

"Your commitment paired with our coaching is a path of your success"

Join Us Now

And Start Your Success Journey

☎ 01141676717

✉ info@scholarssacademy.in

🌐 www.scholarssacademy.in



Rajnish Bhatnagar

SBI PO Pre

SCHOLARS ACADEMY

Solution

SPP-909214129-E



Scholars Academy

Download Our APP
Scholars Academy



Reasoning Aptitude

1. **Answer: (E)**
Starting Point: Start with P4, P5 and P3 for least possible cases.
The distance between extreme ends is 42m, which means distance between any two consecutive persons is 6m.

Clues:

- 1) P4 sits 12m from one of the extreme ends.
- 2) The distance between P3 and P5 is 18m.
- 3) P4 sits 6m to the right of P5. P3 doesn't sit at any extreme end.

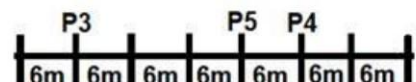
Inferences:

From clue 1, we have two cases, first, when P4 sits 3rd from extreme left end and second, when P4 sits 3rd from the extreme right end.
From clue 2 and 3, in both the cases, P4 sits immediate right of P5.

Case 1: When P4 sits 3rd from extreme left end.



Case 2: When P4 sits 3rd from the extreme right end.



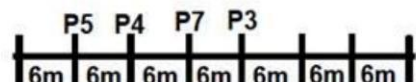
Clues:

- 1) As many persons sit to the right of P3 as to the left of P7.

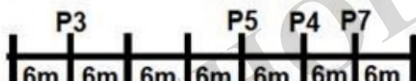
Inferences:

From clue 1, in case 1, P7 sits immediate left of P3 and in case 2, P7 sits 2nd from the extreme right end.

Case 1: When P4 sits 3rd from extreme left end.



Case 2: When P4 sits 3rd from the extreme right end.



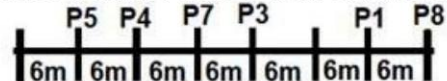
Clues:

- 1) Distance between P7 and P8 is more than 18m.
- 2) P1 sits adjacent to P8.

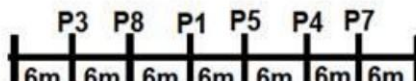
Inferences:

From clue 1 and 2, in case 1, P8 sits at extreme right end and in case 2, P8 sits immediate right of P3.

Case 1: When P4 sits 3rd from extreme left end.



Case 2: When P4 sits 3rd from the extreme right end.



Clues:

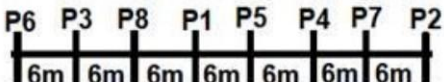
- 1) Distance between P1 and P6 is at least 12m.
- 2) Distance between P2 and P1 is more than 18m.

Inferences:

From clue 1 and 2, case 1 gets eliminated as either P2 or P6 sits immediate left of P1.

From clue 1 and 2, in case 1, P6 sits at extreme left end and P2 sits at extreme right end.

The final arrangement is as follows:



P2 sits at the extreme right end of the row.

- 2. **Answer: (A)**
Distance between P2 and P4 is 12m.
- 3. **Answer: (C)**
P4 sits 24m away from P3.
- 4. **Answer: (D)**
Among the given options, only P6 sits at one of the extreme ends.
- 5. **Answer: (B)**

Starting Point: Start with D, A and C for least possible cases.

Direct clues:

- 1) Age of D is a perfect square.

Inferences:

From clue 1, age of D is either 36 years or 25 years.
Case 1: When D is 36 years old.

Year (Age)	Person
1984 (38)	
1986 (36)	D
1989 (33)	
1991 (31)	
1994 (28)	
1997 (25)	
2001 (21)	
2004 (18)	

Case 2: When D is 25 years old.

Year (Age)	Person
1984 (38)	
1986 (36)	
1989 (33)	
1991 (31)	
1994 (28)	
1997 (25)	D
2001 (21)	
2004 (18)	

Clues:

- 1) A is 2 years older than F.
- 2) Difference between the age of C and G is 3 years.
- 3) C is not born in an odd numbered year.
- 4) H is born after G.

Inferences:

From clue 2, 3, 4, and 5, in case 1, A was born in 1989 and C was born in 1994. In case 2, A was born in 1984 and C was born in 1994.

Case 1: When D is 36 years old.

Year (Age)	Person
1984 (38)	
1986 (36)	D
1989 (33)	A
1991 (31)	F
1994 (28)	C
1997 (25)	G
2001 (21)	H/
2004 (18)	/H

Case 2: When D is 25 years old.

Year (Age)	Person
1984 (38)	A
1986 (36)	F
1989 (33)	
1991 (31)	G
1994 (28)	C
1997 (25)	D

2001 (21)	H/
2004 (18)	/H

Clues:

1) Difference of age between D and B is one year less than the difference between E and H.

Inferences:

From clue 1, case 2 gets eliminated and in case 1, B was born in 1984 and either E or H was born in either 2001 or 2004

The final arrangement is as follows:

Year (Age)	Person
1984 (38)	B
1986 (36)	D
1989 (33)	A
1991 (31)	F
1994 (28)	C
1997 (25)	G
2001 (21)	H/E
2004 (18)	E/H

A was born in the year 1989

6. Answer: (E)

Either four or five persons were born between E and D.

7. Answer: (A)

Age of D is 36 years and age of G is 25 years.
Difference = 36 - 25 = 11 years

8. Answer: (C)

A was born five years before C.

9. Answer: (B)

G	E	N	E	R	O	U	S
1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th
E	R	O	S				
2 nd	5 th	6 th	8 th				

So, the words formed are ROSE, SORE and EROS.

