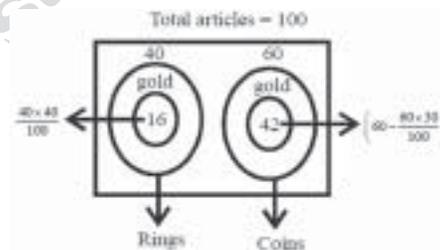


Key with Explanation

1. **D**
Language comes within culture. So cultural difference implies linguistic as well.
2. **D**
All players of marketing have one and only aim-sales. Other aims can be part of this ultimate goal.
3. **A**
The passage says that since the mid-80s, the focus has been on forming budgets or economic policies by keeping the middle class in mind, thus option (a) clearly seems right. Option (b) states that the middle class was 'deprived', but we cannot be certain of that from the information given in the passage. We don't know the state of the middle class before the mid 80s. Hence, option (a) is correct.
4. **A**
Refer to the argument-it deals with the idea of providing the 'meaning of life' despite our limited understanding. Hence only option (a) can be a valid conclusion. Option (b) and (d) can be eliminated as they contain elements like 'uniqueness' and 'foundation of life' which are not discussed in the argument. Option (c) can also be eliminated as it deals with the transient nature of life which is not the core idea.
5. **A**
Taking care of a young child is often left to an older sibling by working mothers. Public health authorities do not find a mention in the passage hence (a) is correct.
6. **C**
The argument boils down to the following, including the unstated assumption provided by (c):
Premise : Students get enough reading practice already.
Unstated assumption (c): The reading program provides only reading practice.
Conclusion: The reading program is unnecessary.
(a) is not a necessary assumption. The argument is not concerned with whether improved reading skills would help the students learn history and science. Rather, the argument involves whether the new program would help improve reading skills.
(b) is not a necessary assumption. The argument is that no additional reading practice is

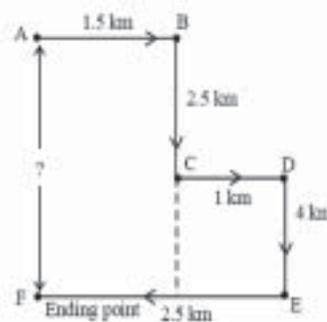
needed, regardless of which program provides that practice.
(d) is not a necessary assumption. The argument does not aim to compare the importance of one discipline over another.

7. **A**
Clearly, (a) is a valid conclusion.
8. **D**
Clearly (d) refuted the arguments in the statement.
9. **A**
Neeta is the youngest of all sisters.
10. **B**
Sarita is the eldest of all sisters.
11. **C**



Total of gold articles = 42 + 16 = 58% of gold articles
= 58/100 x 100 = 58%

12. **D**
If the seven integers all fall in the span from 1 to 10, then the highest possible value of C will occur if these seven letters represent the integers from 4-10. In this case, C = 8. The smallest possible value of D will occur. If the seven letters represent the integers from 1 to 7. So, in this case, D = 3 and (8 - 3) = 5.
13. **A**



$$AF = DE + CB$$

$$AF = 4 + 2.5$$

$$AF = 6.5 \text{ kms}$$

14. C

Let side of a square be x .

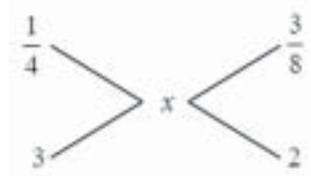
∴ Average speed (n) = $\frac{\text{Total Distance}}{\text{Total Time}}$

$$= \frac{(x+x+x+x)}{\frac{x}{v} + \frac{x}{2v} + \frac{x}{3v} + \frac{x}{4v}} = \frac{4x}{1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4}} = \frac{48x}{25} = 1.92x$$

Average speed lies between $v < u < 2v$

15. D

By alligation method,



$$\therefore \frac{\frac{3}{8} - x}{x - \frac{1}{4}} = \frac{3}{2}$$

$$\Rightarrow \frac{3}{4} - 2x = 3x - \frac{3}{4}$$

$$\Rightarrow 5x = \frac{6}{4} = \frac{3}{2}$$

$$\therefore x = \frac{3}{10}$$

16. C

Let the present age of Meenu = x

and the present age of Anand = y

\Rightarrow Riya's age = $(x - 18)$ and Diya's age = $(y - 27)$

Sum of ages of Riya and Diya

$$\Rightarrow (x - 18) + (y - 27) = x$$

$$\Rightarrow y = 45$$

$$\Rightarrow \text{Diya's age} = 45 - 27 = 18 \text{ yr}$$

Sum of ages of the members

$$\Rightarrow x + 45 + 18 + (x - 18) = 117$$

$$\Rightarrow 2x = 72$$

$$\Rightarrow x = 36$$

$$\Rightarrow \text{Meenu's age} = 36 \text{ yr and Riya's age} = 36 - 18 = 18 \text{ yr}$$

