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SBI PO Pre

Solution

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Reasoning Aptitude

1. **Answer: (E)**
Option (a): BET: B(2)E(5) T(27-7=20)
Option (b): GAS: G(7)A(1)S(27-8=19)
Option (c): CIO: C(3)I(9)O(27-12=15)
Option (d): DFQ: D(4)F(6)Q(27-10=17)
Option (e): EKL: E(5)K(11) L(27-15=12)
So, Option (e) is the odd one out.
2. **Answer: (D)**
Given expression: $R _ ? _ P = T \geq Q = V _ ? _ W \geq S$
On putting the symbol given in option (a) in the given expression, ($R = P = T \geq Q = V < W \geq S$) it doesn't satisfy the given condition.
On putting the symbol given in option (b) in the given expression, ($R \leq P = T \geq Q = V > W \geq S$) it doesn't satisfy the given condition.
On putting the symbol given in option (c) in the given expression, ($R \geq P = T \geq Q = V \geq W \geq S$) it doesn't satisfy the given condition.
On putting the symbol given in option (d) in the given expression, ($R = P = T \geq Q = V > W \geq S$) it satisfies the given condition.
3. **Answer: (B)**
Two persons sit between S and T, who owns Acer laptop.
The person who owns Acer laptop sits at the end of the row and faces south direction.

Case 1:

Acer						
T					S	
↓						

Case 2:

						Acer
					S	T
						↓

U sits third to the left of S and immediate right of P, who owns Lenovo laptop.

Case 1:

Acer						Lenovo		
T					S	P		U
↓					↓	↑		

Case 2:

	Lenovo							Acer
U	P			S				T
	↓			↑				↓

Q sits second to the right of V, who sits adjacent to P.

Case 1:

Acer						Lenovo		
T			Q	S	V	P		U
↓				↓	↓	↑		

Case 2:

	Lenovo							Acer
U	P		V	S	Q			T
	↓		↑	↑				↓

The person who owns Apple laptop sits immediate left of R, who owns HP laptop.

Case 1:

Acer	HP	Apple			Lenovo	
T	R	Q	S	V	P	U
↓	↓		↓	↓	↑	

Case 2:

	Lenovo				Apple	HP	Acer
U	P	V	S	Q	R	T	
	↓	↑	↑		↑		↓

Four of them are facing north direction and three of them are facing south direction.
Thus, Case 1 gets cancelled.

Case 2:

	Lenovo				Apple	HP	Acer
U	P	V	S	Q	R	T	
	↓	↑	↑		↑		↓

The persons sitting at the end of the rows face opposite directions.

	Lenovo				Apple	HP	Acer
U	P	V	S	Q	R	T	
↑	↓	↑	↑	↓	↑		↓

The person who owns Asus laptop sits second to the left of the person who owns Dell laptop.

Asus	Lenovo	Dell			Apple	HP	Acer
U	P	V	S	Q	R	T	
↑	↓	↑	↑	↓	↑		↓

Now, only MI laptop is remaining.

Asus	Lenovo	Dell	MI	Apple	HP	Acer
U	P	V	S	Q	R	T
↑	↓	↑	↑	↓	↑	↓

This is the final arrangement.
S owns MI laptop.

4. **Answer: (B)**
Two persons sit between P and Q.
5. **Answer: (D)**
U - Asus
Q - Apple
V - Dell
6. **Answer: (A)**
P, Q and T are facing south direction.
7. **Answer: (E)**
R sits third to the right of V and R owns HP laptop.
8. **Answer: (C)**
U has checked in at the hotel on the 3rd day of a month having less than 31 days.

Months (Dates)	People
May	
3 rd	
9 th	
13 th	

Table with 2 columns: Date, People. Rows: June, 3rd, 9th, 13th.

X and Y have checked in at the hotel on the same day which is a prime numbered after U.

Table with 2 columns: Months (Dates), People. Rows: May, 3rd, 9th, 13th, June, 3rd, 9th, 13th.

P has checked in at the hotel immediately before V in the same month.

Case I:

Table with 2 columns: Months (Dates), People. Rows: May, 3rd, 9th, 13th, June, 3rd, 9th, 13th.

Case II:

Table with 2 columns: Months (Dates), People. Rows: May, 3rd, 9th, 13th, June, 3rd, 9th, 13th.

Case III:

Table with 2 columns: Months (Dates), People. Rows: May, 3rd, 9th, 13th, June, 3rd, 9th, 13th.

Q has checked in on a day which is a prime numbered with P only.

Case I:

Table with 2 columns: Months (Dates), People. Rows: May, 3rd, 9th, 13th, June, 3rd, 9th, 13th.

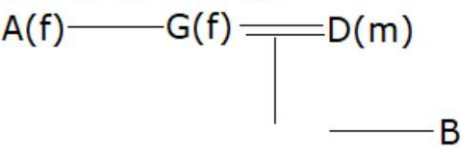
This is the final arrangement.

No one has checked in at the hotel on 13th May.

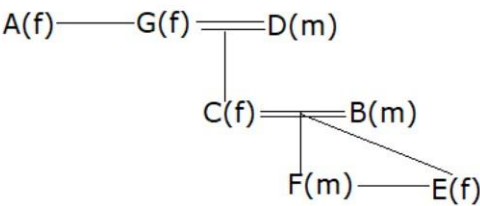
Answer: (A)

V has checked in at the hotel on 9th May.