Thus, 'Z' is the correct answer.

10. Answer: (B)

Starting Point: Start with T and R for least possible cases.

Clues:

- 1) The weight of 2nd heaviest box is 59kgs.
- 2) Only one box is lighter than V.
- 3) P is just heavier than U, which is heavier than R.
- 4) Two boxes have weight between V and P.

Inferences:

From clue 2, 3 and 4, V is the second lightest container, P is 3rd heaviest container.

___ > ___ (59) > P > U > ___ > V > ___

Clues:

- 1) S is just heavier than T.
- 2) R is not the lightest container.
- 3) The difference between the weight of T and R is 20kgs.

Inferences:

From clue 1 and 2, S is the heaviest and R is 3rd lightest container.

From clue 3, R's weight is 39kgs.

The final arrangement is as follows:

S > T (59) > P > U > R (39) > V > Q

Weight of R = 39kgs

P is 3rd heaviest container.

P + R = 89kgs

P = 89 - 39

P = 50kgs

So, the possible weight of U is 45 kgs

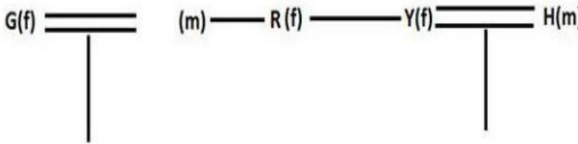
11. Answer: (C)

U is the 3rd heaviest container.

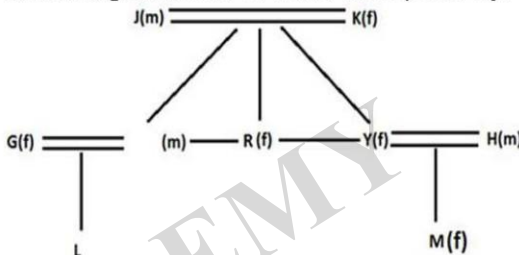
12. Answer: (E)

Father of L cannot be determined. Hence, 'e' is the correct option.

- G is the mother of the son of R's brother.
- Y is sister of the husband of G.
- R is the aunt of the daughter of H who is not brother of R.



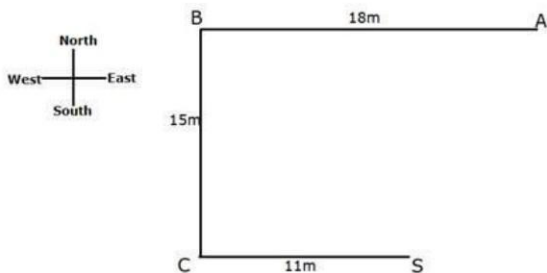
· K is the paternal grandmother and J is the maternal grandfather of L and M respectively.



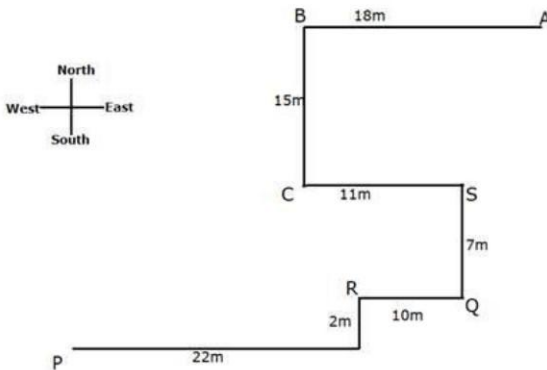
So, can't determined.

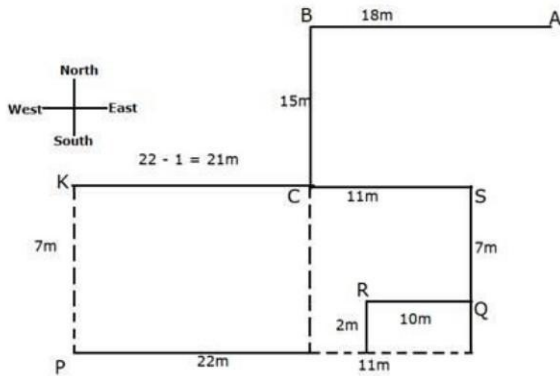
13. Answer: (B)

Nupur started from point A. Point B is 18m to the west point A. From point B, she moves 15m to the south to reach point C. Point S is 11m to the east of point C.



From point P, Naina moves 22m towards east and then she takes left turn and walks 2m to reach point R. She then turns to her right and walks for another 10m to point Q. After that, she turns to her left and walk for 7m to reach point S and stops there.





Point C is 21m to the east of point K.

14. **Answer: (E)**
Except B-S all the pairs first letter is southwest of second letter i.e C is south west of A, R is southwest of S, P is southwest of Q and R is southwest of A.
15. **Answer: (C)**
From statement I and II, either 'Ethnic' or 'Wear' is coded as either 'qq' or 'rr'.
From statement I and III, 'Rajasthan' is coded as 'pp'.
From statement II and III, 'only' is coded as 'ss'.
From clue III and IV, 'Games' is coded as 'dd' and 'win' is coded as 'tt'.
From statement I and IV, 'Great' is coded as 'nn'.
From statement II alone, 'Clothes' is coded as 'oo'.
From statement IV alone, either 'they' or 'great' is coded as either 'mm' or 'ee'.

The word and their respective codes are as follows.