17. D

Let the number of tigers be x and the number of peacocks be y , then:

$$x + y = 60 \text{ and } 4x + 2y = 200$$

$$\text{So, } x = 40 \text{ and } y = 20$$

18. A

Let the power of the terms be x and y .

$$6x - 11y = 95$$

$$\text{Put } x = 3, y = 2 \text{ (By trial and error)}$$

$$63 - 112 = 95$$

Hence satisfied.

$$\text{Score of team A} = 63 = 216$$

19. A

The statement indirectly asserts that the decision makers can work effectively to eliminate poverty, only if they get to know the basic problems afflicting the poor people through interaction with them. So, only (a) follows.

20. D

The statement talks of 'increasing demands' of consumers. It does not imply that consumers were indifferent to price and quality earlier. So, statement I is not implicit. Besides, the statement I mentions that increasing competitiveness has made available to consumers a wide variety of options which had led to their requirements and budget. They are thus getting better 'value for their money'. So, statement II is also not implicit.

21. A

The idea of the passage is that, the idea of private property, within limits, can function for the general advantage. Option (a) would weaken the argument as it talks about equitable growth and says that private property brings disparity.

22. A

Paragraph is saying that mental illness of patients improve more and more if therapist-patient relationship continues which patients in-

interpret good. They don't care much about large amounts they pay to therapists ever many years, as relationships reduce to eight percent after termination of formal paid visits.

23. C

(c) is the most appropriate option. Option (a) doesn't talk about the expanding commercial-industrial economy. (b) does not explain the effect of the struggles i.e. 'a new conflict', (d) is not correct as it talks specifically only of raw materials for expanding economy. Further it says local communities are creating new type of conflict, which is wrong.

24. D

The passage revolves around the problem of habitat fragmentation which poses a serious threat to biodiversity conservation.

25. A

When forest lands get fragmented human activities start on the edges of these fragmented lands which results in degradation of entire forests. Therefore continuity of the forested landscapes and corridors should be maintained.

26. C

China has outdone the India in respect of development of urban infrastructure, activities allied infrastructure and Agriculture.

27. C

The greater prevalence of farm mechanization is the advantage that holds the India over China.

28. C

The threat posed against the implementation of subsidies, actually these hamper the efficient resource utilization and the subsidies distort the market.

29. A

Let the number of questions in examination = x
By given condition, 40% of x = 10

$$\Rightarrow \frac{x \times 40}{100} = 10$$

$$\therefore x = \frac{1000}{40} = 25$$

30. A

If there are two changes of x % and y %, then net change = $x + y + \frac{xy}{100}$

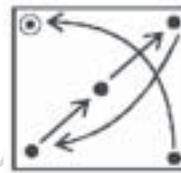
$$\text{then net change} = x + y + \frac{xy}{100}$$

$$\text{Net change} = 10 - 10 + \frac{(10)(-10)}{100} = -1\%$$

$$\text{Amount of sales in 1995} = 8 \left(1 - \frac{1}{100} \right) = 7.92$$

31. D

In each step, the elements move in the sequence.



The triangle rotates 90° CW in each step; the arrow rotates 90° CW and 90° ACW alternately and the circle changes colour (turns black if initially white and vice versa) in each step. Also, in each step, the element that reaches the lower-right corner gets vertically inverted and the elements that reaches the upper-left corner, gets replaced by a new elements.

32. A

$$594 / 198 = 3$$

$$198 / 66 = 3$$

$$66 / x = 3$$

$$x = 22$$

33. B

This is a simple alternating addition and subtraction series. The first series begins with 8 and adds 3; the second begins with 43 and subtracts 2.