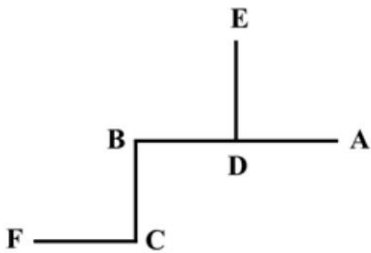
- 10. Answer: (A) Three people have checked in at the hotel in the month of June.
- 11. Answer: (D) Y has checked in at the hotel on 13th June.
- 12. Answer: (D) Equal number of people have checked in at the hotel in each month and hence the required difference is zero.
- 13. Answer: (B) There are 100 members in a golden group. Person A is 70st eldest member. It means person A is 31st youngest member in the group. Person B is the 40th youngest member. Total number of members are there between person A and person B = (40 - 31) - 1 = 8 members
- 14. Answer: (D) MOUSTACHES ST, CE and EM are 3 such pairs which has as many letters between them as in English alphabetical series.
- 15. Answer: (D) In the word 'APPRECIATIVE', the letter which is immediately followed by vowel is replaced with E. 'APPRECIATIVE': So, R, C, I, T and V are replaced with E. A vowel which is immediately followed by consonant are replaced with R. 'APPRECIATIVE'. So, A, E, A and I are replaced by R. Thus, the word will be: RPPEREEREREE So, letter 'P' is repeated twice.
- 16. Answer: (B) A, who is unmarried, is the sister of G. G is the mother-in-law of B. G has only one sibling. D is the brother-in-law of A.



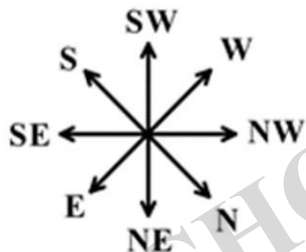
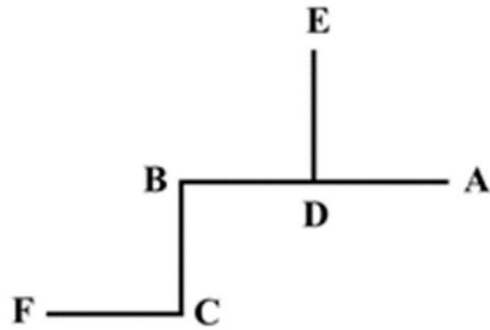
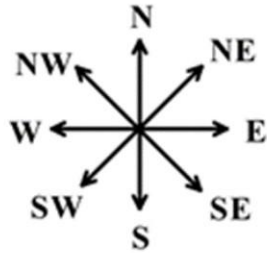
C is the daughter of D, who has only one child. F is the son of B. E is the sister of F.



- 17. Answer: (E) A is the aunt of C. G is the wife of D. In the same way, C is the wife of B.
- 18. Answer: (A) It is given that, B is to the west of D and to the north of C. C is to the east of F. D is to the south of E and is to the west of A. We get,



If the nomenclature is changed such that south-west is known as east, west is known as south-east and so on, we get,



19.

Here, A is to the north-west of B.

Answer: (B)

'Read Books Daily' is coded as 'Q1W D3F A2S' -----(1)

'Books Kept In shelf' is coded as 'F4G A2S R6T W7E' -----(2)

'Daily Clean Shelf' is coded as 'D3F T5Y R6T' -----(3)

'Clean Books Kept On Shelf' is coded as 'A2S F4G T5Y R6T X8C' -----(4)

From statements 1,2 and 4;

'Read **Books** Daily' is coded as 'Q1W D3F **A2S**' -----(1)

'**Books** Kept In shelf' is coded as 'F4G **A2S** R6T W7E' -----(2)

'Clean **Books** Kept On Shelf' is coded as '**A2S** F4G T5Y R6T X8C' -----(4)

The code for "books" = "A2S"

From statements 1 and 3;

'Read Books **Daily**' is coded as 'Q1W **D3F** A2S' -----(1)

'**Daily** Clean Shelf' is coded as '**D3F** T5Y R6T' -----(3)

The code for Daily = D3F

Thus, the code for "Read" = "Q1W"

Statement 2,3 and 4;

'Books Kept In shelf' is coded as 'F4G A2S **R6T** W7E' -----(2)

'Daily Clean **Shelf**' is coded as 'D3F T5Y **R6T**' -----(3)

'Clean Books Kept On **Shelf**' is coded as 'A2S F4G T5Y **R6T** X8C' -----(4)

The code for "Shelf" = "R6T"

From statements 2 and 4,

'Books **Kept** In shelf' is coded as '**F4G** A2S R6T W7E' -----(2)

'Clean Books **Kept** On Shelf' is coded as 'A2S **F4G** T5Y R6T X8C' -----(4)

The code for "kept" is "F4G".

The code for "In" is "W7E".

From statements 3 and 4;

'Daily **Clean** Shelf' is coded as 'D3F **T5Y** R6T' -----(3)

'**Clean** Books Kept On Shelf' is coded as 'A2S F4G **T5Y** R6T X8C' -----(4)

Thus, the code for "On" is "X8C".

Books	A2S
Daily	D3F
Read	Q1W
Shelf	R6T
Kept	F4G
In	W7E
Clean	T5Y
On	X8C

The code for "Clean" is "T5Y".