Words	Codes
Rajasthan	pp
Ethnic	rr/qq
Wear	rr/qq
Great	nn
Clothes	oo
Only	ss
Win	tt
Games	dd
They	ee/mm
Won	mm/ee

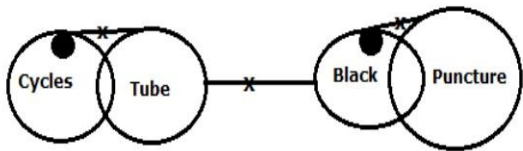
'ss, pp, oo' is coded as 'only Rajasthan clothes'.

16. **Answer: (D)**
If 'Wear Clothes' is coded as 'rr, oo', means the code of 'Wear' is 'rr' and the code of 'Ethnic' is 'qq'.

Words	Codes
Rajasthan	pp
Ethnic	qq
Wear	rr
Great	nn
Clothes	oo
Only	ss
Win	tt
Games	dd
They	ee/mm
Won	mm/ee

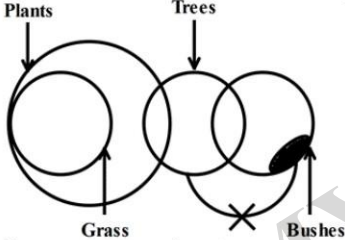
So, the code of 'Ethnic culture Games' can be 'qq, dd, bb'.

17. **Answer: (C)**
The code of the word 'only win' is 'ss, tt'
18. **Answer: (C)**
Venn diagram:



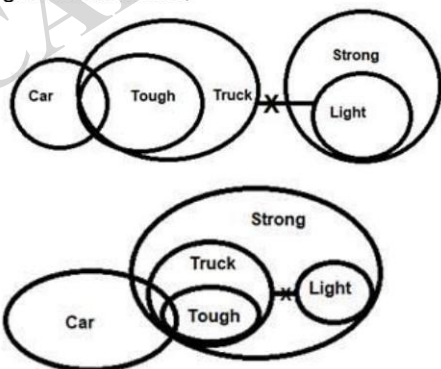
- I. Few Black are Cycles ----- Possibility
II. Few Puncture are Tube ----- Possibility
So, Neither conclusion I nor II is the correct answer.

19. **Answer: (A)**
The given statements are,
Only plants are grass. Only a few bushes are trees.
Some plants are trees.
The basic minimum overlapping diagram is,



Here, no grass is a tree and no grass can be bush.
Hence, the conclusion I follows and conclusion II does not follow.

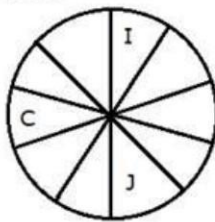
20. **Answer: (B)**
The following Venn diagram can be drawn from the given statements,



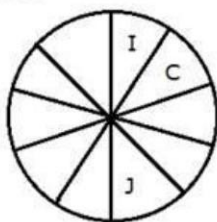
From the above Venn diagram, conclusion I follows and conclusion II does not follow.
The part of Car which is Truck can never be Light. So, conclusion III follows.
So, only conclusions I and III follow.

21. **Answer: (C)**
A circular farm is divided into ten equal regions, viz., A, B, C, D, E, F, G, H, I and J, but not necessarily in the same order.
Note: Consider your left-hand side as a right side and your right-hand side as a left side of a farm.
I is fourth to the left of J.
Two farms are between J and C.

Case 1

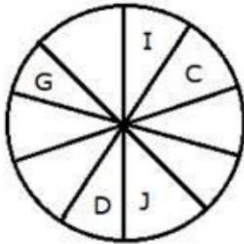


Case 2



G is third to the right of D, which is sixth to the left of C. Thus, case 1 is invalid.

Case 2



E is immediate to the left of H. Four farms are between B and E.

Case 2



F is not adjacent to B.
Therefore, the final arrangement is:



There are four farms between A and C when counted in clockwise or anticlockwise direction.

22. **Answer: (D)**
Except (d), in all other options, both the farms are adjacent to each other.
23. **Answer: (E)**
Farm E is second to the right of Farm I.
24. **Answer: (D)**
Except (d), all other statements are false.
25. **Answer: (A)**
If farm J is replaced by Farm M and Farm F is replaced by Farm K, then the representation will be:



Thus, farm M is immediate right of farm H and fifth to the left or right of farm K.

26. **Answer: (E)**
C and R live in flat 1 of floor 2 and flat 3 of floor 1 respectively.
The flat and floor number of T is same.

Z lives immediately below T in the same flat.

Case 1:

	Flat 1	Flat 2	Flat 3	Flat 4
Floor 3				
Floor 2	C	T		
Floor 1		Z	R	

Case 2:

	Flat 1	Flat 2	Flat 3	Flat 4
Floor 3			T	
Floor 2	C		Z	
Floor 1			R	

Only one floor is between O and F.
O lives above F in an even number flat.
O and F live in the same flat.
F lives immediately east of X.
Thus, Case 1 gets cancelled.

Case 2:

	Flat 1	Flat 2	Flat 3	Flat 4
Floor 3		O	T	
Floor 2	C		Z	
Floor 1	X	F	R	

A lives immediately above V in the same flat.
A does not live on floor 3.

	Flat 1	Flat 2	Flat 3	Flat 4
Floor 3		O	T	
Floor 2	C		Z	A
Floor 1	X	F	R	V

C lives immediately west of K.

	Flat 1	Flat 2	Flat 3	Flat 4
Floor 3		O	T	
Floor 2	C	K	Z	A
Floor 1	X	F	R	V

I does not live in flat 4.

	Flat 1	Flat 2	Flat 3	Flat 4
Floor 3	I	O	T	M
Floor 2	C	K	Z	A
Floor 1	X	F	R	V

This is the final arrangement.

