of $880=?+111$
$\Rightarrow(30 * 880) / 100=$ ? +111
? $=264-111=153$
63. Ans. A.
$(?)^{2}=400-256=144$
$(?)=12$
64. Ans. E.
$12+?=256$
$?=244$
65. Ans. D.
$(75 / 100)^{*} ?=324$
?= 432
66. Ans. D.

67. Ans. B.

68. Ans. D.

69. Ans. A.

70. Ans. C.

71. Ans. B.
$?^{2}=49$
?= 7
72. Ans. D.
$?=(126-108) / 4=12$
73. Ans. A.
$?=(5 / 2) *(80+120)=500$
74. Ans. C.
? $=(121+36-37)=120$
75. Ans. E.
$?=360 /(72-27)=8$
76. Ans. D.
$?=(15+21)^{(1 / 2)}=6$
77. Ans. A.
$?=128-64=64$
78. Ans. B.
? $=24+6=30$
79. Ans. E.
$?=(90+310)^{(1 / 2)}=20$
80. Ans. C.
$?=\{(18 * 8)-(36 * 3)\} / 2=18$