20.

Answer: (D)

The codes for "Books" is "A2S" and the code for "Daily" is "D3F".

21.

Answer: (D)

The code for "On" is "X8C" and the code for "Shelf" is "R6T".

22.

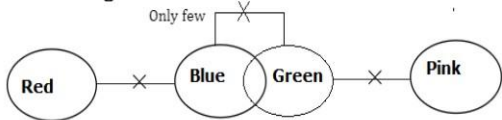
Answer: (D)

The code for "In" is "W7E".

23.

Answer: (C)

Venn diagram:



I. Some Red is Pink ---- Does not follow

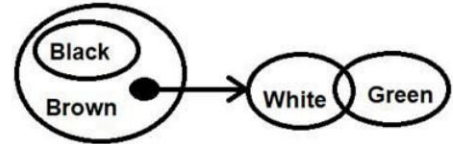
II. Some Green is Red ---- Does not follow

So, Neither Conclusion I nor II follows.

24.

Answer: (A)

Following figures can be formed:



Conclusion:

I. Some Green are not Brown: Doesn't follow (As, there is no direct relation between Green and Brown. So, no definite conclusion follows)

II. All White can be Brown: Follows (As, there is no direct relation between White and Brown. So, all possible conclusion follows)

III. Few Black are not Green is a possibility: Follows (As, there is no direct relation between Black and Green. So, all definite conclusion follows)
Only conclusions II and III follow.

25. **Answer: (E)**
For $O \leq D$, the first and second blanks can be filled with '=' or ' $\leq$ '. For second to be true, it can be filled with '<' or '=' or ' $\leq$ '. For both to be true, it can only be filled with '=' or ' $\leq$ '.

26. **Answer: (B)**
Starting point: Start with Raj and the one, who buys English book.

Clues:

- Two persons visit between Raj and the one, who buys English book.
- Lina visits immediately after the one, who buys Math book.
- Lina is not the last person to visit the shop.
- At least one person visits between Lina and Raj.

Inferences:

From clue 1, either Raj visits before or after the one, who buys English book.

Case 1: Raj visits before the one, who buys English book.

From clue 2, clue 2 and clue 4, either Lina visits immediately before the one who buys English book or Lina is the one, who buys English books.

Raj	
	English

Case 2: Raj visits after the one, who buys English book.

From clue 2, clue 2 and clue 4, Lina buys English book.

	Math
Lina	English
Raj	

Clues:

- Raj visits after Kim.
- Kim buys History book.
- The one, who buys Science book, visits immediately before the one, who buys Hindi book.
- At least two persons visit after Surya.

Inferences:

Case 1:

From clue 1, Kim visits immediately before Raj.

Also, it can now be determined that Lina visits immediately before the one, who buys English.

From clue 3, this case can be rejected as there is no space available for the one, who buys Science and Hindi book.

Thus, this case can be rejected.

Case 2:

From clue 1, clue 2 and clue 3, Kim visits immediately after Lina. Raj buys Hindi book.

From clue 4, Surya visits immediately before Lina.

The final arrangement is as follows:

Person	Subjects
Surya	Math
Lina	English

Kim	History
Ram	Science
Raj	Hindi

Kim is the second person to visit after Surya.

27. **Answer: (A)**
Raj visits immediately after Ram.
28. **Answer: (D)**
Ram buys Science book immediately after Kim.
29. **Answer: (E)**
'Raj, Hindi' and 'Lina, English' is the correct combination of Person and Book.
30. **Answer: (D)**
Four persons visit shop before Raj.

Quantitative Aptitude

31. **Answer: (A)**
Area of a circle = $\pi \times r^2$ (Where 'r' is radius)
So, area of the given circle = $(22/7) \times 21 \times 21 = 1386$
 cm^2 = area of the square
So, length of each side of the square = $\sqrt{1386}$
 $= 3\sqrt{154}$ cm
So, length of the diagonal = $3\sqrt{154} \times \sqrt{2} = 6\sqrt{77}$ cm
32. **Answer: (C)**
Let total money = Rs. 100X
So, T's share = $100X \times 35/100 = \text{Rs. } 35X$
S' and U's share = $100X - 35X = 65X$
And ratio of S' and U's share = 8: 5
And S' share = $65X \times 8/13 = \text{Rs. } 40X$
And U's share = $65X \times 5/13 = \text{Rs. } 25X$
According to the question,
 $40X - 25X = 210$
 $\Rightarrow 15X = 210$
 $\Rightarrow X = 14$
So, total amount of money = $100 \times 14 = \text{Rs. } 1400$
33. **Answer: (A)**
 $? \times 5 - 17 \times 15 = ? \times 3 + 45$
 $? \times 5 - 255 = ? \times 3 + 45$
 $? \times 2 = 300$
 $? = 300/2$
 $? = 150$
34. **Answer: (A)**
 $\sqrt{(28 \times 7)} + \sqrt{3481} = ? \times 292 \times 1/256$
 $\sqrt{196} + 59 = ? \times 292 \times 1/256$
 $14 + 59 = ? \times 292 \times 1/256$
 $73 = ? \times 292 / 256$
 $? = 73 \times 256 / 292$
 $? = 64$
35. **Answer: (A)**
From I.
 $2x^2 - 16x + 14 = 0$
 $2x^2 - 14x - 2x + 14 = 0$
 $2x(x-7) - 2(x-7) = 0$
 $x = 1$ or $x = 7$
From II.
 $3y^2 + 13y + 14 = 0$
 $3y^2 + 6y + 7y + 14 = 0$
 $(3y+7)(y+2) = 0$
 $Y = -7/3$ or $y = -2$
When $x = 1$, $y = -7/3$; $x > y$
When $x = 7$, $y = -7/3$; $x > y$
When $x = 1$, $y = -2$; $x > y$
When $x = 7$, $y = -2$; $x > y$
Hence, $x > y$.
36. **Answer: (B)**
From 'I', we have, $3x + 2y = 37$
Multiplying on both sides by 3, we get