M lives in flat 4.

27. **Answer: (E)**
I lives in flat 1.
Only one floor is between M and V.
O lives immediately east of I.
F lives below Z.
All these statements are true.
28. **Answer: (B)**
K lives flat 2 floor 2.
29. **Answer: (D)**
Except A, all other persons live in an odd numbered floor.
30. **Answer: (A)**
F lives immediately below K, who lives immediately west of Z.

Quantitative Aptitude

31. **Answer: (C)**
Average income of all employees before increment
= $40,000 \times 100/125 = ₹32,000$
Income of Arun = $32000 \times 120/100 = ₹38,400$
32. **Answer: (B)**
Let numerator of a fraction = $9a$
Denominator of a fraction = $5a$
 $(9a + 15)/(5a + 15) = 3/2$
 $18a + 30 = 15a + 45$
 $a = 5$

So, the denominator of the original fraction
 $= 5 \times 5 = 25$

33. **Answer: (B)**

From I:

$$18x^2 - 45x + 28 = 0$$

$$18x^2 - 21x - 24x + 28 = 0$$

$$(3x - 4)(6x - 7) = 0$$

$$x = 4/3, 7/6$$

$$x = 1.33, 1.17$$

From II:

$$12y^2 - 20y + 7 = 0$$

$$12y^2 - 6y - 14y + 7 = 0$$

$$(6y - 7)(2y - 1) = 0$$

$$y = 7/6, 1/2$$

$$y = 1.17, 0.5$$

When $x = 4/3$, $y = 7/6$, then $x > y$

When $x = 4/3$, $y = 1/2$, then $x > y$

When $x = 7/6$, $y = 7/6$, then $x = y$

When $x = 7/6$, $y = 1/2$, then $x > y$

Hence, $x \geq y$

34. **Answer: (C)**

From equation I.

$$3X^2 - 51X + 198 = 0$$

$$3X^2 - 33X - 18X + 198 = 0$$

$$3X(X - 11) - 18(X - 11) = 0$$

$$(3X - 18)(X - 11) = 0$$

$$X = 6, 11$$

From equation II.

$$3Y^2 + 9Y - 162 = 0$$

$$3Y^2 - 18Y + 27Y - 162 = 0$$

$$3Y(Y - 6) + 27(Y - 6) = 0$$

$$(3Y + 27)(Y - 6) = 0$$

$$Y = 6, -9$$

	Y = 6	Y = -9
X = 6	X = Y	X > Y
X = 11	X > Y	X > Y

Hence, $X \geq Y$

35. **Answer: (B)**

Let radius of circle is 'r' cm and shorter side of rectangle is 'b' cm. Then,

Longer side of rectangle = $b + 4$

Now, area of circle = $(22/7) \times r \times r$

And, area of rectangle = $b \times (b + 4)$

Then, $7 : 8 = ((22/7) \times r \times r) : (b \times (b + 4)) \dots (i)$

Also, perimeter of circle = $2 \times (22/7) \times r = 44r/7$

Perimeter of rectangle = $2 \times (b + b + 4) = 4b + 8$

Then, $4b + 8 = 14 + 44r/7$

$r = 7(2b - 3)/22$

By substituting the value of 'r' in equation (i), we get

$$7 : 8 = ((22/7) \times (7(2b - 3)/22)^2) : (b \times (b + 4))$$

$$5b^2 - 92b + 36 = 0$$

$$5b^2 - 90b - 2b + 36 = 0$$

$$(5b - 2)(b - 18) = 0$$

$b = 2/5$ and 18 (but length of side is an integer)

Then, $b = 18$

Therefore, perimeter of rectangle = $4b + 8 = 4 \times 18$

$+ 8 = 80$ cm

36. **Answer: (A)**

Profit earned on one item = $(3y - 5)\%$ of 2000

$$= 20 \times (3y - 5)$$

Loss incurred on other item = $(2y - 3)\%$ of 2000

$$= 20 \times (2y - 3)$$

Total profit earned = Profit earned on one item -

Loss incurred on other item

$$40 = 20 \times (3y - 5) - 20 \times (2y - 3)$$

$$2 = 3y - 5 - 2y + 3$$

$$y = 4$$

37. **Answer: (A)**

Number of ₹2 coins = 8

Total coins = $11 + 8 + 9 = 28$

Required probability = ${}^8C_3 / {}^{28}C_3 = 2/117$

38. **Answer: (C)**

$$74.86\% \text{ of } (6.01^3 + 17.99^2 + 59.96) = ? \times \sqrt{9.1}$$

$$75\% \text{ of } (6^3 + 18^2 + 60) \sim ? \times \sqrt{9}$$

$$75\% \text{ of } (216 + 324 + 60) \sim ? \times 3$$

$$75\% \text{ of } 600 \sim ? \times 3$$

$$450 \sim ? \times 3$$

$$? \sim 450 \div 3$$

$$? \sim 150$$

39. **Answer: (C)**

$$119.86 \text{ of } 24.89 \div 15.89 \text{ of } 14.84 \times 8.02 = ?^2 + 18.982$$

$$120 \text{ of } 25 \div 16 \text{ of } 15 \times 8 \sim ?^2 + 19$$

$$3000 \div 240 \times 8 \sim ?^2 + 19$$

$$?^2 \sim 12.5 \times 8 - 19$$

$$?^2 \sim 100 - 19$$

$$?^2 \sim 81$$

$$? \sim \pm 9$$

40. **Answer: (A)**

$$\frac{\sqrt{290} \times \sqrt{325}}{\sqrt{15} + \sqrt{170}} + \frac{71.98}{?} = \sqrt{902}$$