$9x + 6y = 111$ [a]
From 'II', we have, $7x - 3y = 25$
Multiplying on both sides by 2, we get
 $14x - 6y = 50$[b]
Adding equations [a] and [b], we get
 $9x + 6y + 14y - 6y = 111 + 50$
Or, $23x = 161$
So, $x = 161 \div 23 = 7$
Substituting this value, we get
 $3x + 2y = 37$
Or, $21 + 2y = 37$
So, $2y = 37 - 21 = 16$
So, $y = 16 \div 2 = 8$
Therefore, $x < y$.

37. **Answer: (C)**

$x^2 - 19x + 90 = 0$
 $x^2 - 10x - 9x + 90 = 0$
 $x(x-10) - 9(x-10) = 0$
 $(x-10)(x-9) = 0$
 $x = 9, 10$
 $y^2 - 24y + 143 = 0$
 $y^2 - 11y - 13y + 143 = 0$
 $y(y-11) - 13(y-11) = 0$
 $(y-11)(y-13) = 0$
 $y = 11, 13$
 $9 < 11$ & $9 < 13$
 $10 < 11$ & $10 < 13$
 $\therefore x < y$

38. **Answer: (E)**

Sum of cost price of articles 'A' and 'B' = 240×2
= ₹480
Let the cost price of article 'A' = ₹Y
Then, cost price of article 'B' = ₹(480 - Y)
According to the question,
 $Y \times 1.4 + (480 - Y) \times 0.75 = 480 + 10$
Or, $1.4Y + 360 - 0.75Y = 490$
Or, $0.65Y = 130$
So, $Y = 130 \div 0.65 = 200$
So, cost price of article 'B' = $480 - 200 = ₹280$

39. **Answer: (E)**

$18.86 \times 11.93 - ? \times \sqrt{50} = 13.03^2 + 3.07$
 $19 \times 12 - ? \times \sqrt{49} \sim 13^2 + 3$
 $19 \times 12 - ? \times 7 \sim 169 + 3$
 $228 - ? \times 7 \sim 172$
 $? \times 7 \sim 228 - 172$
 $? \sim 56 \div 7$
 $? \sim 8$

40. **Answer: (A)**

$7248.07 \div 7.86 - 7.19 \times 7.91 = ? \times 50.16$
 $7248 \div 8 - 7 \times 8 \sim ? \times 50$
 $906 - 7 \times 8 \sim ? \times 50$
 $906 - 56 \sim ? \times 50$
 $? \times 50 \sim 850$
 $? \sim 850 \div 50$
 $? \sim 17$

41. **Answer: (A)**

Total 4200 people visited museums P and Q together from January to April.
Museum P:
Average number of people visited in February and March is 630 which is 30 more than the number of people visited in April.
Number of people visited in April = $630 - 30 = 600$
Number of people visited in February and March together = $2 \times 630 = 1260$
The ratio of number of people visited in February and April is 3: 5 respectively.

Number of people visited in February = $600 \times 3/5$
= 360
10 less people visited in January as compared to that in February.
Number of people visited in January = $360 - 10$
= 350
Number of people visited in March = $1260 - 360$
= 900
So, total number of people visited in museum P from January to April together = $350 + 360 + 900 + 600 = 2210$
And the total number of people visited in museum Q from January to April together = $4200 - 2210$
= 1990

Museum Q:

Number of people visited in April is 40% less than the number of people visited in February and 100 more than the number of people visited in March.
Let the number of people visited in April = n
Number of people visited in February = $n \times 100/(100 - 40) = 5n/3$
Number of people visited in March = $n - 100$
Total 1020 people visited in February and March together.
 $5n/3 + n - 100 = 1020$
 $8n/3 = 1120$
 $n = 420$
So, number of people visited in April = 420
Number of people visited in February = $5 \times 420/3$
= 700
Number of people visited in March = $420 - 100$
= 320
And the number of people visited in January = $1990 - 700 - 320 - 420 = 550$

In tabular form:

Month	Number of peoples visited museum P	Number of peoples visited museum Q
January	350	550
February	360	700
March	900	320
April	600	420

Number of people visited in museum P and Q together in January = $350 + 550 = 900$
And the number of people visited in museum Q in February = 700
Therefore, ratio = $900 : 700 = 9 : 7$

42. **Answer: (D)**

Number of people visited in museum R in March = $320 \times 5/4 = 400$
Number of people visited in museum P in March = 900
Therefore, difference = $900 - 400 = 500$

43. **Answer: (C)**

Number of males visited museum P in April = $(1 - 3/4) \times 600 = 150$
Number of males visited museum Q in April = $1/2 \times 420 = 210$
Therefore, ratio = $150 : 210 = 5 : 7$

44. **Answer: (B)**

Average number of people visited museum P and Q in February = $(360 + 700)/2 = 530$

45. **Answer: (E)**

Number of people visited museum P in April = 600
And the number of people visited museum Q in March = 320

Therefore, percentage = $((600 - 320)/320) \times 100$
= **87.5%**

46. **Answer: (E)**

The given series follows the following pattern:

$$927 - 11^2 = 806$$

$$806 - 12^2 = 662$$

$$662 - 13^2 = 493$$

$$493 - 14^2 = 297$$

$$297 - 15^2 = 72$$

47. **Answer: (B)**

Logic in the series is:

$$101 + 2^7 = 229$$

$$229 + 2^6 = 293$$

$$293 + 2^5 = 325$$

$$325 + 2^4 = 341$$

$$341 + 2^3 = 349$$

Hence, missing term = 229

48. **Answer: (C)**

Logic for the given series:

$$450 \div 0.5 = 900$$

$$900 \div 1 = 900$$

$$900 \div 1.5 = 600 \text{ (not 360)}$$

$$600 \div 2 = 300$$

$$300 \div 2.5 = 120$$

$$120 \div 3 = 40$$

Hence, wrong term = 360

49. **Answer: (A)**

Let the cost of the groceries = ₹m

Each instalment = ₹13500

$$(m - 9000) \times (1 + 4 \times 2/100) = 13500 \times (1 + 4 \times 1/100) + 13500$$

$$108(m - 9000) = 13500 \times 204$$

$$m = 25500 + 9000$$

$$m = ₹34500$$

So, cost of the groceries = ₹34500

50. **Answer: (D)**

$$110 \text{ minutes} = (110/60) = (11/6) \text{ hours}$$

$$\text{So, speed of the boat in still water} = 66 \div (11/6) = 36 \text{ km/h}$$

Let the speed of the stream = 'x' km/h

Then, upstream and downstream speeds of the boat are $(36 - x)$ km/h and $(36 + x)$ km/h, respectively

According to the question,

$$(36 - x) = (36 + x) \times 0.8$$

$$\text{Or, } 36 - x = 28.8 + 0.8x$$

$$\text{So, } x = 7.2 \div 1.8 = 4$$

$$\text{So, downstream speed of the boat} = 36 + 4 = 40 \text{ km/h}$$

$$\text{So, distance covered in 150 minutes} = (150/60) \times 40 = 100 \text{ km}$$

51. **Answer: (D)**

Let the time taken by him to travel second part of the journey = 't' hours

Time taken by him to travel first part of the journey

$$= 2t - 30/60 = (2t - 0.5) \text{ hours}$$

$$\text{Total time taken} = 725/20$$

$$t + 2t - 0.5 = 36.25$$

$$t = 12.25 \text{ hours}$$

$$\text{So, approximate speed of the boy in second part of the journey} = (725/2)/12.25 = 29.6 \text{ km/h}$$

52. **Answer: (E)**

Let the quantity of mixture in vessel B and vessel A be m and $3m/2$ respectively.

$$\text{Quantity of water in vessel A} = 3/5 \times 3m/2 = 9m/10$$

$$\text{Quantity of milk in vessel A} = 2/5 \times 3m/2 = 3m/5$$

$$\text{Quantity of water in vessel B} = 5m/6$$

$$\text{Quantity of milk in vessel B} = m/6$$

$$\text{Ratio of milk and water} = [3m/5 + m/6] : [9m/10 + 5m/6]$$

$$= [23m/30] : [52m/30]$$

$$= 23:52$$

53. **Answer: (E)**

$$\text{Ratio of profit shares of 'A' and 'B' at the end of the year} = (X + 12) : \{(X + 1000) \times 8\} = 12X : \{8X + 8000\} = 3X : (2X + 2000)$$

$$\text{So, share of 'B'} = 50000 \times \{(2X + 2000)/(5X + 2000)\}$$

Since, the variables don't cancel out, we cannot find the answer.

54. **Answer: (D)**

Let the efficiency of man and that of a boy be 'M' units/day and 'B' units/day respectively.

Time taken by 2 men and 5 boys together to complete the entire work = $9 \times 2 = 18$ days

$$\text{Then, total work} = (3M + B) \times 25 = (2M + 5B) \times 18$$

$$\text{Or, } 75M + 25B = 36M + 90B$$

$$\text{Or, } 39M = 65B$$

$$\text{So, } M:B = 65:39 = 5:3$$

$$\text{Let 'M' = '5x' and 'B' = '3x'}$$

$$\text{Then, total work} = (5x \times 3 + 3x) \times 25 = '450x' \text{ units}$$

$$80\% \text{ of the total work} = 450x \times 0.8 = '360x' \text{ units}$$

$$\text{Time taken by 1 man and 1 boy together to complete 80\% of the work} = 360x \div (5x + 3x) = (360/8)$$

$$= 45 \text{ days}$$

55. **Answer: (D)**

Let the present age of 'B' be '10x' years.