$$\frac{\sqrt{289} \times \sqrt{324}}{\sqrt{16} + \sqrt{169}} + \frac{72}{?} \sim \sqrt{900}$$

$$\frac{17 \times 18}{4 + 13} + \frac{72}{?} \sim 30$$

$$\frac{72}{?} \sim 30 - \frac{17 \times 18}{17}$$

$$\frac{72}{?} \sim 30 - 18$$

$$? \sim 6$$

41. **Answer: (E)**

$$34.78\% \text{ of } 399.892 \div (15.78 - 8.92) = ? \times 4.98 - \sqrt{401}$$

$$35\% \text{ of } 400 \div (16 - 9) \sim ? \times 5 - \sqrt{400}$$

$$140 \div 7 \sim ? \times 5 - 20$$

$$20 \sim ? \times 5 - 20$$

$$? \times 5 \sim 40$$

$$? \sim 8$$

42. **Answer: (A)**

Logic for the given series -

$$157 - 7^2 = 108$$

$$108 - 6^2 = 72$$

$$72 - 5^2 = 47$$

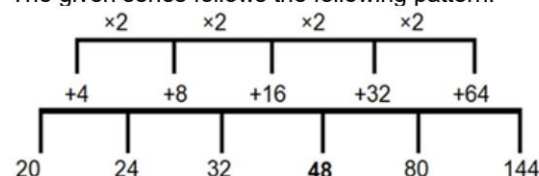
$$47 - 4^2 = 31$$

$$31 - 3^2 = 22$$

Hence, missing term = 22

43. **Answer: (D)**

The given series follows the following pattern:



44. **Answer: (E)**

Total simple interest earned from Prachi and Ankita = ₹2920

$$[6600 \times 5 \times t/100] + [8000 \times 5 \times t/100] = 2920$$

$$5t \times 146 = 2920$$

$$t = 4 \text{ years}$$

Simple interest earned from Preeti = $5000 \times 5 \times 4/100$

$$= ₹1000$$

45. **Answer: (B)**

Let the distance between point P and Q = D km

Original speed of swimmer in upstream = $15 - 3$

= 12 km/h

Upstream speed of swimmer when he increased his speed = $(15 + 4) - 3 = 16$ km/h

According to the question:

$$(16/12) + [(D - 16)/16] = (D/12) - (40/60)$$

$$(16/12) + (40/60) = (D/12) - [(D - 16)/16]$$

$$2 = (20D - 15D + 240)/240$$

$$480 - 240 = 5D$$

$$D = 48$$

Distance between P and Q = 48 km

46. **Answer: (A)**

Speed = 60 km/hr = 60km per 60 minutes.

Hence distance travelled in 15 minutes = 15 km

= distance of office from Chanda's home.

Hence, time taken to cover the distance on foot

$$= 15/5 = 3 \text{ hours}$$

47. **Answer: (A)**

Number of months for which Amal invested in the business = $20 + 4 = 24$ months

Let the profit share of Amal out of the total profit of ₹8200 = ₹Y

Then, profit share of Kamal out of the total profit of ₹8200 = ₹(Y + 1800)

$$\text{So, } Y + Y + 1800 = 8200$$

$$\text{Or, } Y = (8200 - 1800) \div 2 = 3200$$

So, profit shares of Amal and Kamal are ₹3,200 and ₹5,000, respectively.

So, respective ratio of profit shares of Amal and Kamal = $(X \times 24) : \{(X + 700) \times 20\}$

$$= 24X : (20X + 14000) = 3200 : 5000 = 16 : 25$$

$$\text{So, } 24X \times 25 = (20X + 14000) \times 16$$

$$\text{Or, } 600X = 320X + 224000$$

$$\text{Or, } X = 224000 \div 280 = 800$$

48. **Answer: (C)**

Let the capacity of tank = L.C.M of 36, 20 and 24 = 360

The efficiency = total capacity of tank/ time taken by pipe

$$\text{The efficiency of 1st pipe} = 360/36 = 10$$

$$\text{The efficiency of 2nd pipe} = 360/20 = 18$$

The efficiency of pipe and leakage together

$$= 360/24 = 15$$

$$\text{The efficiency of leakage} = 10 + 18 - 15 = 13$$

$$\text{Time taken by leakage to empty tank} = 360/13$$

$$\text{The capacity of tank} = (360/13) \times 26 = 720 \text{ gallons}$$

49. **Answer: (B)**

Time taken by 'B' to complete the work alone = $30 \div 2 = 15$ days

Time taken by 'C' to complete the work alone = $15 \times 3 = 45$ days

Let the total work be 90 units. {LCM (15, 30 and 45)}

$$\text{So, efficiency of 'A'} = (90/30) = 3 \text{ units/day}$$

$$\text{Efficiency of 'B'} = (90/15) = 6 \text{ units/day}$$

$$\text{Efficiency of 'C'} = (90/45) = 2 \text{ units/day}$$

Let the number of days for which 'A' works be 'x'.

ATQ;

$$3x + 6 \times 9 + 2 \times 9 = 90$$

$$\text{Or, } 3x = 90 - 54 - 18$$

$$\text{Or, } 3x = 18$$

$$\text{Or, } x = 6$$

So, 'A' needs to work for 6 days, which means he must join them after 3 days.

50. **Answer: (E)**

Let Vani's present age = $(19x + 2)$ years and Pihu's present age = $(12x + 2)$ years.