$$\text{So, present age of 'A'} = 10x \times 1.4 = '14x' \text{ years}$$

$$\text{And present age of 'C'} = \{(14x - 3)/0.72\} + 3' \text{ years}$$

$$\text{ATQ; } 10x + \{(14x - 3)/0.72\} + 3 = 43$$

$$\text{Or, } 7.2x + 14x - 3 = 40 \times 0.72$$

$$\text{So, } 21.2x = 28.8 + 3$$

$$\text{So, } 21.2x = 31.8$$

$$\text{So, } x = 1.5$$

$$\text{So, present age of 'A'} = 14 \times 1.5 = 21 \text{ years}$$

56. **Answer: (C)**

Tabulating the above data:

	2019	2020	2021
Physics	120	80	140
Chemistry	96	72	100
Mathematics	144	140	180
Statistics	128	136	96

The number of students who passed in physics and mathematics in 2020 = $80 + 140 = 220$

The number of students who passed in Statistics and chemistry in 2021 = $96 + 100 = 196$

$$\text{Required Percentage} = 220/196 \times 100 = 112.24\%$$

57. **Answer: (C)**

The ratio of the number of students who passed in statistics in 2019 = 128

The number of students who passed in mathematics in 2021 = 180

$$\text{Required ratio} = 128:180 = 32:45$$

58. **Answer: (C)**

The number of students who passed in chemistry in 2020 = 72

The number of students who passed in physics in 2021 = 140

$$\text{Required difference} = 140 - 72 = 68$$

59. **Answer: (A)**

The number of students who passed in statistics in 2020 = 136

The number of students who passed in physics in 2019 = 120

$$\text{Required percentage} = (136 - 120)/120 \times 100$$

= 13.33%

60. **Answer: (D)**

The number of students who passed in chemistry 2019 = 96

The number of students who passed in mathematics in 2019 = 144

Required average = $(96 + 144)/2 = 120$

English Language

61. **Answer: (A)**

In A, replace the second form verb BECAME with BECOME as the present perfect tense construction HAS + VERB will take the past participle form of the verb. Thus, (a) is the right answer.

62. **Answer: (C)**

In C, replace the base form verb RECOVER with RECOVERED as the passive voice construction CAN + BE + VERB will take the past participle form of the verb. Thus, (c) is the right answer.

63. **Answer: (B)**

In B, replace the second form verb ENSURED with ENSURE as the infinitive construction TO + VERB will take the base form of the verb. Thus, (b) is the right answer.

64. **Answer: (E)**

The sentence is grammatically and meaningfully correct, which makes (e) the right answer.

65. **Answer: (C)**

In C, replace the base form verb SUCCEED with SUCCEEDED as the present perfect tense construction HAS + VERB will take the past participle form of the verb. Thus, (c) is the right answer.

66. **Answer: (C)**

(c) is the correct answer. In C, replace the past participle form of the verb with base form (ATTRACT) to fit in the infinitive construction TO+VERB.

67. **Answer: (C)**

(c) is the correct answer. Replace the past participle form of the verb with the base form (PROCESS) as modal verbs (COULD) are followed by verbs in base form.

68. **Answer: (E)**

(e) is the correct answer. The sentence is grammatically and meaningfully correct.

69. **Answer: (A)**

(a) is the correct answer. We need the past participle form of the verb (CONFERRED) to fit in the simple past tense construction WAS+ VERB.

70. **Answer: (B)**

(b) is the correct answer. Replace the singular verb (was) with the plural verb (WERE) to agree with the plural noun (PLANS).

71. **Answer: (C)**

The phrase SCALED UP (increased in size, number, or extent) has been used in the sentence to convey that investment in climate change measures has been increased. The word AUGMENTED (increased in amount, value, or size) is similar to the highlighted phrase and can replace it. Thus, C is the right answer.

AGGRAVATED - made a bad situation worse.

AMELIORATED - made a bad situation better.

AERATED - filled with air.

72. **Answer: (C)**

The sentence discusses the glass (noun), and nouns are qualified/described by an adjective, so a

pair of adjectives should be used here instead of 'adverb and adjective' or 'adverb and adverb'. So, the given phrase and options (a) and (d) are incorrect. The correct pair of adjectives is mentioned in option (c), as it is clearly mentioned that 'one could look through the walls' and one cannot see through a dirty object, thus option (b) is contextually incorrect.

Hence, option (c) is correct.

73. **Answer: (E)**

'Has being precarious' is a grammatically incorrect phrase, so this phrase needs to be replaced ('has' is followed by past participle, whereas 'being' is a present participle of 'be').

Both 'precarious' and 'danger' means the same and usage of both words in one sentence is superfluous. So, option (a) is negated.

The context of the sentence is: living next to sea is dangerous because storms and tidal surges are common, and chances of lightning are high. Option (b) and (c) are contextually incorrect. Option (e) states the possibility of danger and it satisfies all the grammatical conditions. Hence, option (e) is the correct answer.

74. **Answer: (B)**

The sentence talks about lynching and the manner of its conduct. The first emboldened word should be an adjective that qualifies the noun "form" and starts with a vowel sound because it is preceded by the article "an". The only appropriate word that can be used with "an" which is also an adjective is "extreme". The second emboldened word should be another adjective defining the noun "control" and the most appropriate word is "social". The third emboldened word should be a verb or another adverb because it succeeds "often" which is an adverb. Also, the helping verb 'is' should be followed by the main verb in past participle (V3) or present participle (-ing) form. Therefore, the only suitable word is "conducted." Finally, the last emboldened word must be the noun "spectacle" which follows the adjective "public" and precedes the preposition "for." Hence, the correct sequence must be BADC.