Jatin is 6 years younger than Vani.

$$\Rightarrow \text{Jatin's present age} = 19x + 2 - 6 = 19x - 4$$

The ratio of Pihu's age 5 years hence and Jatin's age 7 years hence, will be 43: 60 .

$$\Rightarrow (12x + 2 + 5)/(19x - 4 + 7) = 43: 60$$

$$\Rightarrow 720x + 420 = 817x + 129$$

$$\Rightarrow 97x = 291$$

$$\Rightarrow x = 3$$

Hence, Vani's age after three years = $19 \times 3 + 2 + 3 = 62$ years

51. **Answer: (E)**

Number of books of maths sold in March = 144 hundred

Number of books of Biology sold in March = 162 hundred

Number of books of Physics sold in March = $144 \times 5/4 = 180$ hundred

Number of books of chemistry sold in March = $162 + 200 = 362$ hundred

Similarly, calculating the remaining data:

	Maths	Biology	Physics	Chemistry
March	14400	16200	18000	36200
April	7200	12800	9000	32800
May	8400	8000	10500	28000
June	9600	11200	12000	31200
July	12000	8800	15000	28800
August	10800	6400	13500	26400

The number of books of physics sold in March = 18000

The number of books of chemistry sold in July = 28800

$$\text{So, required ratio} = 18000 : 28800 = 5 : 8$$

52. **Answer: (D)**

The number of books of chemistry sold in September = $26400 \times 12/11 = 28800$

The number of books of physics sold in August = 13500

$$\text{So, required difference} = 28800 - 13500 = 15300$$

53. **Answer: (C)**

The number of books of chemistry sold in April = 32800

The number of books of physics sold in July = 15000

$$\text{So, required percentage} = (32800 - 15000)/15000 \times 100 = 118.66\%$$

54. **Answer: (A)**

The number of books of physics sold in February = $50/100 \times 32800 = 16400$

55. **Answer: (A)**

So, average number of books of physics sold in March and May together = $(18000 + 10500)/2 = 14250$

56. **Answer: (C)**

Total no. of employees working in IT department = 2080

Total no. of employees working in R&D department = 800

$$\text{Difference} = 2080 - 800 = 1280$$

57. **Answer: (B)**

Employees working in the account department in Company A/ Employees working in the account department in company B = 4:5

960/ Employees working in the account department in company B = 4/5

Employees working in the account department in company B = $960 \times 5/4 = 1200$

58. **Answer: (A)**

The total employees working in company A in year 2024 = total employees working in company A in year 2023 $\times (100 + 20)/100$
 $= 8000 \times 120/100$
 $= 9600$

The no. of employees working in the marketing department in the year 2024
 $= 9600 \times 15/100 = 1440$

59. **Answer: (D)**

The total no. of employees working in the HR department / The total no. employees working in the Finance department = $1360/1600 = 17/20$

60. **Answer: (A)**

The average number of employees working in the R&D department and the account department
 $= (800 + 960)/2$
 $= 880$

English Language

61. **Answer: (C)**

The final arrangement is 'QPRTS'. 'Q' informs that the subject of the paragraph is to discuss between the attributes of domestic market alliances and international market alliances. So, 'Q' is the first sentence of the paragraph. Among domestic market alliances and international market alliances, domestic market alliance is mentioned first. So, among 'P', which specifies an attribute of domestic market alliance, and 'R', which specifies an attribute of International market alliance, 'P' would come first, making it the second sentence of the paragraph, while 'R' would follow 'P', making it the third sentence of the paragraph. 'T' informs that there is another key difference between the two in terms of dissolution besides the differences discussed above, and 'S' specify the difference which is based on dissolution. So, 'T' would be the fourth sentence of the paragraph and 'S' would be the fifth sentence of the paragraph. Hence, (c) is the correct answer.

62. **Answer: (E)**

63. **Answer: (B)**

64. **Answer: (A)**

65. **Answer: (D)**

66. **Answer: (D)**

There is an error in the part (d) of the sentence. The finite verb 'frighten' has a helping verb 'has' which is used to present perfect tense. We need to replace 'frighten' with 'frightened'.

Hence, (d) is the correct answer.

67. **Answer: (C)**

There is an error in the part (c) of the sentence. The usage of the preposition 'in' is incorrect as per the context of the sentence. The correct preposition to use is 'at'.

Hence, (c) is the correct answer.

68. **Answer: (B)**

There is an error in the part (b) of the sentence. Noun should be plural after the phrase 'one of'. We need to replace (singular) dozen to (plural) dozens.

Hence, (b) is the correct answer.

69. **Answer: (A)**

There is an error in the part (a) of the sentence. The singular finite verb 'perceives' is preceded by a plural noun-phrase 'Many Chinese consumers'. This is an error of subject-verb agreement. To correct the

sentence, we need to replace 'perceives' with 'perceive'.

Hence, (a) is the correct answer.

70. **Answer: (E)**

The given sentence is grammatically correct and contextually meaningful. There is no error in the sentence.

Hence, (e) is the correct answer.

71. **Answer: (B)**

Only sentence III is grammatically and meaningfully correct. In I, HERS should be replaced with HER, as we need a possessive adjective to modify the noun DESIGNS and convey that they belonged to the nail artist. HERS is a pronoun. In II, the plural verb HAVE should be replaced with its singular form HAS, as the subject of the verb, THE FIRM, is singular. Thus, B is the right answer.