The correct sentence is: Lynching is an extreme form of informal group social control, and it is often conducted with the display of a public spectacle for maximum intimidation.

Therefore, the correct answer is option b).

75. **Answer: (D)**

We cannot use the subjective pronoun 'I' after 'let'. 'Let' only takes objective pronouns like me, him, them, etc. So, the highlighted part of the sentence is incorrect.

In phrases like 'door to door' and 'day after day' (where the same noun follows and precedes the preposition), singular nouns are used. According to this, we can eliminate options (a) and (b). The determiner 'every' only takes singular nouns. So, the phrase 'every men and women' is incorrect. So, option (c) is also incorrect. Among the given options, option (d) is the correct choice.

The correct sentence is: Let me assure everyone that without taking people into confidence, there is no question of further movement on this line.

Hence, option (d) is the correct answer.

76. **Answer: (E)**

'To-infinitive' is to be used in the first blank, so a verb (in base form) is required. And in the second blank, a noun is required as 'be stewards and not' suggests that as per rule of parallelism a noun(stewards) is used before 'and' so a noun is required after it.

'Gawk' means stare openly and stupidly. 'Associator' means a person who associates with something. Both the words do not go with the context of the sentence.

'Envisaged' which means to think of something as being possible in the future; is not in the base form of verb, thus it cannot be used here. 'Raider' means attacker.

'Mount' means to organize something. 'Rescind' being a verb cannot fit in the second blank, it means to officially state that a law, contract, decision, etc. is no longer valid.

'Occlude' means to stop. 'Elusive' means not easy to catch, find or remember, it cannot be used in the second blank as it is an adjective.

'Transcend' means to go further than the usual limits of something. 'Spoilers' means a person or thing that spoils something. It can be interpreted from the sentence that the focus is to be a supporter of creation, not a destroyer.

Hence, option (e) is correct.

77. **Answer: (D)**

Sentence C is incorrect. If two auxiliary verbs are used with one main verb, the form of the main verb must be appropriate to both of them. The modal verb 'will' is always followed by a base verb. But, the verb that comes after the auxiliary verb 'have' should be in its past participle form. So, we should use the past participle verb 'provided' after the auxiliary verb 'have'.

The correct sentence is: I have provided and will provide for this family till the last day of my life.

Hence, option (d) is the correct answer.

78. **Answer: (A)**

In A, replace the singular verb FACES with the second form verb FACED as the sentence is talking about the past (budgetary crises in France in the 18th century). Thus, A is the right answer.

79. **Answer: (A)**

The error is in part (C). The usage of modal verb 'will' is incorrect, instead modal verb 'would' should be used as per the rule of third conditional:

If	+	Past	Perfect	would	have	+	past
Tense				participle			

Hence, option (a) is correct.

80. **Answer: (D)**

The sentence tells us how emotions remain (last) for short periods of time, and they usually (typically) occur in response to a certain situation. The noun PARTICULARS refers to details of something, and is inappropriate in this context. It should be replaced with PARTICULAR (specific) as we need an adjective to modify the noun SITUATION. Thus, D is the right answer.

81. **Answer: (D)**

In the given sentence, the word 'deaffening' is incorrectly spelt.

Deafening: overwhelmingly loud; booming

Hence, option (d) is the correct answer.

Illuminated: brightened with light

82. **Answer: (C)**

I - This sentence describes the blooming of a beautiful flower in the garden. It is grammatically correct and fits in the context. The word "rose" is used here as a noun, referring to the flower.

II - In II, however, no possible meaning does fit in contextually. We can use the word 'roast' in place of 'rose' in the second statement.

III - This sentence describes a person getting up from a chair and walking to the window to see the sunset. It is grammatically correct and meaningful. The word "rose" is used here as a verb, indicating the action of getting up.

Hence, (c) is the correct answer.

83. **Answer: (A)**

RPTSQ is the final order. The passage revolves around how AI is impacting our lives. R begins the passage by establishing the subject - AI IS TRANSFORMING INDUSTRIES and telling us how AI is helping us solve problems in new ways. P, T and S follow by talking about one sector which is being transformed - healthcare. Out of the three sentences, P comes first by talking about how AI is making a big impact by helping medical professionals develop new treatments. TS follow as a mandatory pair by giving us examples of how AI is helping medical professionals mentioned in P. Q comes last by mentioning another (transportation) sector being transformed by AI.

84. **Answer: (D)**

RPTSQ is the final order.

85. **Answer: (E)**

RPTSQ is the final order.

86. **Answer: (B)**

RPTSQ is the final order.

87. **Answer: (C)**

RPTSQ is the final order.

88. **Answer: (D)**

We need a noun to be modified by the adjective INTERESTING. ATTRIBUTE (characteristic) will fit here as the sentence talks about an interesting aspect of the Sun. Thus, D is the right answer.

FEATURES is a plural noun whereas we need a singular noun to be modified by the quantifier ONE.

Ploy - a cunning plan of action. Decoy - something used to mislead someone. Futile (adjective) - pointless.

89. **Answer: (C)**

The sentence tells us how the increasing magnetic pressure decreases atmospheric pressure, which further lowers the temperature relative to its surroundings. We need a word or phrase to convey the meaning of one thing leading to another. IN TURN (in succession; one by one) will fit here. Thus, C is the right answer.

Dive into - start doing something enthusiastically. Above board - honest and open. Gives off - releases something. Draws in - arrives in a place.

90. **Answer: (E)**

We need a singular verb here to agree with the singular subject MAGNETIC FIELD. The sentence tells us how the concentrated magnetic field prevents the flow of hot, new gas from the interior of the Sun. INHIBITS (hinders or restrains) will fit here. Thus, E is the right answer.

Ingests - eats or drinks something. Dangles - swings loosely. Rebels - disobeys one's authority. Witnesses - observes.

91. **Answer: (B)**

We need a singular verb to agree with the singular subject SPOT. CONSISTS (is composed of) will fit here as the sentence tells us how a typical sunspot includes a dark region called umbra. Thus, B is the right answer.

COMPRISES and CONTAINS will not take the preposition OF after them. Winces - give a facial expression of pain or disgust. Desists - avoids doing something.

92. **Answer: (A)**

We need an adverb to modify the adjective DARK. RELATIVELY (comparatively) will fit here as the sentence tells us how the SUNSPOTS appear dark in comparison to the surrounding surface. RELATIVELY (in comparison to something else) will here. Thus, A is the right answer.

Tacitly - in an indirect manner. Courteously - politely. Scornfully - in a disrespectful manner.

93. **Answer: (C)**

According to the following sentence from the first paragraph, 'Amid rising geopolitical risks, a vast majority of Indian CEOs have indicated in a survey that they are reducing or planning to reduce operating costs', it can be noted that Indian CEOs wanted to reduce the costs that incur on operations of their organisation. Accordingly, the correct answer is given in option (c) 'They wanted to reduce operations costs'.

Hence, the correct answer is option (c).

94. **Answer: (C)**

According to the following sentence from the second paragraph, 'Also, about 78% of Indian CEOs, 73% of global CEOs and 69% of Asia Pacific CEOs believe that global economic growth will decline over the next 12 months', it can be noted that there is a general opinion among CEOs that an economic slump is expected in next twelve months. Accordingly, statement II is a conclusion from the survey. Statements I and III are neither mentioned in the survey nor given anywhere in the passage, so they are negated.

Hence, the correct answer is option (c).

95. **Answer: (A)**

According to the following sentence from the third paragraph, 'Responding to a question on what actions, if any, their company is considering for the next 12 months because of the conflict in Europe, 67% of Indian CEOs said they are adjusting supply chains', it can be noted that since there is a conflict that still goes on in Europe, Indian CEOs wanted to make changes to their supply chain to adjust to the economic conditions. Accordingly, the correct answer is given in option (a) 'The supply chain will be customized'.

Hence, the correct answer is option (a).

96. **Answer: (C)**

According to the following sentence from the fourth paragraph, 'Besides, 59% highlighted they are diversifying products and services; 50% emphasised they are increasing investments in cyber security and data privacy, and 48% talked about adjusting their presence in current markets and/or expanding into new markets', it can be

noted that the CEOs, in order to manage the conflict in Europe want to diversify their products and services, increase investment in sectors related to data and privacy and to expand into new markets or to make some modifications to their current market area. Accordingly, statements I and II alone are given in the passage and statement III is not a strategy that is to be followed by CEOs.

Hence, the correct answer is option (c).

97. **Answer: (C)**

According to the following sentence from the first paragraph, 'However, most of the companies do not plan to cut their headcount or salaries', it can be noted that the companies do not want to cut down expenses on labourers and their wages. Accordingly, the correct answer is given in option (c) 'Human resource and wages to employees'.

Hence, the correct answer is option (c).

98. **Answer: (E)**

According to the following sentence from the second paragraph, 'More than five in ten CEOs (57%) express optimism about India's economy over the next 12 months', it can be noted that CEOs in common believe that India's economy may have some positivity in the next 12 months. Accordingly, the correct answer is given in option (e) 'CEOs have some positive opinion about India's economy for the next one year'.

Hence, the correct answer is option (e).

99. **Answer: (D)**

Elegantly- in a graceful and stylish manner
Reluctantly- in an unwilling and hesitant way
Fondly- with affection or liking
Economically- in a way that relates to economics or finance
Empirical- based on, concerned with, or verifiable by observation or experience rather than theory or pure logic

The given blank is followed by the adjective 'viable' that requires an adverb to qualify it. Option (e) 'empirical' is an adjective, so it is negated. 'Elegantly', 'reluctantly' and 'fondly' are contextually irrelevant to the given sentence and thus they are negated. Option (d) 'economically' is the most appropriate option that matches the context of the sentence and thus can fill the given blank.

Hence, the correct answer is option (d).

Note:

Qualifiers: A word or phrase that limits the meaning of another word or phrase or makes it less general. 'Adverbs' and 'adjectives' are qualifiers.

100. **Answer: (C)**

Dull- lacking interest or excitement
Superior- of high standard or quality
Cheerful- noticeably happy and optimistic
Genuine- truly what something is said to be; authentic
Critical- expressing adverse or disapproving comments or judgements

The meaning of the word 'upbeat' is 'optimistic or cheerful'. Among the given options the word that is synonymous with the given word is option (c) 'cheerful'.

Hence, the correct answer is option (c).