72. **Answer: (C)**

Singular verb 'helps' is incorrectly used with the plural noun 'people' so it must be swapped with a plural verb and the only plural verb among the highlighted words is 'find', so 'find' would be placed at A and 'helps' would be used at E. The sentence is about setting time for different tasks in every day routine, for which the sentence intends to convey different time slots with different tasks. But, both the phrases 'right before morning' and 'first thing in the bed' refer to the same time slot, i.e., night which is repetitive. If, 'morning' and 'bed' are interchanged, new phrases would be 'right before bed' and 'first thing in the morning' which would convey the night and day, respectively. Rest of the words are correctly used at their places.

Correct sentence:

Some people **find** that having a set time every **day** - right before **bed**, first thing in the **morning**, just after a workout - **helps** establish a habit.

Hence, option (c) is correct.

73. **Answer: (E)**

The sentence seeks to convey that there has been an increasing interest in using more advanced artificial intelligence and machine learning models as cyberattacks are occurring more often and becoming more harmful. All the words are contextually and grammatically correct. Thus, E is the right answer.

74. **Answer: (B)**

(A) and (D) are meaningful at their respective places but (B) needs to be interchanged with (C) because 'have' always takes a past participle (V3) and also, 'humans' is a plural noun so it would take a plural verb and not a singular verb 'determines.' So 'fought' is apt in the second place in the correct order and 'determines' in the third place.

So, the correct order of the words is **ACBD**.

The correct sentence is: Since time immemorial, humans have fought over land, a scarce resource that determines where people can grow food, build houses and live out their days on planet Earth.

Hence, option (b) is correct.

75. **Answer: (A)**

The person last word is 'ever', which means that this is the poorest the team have ever performed, we need to use the superlative form. Therefore the correct option is 'worst' and not 'worse'.

76. **Answer: (E)**

The highlighted part of the sentence is incorrect. When two subjects are joined using 'along with', the verb should be used according to the first subject. In the given sentence, the verb should be used according to the singular noun 'misuse'. Therefore, according to the subject-verb agreement rule, the base verb 'create' cannot be used here. It should be replaced with the singular form 'creates'. So, options (b) and (c) are incorrect. Also, the use of the preposition 'to' is incorrect. When we create something for someone, we always use the preposition 'for'.

Therefore, among the given options, only the phrase in option (e) fits in the given sentence.

Hence, option (e) is the correct answer.

The correct sentence is: The misuse of antimicrobials, along with other microbial stressors, **creates** favourable conditions for microorganisms.

77. **Answer: (D)**

An adjective is required in the first blank to describe the noun 'self-examination'. 'Raised suspicions' in the latter part of the sentence suggests that a negative adjective is required here. And a verb is required in the second blank, to be qualified by the adverb 'mainly' and depict the past action, in past form ('was difficult' and 'raised suspicions suggests' this).

'Obsessive' means thinking too much about one particular person or thing; behaving in a way that shows this, but 'nadir' is a noun which means the worst moment of a particular situation, so it has to be eliminated.

'Menace' and 'penance' is a group of nouns which mean 'a danger or threat' and 'a punishment that you give yourself to show you are sorry for doing something wrong', respectively, so it will be eliminated.

'Prejudiced' means not liking or trusting somebody/something for no other reason than his/her/its race, religion or sex and 'quell' means to end something. But the use of quell is grammatically incorrect; thus, it will be eliminated.

'Unpleasant' means causing you to have a bad feeling. 'Mainly avoided in life' makes a meaningful sentence. The sentence suggests that the self-examination raised feeling of suspicions as it was unpleasant.

'Shrewd' means able to make good decisions because you understand a situation well. 'Resurrected' means to bring back something that has not been used or has not existed for a long time. But in the given sentence nothing about coming back to life is mentioned so it is contextually incorrect.

Hence, option (d) is correct.

78. **Answer: (A)**

In A, replace the verb NEEDED with the noun NEED as we need a noun to be modified by the adjective CRITICAL. The sentence talks about the urgent requirement to fast-track early diagnosis and management of mental illness. Thus, A is the right answer.

79. **Answer: (C)**

In C, replace THAT with AS. While we use SUCH THAT to show purpose or result, we use SUCH AS to give examples. The sentence lists the goods and

services which are included in the Consumer Price Index, therefore SUCH AS is more appropriate here. Thus, C is the right answer.

80. **Answer: (E)**

The sentence is grammatically correct and meaningful.

Hence, option (e) is correct.

81. **Answer: (B)**

'Because' is used to introduce clauses of cause and reason. The phrase 'the reason is because' is redundant. We often hear people say things like, "the reason there's a hole in the screen door is because I tripped over the cat on my way out." The phrase "is because" should be "is that." If you wanted to use "because," the sentence should be phrased, "There's a hole in the screen door because I tripped over the cat". In the given sentence, we cannot rectify the sentence only by making changes in part A. We can rectify the sentence by replacing 'is because' with 'is that'. So, part B has an error.

Hence, option (b) is the correct answer.

The correct sentence is: The reason to avoid spicy and deep-fried foods **is that** they will leave you thirsty in addition to making you feel bloated and heavy.

82. **Answer: (C)**

The sentence tells us how Japan has been struggling (grappling) with an extreme (record) spread of avian flu in recent months, putting pressure (strain) on the supply of poultry. OUTRAGE means deep insult or offence and is inappropriate here. It should be replaced with OUTBREAK (a sudden occurrence of something unwelcome). Thus, C is the right answer.

83. **Answer: (D)**

'Discrete' is an adjective that means individually separate and distinct. In sentences II and III, the word 'discrete' is used correctly both in terms of grammar and context. But in sentence I, an adverb ('discretely') is required here to qualify the verb ('shop'). Therefore, II and III are correct.

Hence, option (d) is a suitable choice.

84. **Answer: (E)**

'A; must be the introductory phrase of the sentence. 'A' ends with "finding" which connects with "out" in 'B'; the phrase "finding out" means discovering or realising. CE forms a pair; 'C' ends with "associated" which connects with the preposition "with" in 'E'. ED forms a pair; E begins to draw a parallel between the brain activity that happens when one realises something good is about to happen and when something good actually happens. Thus, the correct sentence is "Research has shown that finding out something good is going to happen causes positive emotions and is associated with activity in similar brain areas as when something good actually happens." Hence, option (e) is the correct answer.

85. **Answer: (D)**

A is first as it is the aptest independent clause. C is next as it explains what happened 'millions of years ago'. D is next as it tells where 'volcanoes deposited minerals'. B comes after D as it tells what happened later [water leaching through rocks]. E is the final clause as it concludes how the leaching water led to formation of lakes and water bodies.

The correct order should be: ACDBE.

Hence, the correct answer is option (d).

86. **Answer: (B)**

The parts of the sentence speak about the time duration for advance booking of train tickets. The part that should come first in the final order is part **B** as it describes the subject of the sentence 'train ticket reservation'. Part **B** should be followed by part **C** as it describes what reservations are required. So, part **C** comes second in the final order. '120' in part **D** can only be followed by a countable noun, i.e., 'days' in part **A**. So, **A** follows **D**. Also, **A** ends with the adjective 'actual' which aptly modifies the noun 'date' in part **E**. So, **E** follows **A**. Therefore, the final order of the parts of the sentence is **BCDAE**.

Hence, the correct answer is option (b).

87. **Answer: (A)**

'Geysers' are a place where naturally hot water comes out of the ground. 'Ablution' means the act of washing yourself clean. 'Capsize' means to turn over in the water. The sentence talks about the 'hot springs' so 'geysers' is the right word to describe them. 'Lakes' are just other water bodies and do not necessarily have hot water.

Also, the passage later discusses 'geysers', so it is the most appropriate word for the blank (A).

Hence, option (a) is correct.

88. **Answer: (D)**

'Coaches' is a plural countable noun so a plural verb should be used here. Other than 'give' and 'reflect' all the options will get eliminated. The coaches usually provide the people a tour of everything so 'give' is the correct word for the blank.

Hence, option (d) is correct.

89. **Answer: (B)**

A trail is usually a path, track or unpaved lane or road. 'Meander' means to walk or travel slowly or without any definite direction. 'Plod' means to walk slowly and in a heavy or tired way. 'Amble' means to walk at a slow relaxed speed. A noun is required here to be qualified by the given adjective 'natural'. So, 'trails' is the right word to describe this.

Hence, option (b) is correct.

90. **Answer: (E)**

'Arrangements' cannot be used here as 'a/an' article (which is used only with singular nouns) is used before the blank. 'Schedule' is a noun which means a plan of things that will happen or of work that must be done. 'To see the exact time', used after the blank shows that people require planning and 'schedule' will be a right choice.

Hence, option (e) is correct.

91. **Answer: (D)**

'Grasp' means to take hold of somebody/something suddenly and firmly. 'Sight' is a noun which means the ability to see, but a verb is required to show the action that people like. 'Perceive' is to realise or recognise something. 'Discern' means to understand or notice something with difficulty. According to the meaning of the sentence, only 'watch' and 'see' can fit here. All the other words do not fit in the given context.

Hence, option (d) is correct.

92. **Answer: (C)**

'Submerge' means to go or make something go under water. 'Spawned' means release or deposit eggs. 'Caused' means to make something happen. 'Procreated' means to reproduce. As per the passage, the sentence is given in passive voice. So, the past participle form of verb (V3) is required here. Therefore, options (a) and (d) will be eliminated. Among the remaining options, only option (c) justifies how the colour of the water changes.

Hence, option (c) is correct.

93. **Answer: (B)**

'Solitary' is an adjective that means 'someone or something that is single, isolated or alone.'

'Lonesome' means 'all alone'.

We see that among the options, 'lonesome' is synonymous to the given word and hence option (b) should be the answer here. Other words are not synonymous with respect to the word 'solitary'.

94. **Answer: (B)**

'Foraging' is a verb and it means 'search/hunt (a place) so as to obtain food'.

'Invigorating' means 'to give strength or energy to something/someone'.

We see that among the options, 'protecting' is the antonym to the given word and hence option (b) should be the answer here. Other words are unrelated with respect to the given word.

95. **Answer: (B)**

The third paragraph of the given passage talks about honey bees and their capability of changing the volume of their brain. Hence option (b) is the correct answer.

96. **Answer: (B)**

The first sentence of the third paragraph talks about the six to eight weeks taken by isolated gamergate ants to revert back to worker physiology. Therefore, option (b) is the right answer.

97. **Answer: (C)**

According to the passage, option (c) is not true. In last few sentences of the first paragraph, it is clearly mentioned that the contender ants expand their ovaries. Therefore, option (c) is the right answer. Other options are correct as per the first paragraph of the passage.

98. **Answer: (C)**

The second paragraph clearly mentions that about the transformer ants also being called as gamergates. Hence option (c) is the right answer.

99. **Answer: (D)**

The last paragraph of the given passage talks about gamergate that need brain shrinkage so that the ants can divert additional resources to egg production.

Hence option (d) is the right answer.

100. **Answer: (B)**

The fourth paragraph of the given passage mentions about 'crown dominance lasting up to 40 days'. From the above line it is clear that crown refers to queen ant. Hence option (b) is the right answer.