34. D

35. C

Let present age of X = x years

Present age of Y = (x - 3) years

3 years ago, age of X = (x - 3) years

Age of Y = (x - 6) years

According to the question,

$$x - 3 = 2(x - 6)$$

$$\Rightarrow x - 3 = 2x - 12$$

$$\Rightarrow 12 - 3 = 2x - x$$

$$x = 9 \text{ years}$$

36. D

Let total no. of questions be x.

Now, Right questions = 12 = 60% of x.

$$0.6x = 12$$

$$x = 20$$

Sol. (Q. 37)

From information I and IV, we can deduce that Shatabdi is the first train and Rajdhani is the second train to arrive. From III, Simadri should be the third or fourth or fifth train to arrive. If Simadri is the third train, then Ratnachel should be the fourth. Fifth and sixth would be either Godavari or Gautami. But Godavari and Gautami cannot come immediately after one another as both their names start with the same alphabet 'G'. So, Simadri cannot be the third train. Also, Simadri cannot be the fifth train to arrive as then Ratnachel would be the third train to arrive as fourth and sixth will be either Godavari or Gautami and both Rajdhani and Ratnachel cannot arrive immediately one after the other.

So, Simadri is the fourth train to arrive and third and fifth are either

Godavari or Gautami. Ratnachel is the last train to arrive at Station 'R'.

So, the order is

1. Shatabdi
2. Rajdhani
3. Godavari / Gautami
4. Simadri
5. Gautami / Godavari
6. Ratnachel

37. **D**

Ratnachel is the last train to arrive at the station.

38. **C**

The government cannot sell off public sector units just to mop up funds for development. Besides, if it does so, these units shall be handed over to private companies which are fully equipped to run these units effectively. So, neither I nor II holds strong. Privatization shall surely ensure better services, but private companies adopt hire and fire policy and they were free to terminate the services of any employee as and when they wish to. Thus, both III and IV hold strong.

39. **A**

All honest persons are truthful + All truthful persons are kind = A + A = All honest persons are kind. So, conclusion I follows.

Some bureaucrats are honest + All honest persons are truthful = I + A = I - Some bureaucrats are truthful + All conclusion II follows.

Again, Some bureaucrats are truthful so, + All truthful persons are kind = I + A = I = Some bureaucrats are kind. So, conclusion III follows. Hence, all three follow.

40. **B**

Clearly, the statement is made to impress the usefulness of the book. It does not mention the desire of a layman. So, I is not implicit. Also, the book is intended to guide one when a teacher is not available. So, both II and III are implicit.

41. **C**

The airline officials assert that the increase of the number of reported accidents is caused by an increase in the number of new sources covering airline accidents and not by an increase in the number of accidents. The above assertion weakens if (a) is true. There might be a situation when in some peak travel months a lot of accidents have occurred and the media has reported the same because of which the number of reported accidents have increased.

42. **C**

is the only correct choice, which can be inferred from the passage that high bloodthirstiness goes hand in hand with poverty and poor educational performance.

43. **C**

The passage explicitly talks about the issue of equity, inclusion and exclusion, religious identity in major educational curriculum. This causes a generated public debate. But the passage does not talk about the debate which includes the making curriculum student-centered and using teaching community as an agency to bring change.

44. **C**

The passage clearly mentions the absence of focus among students which ultimately hampers the critical thinking ability of students.

45. **C**

In the passage it is cleared that the main focus in 21st century is the revamping of the text material in curriculum frame work.

46. **B**

Education always plays a prominent role in national development, its role in social transformation and mobilisation. So, the support of well-framed curriculum is one of the factors to facilitate the desired transformation.

47. **A**

Angle traced by the hour hand in 12 h = 360°

Angle traced by the hour hand in 4 h = $(360 \times \frac{4}{12}) = 120^\circ$.

48. B

Let Q join for x month.

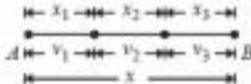
$$\begin{aligned} \therefore \text{Ratio of capital} &= 2525 \times 12 : 1200 \times x \\ &= 2525 : 100x = 101 : 4x \\ \therefore P\text{'s profit} &= \frac{101}{101+4x} \times 1644 \\ \Rightarrow 1212 &= \frac{101 \times 1644}{101+4x} \\ \Rightarrow \frac{1212}{101 \times 1644} &= \frac{1}{101+4x} \\ \Rightarrow \frac{1}{137} &= \frac{1}{101+4x} \\ \Rightarrow 101+4x &= 137 \Rightarrow 4x=36 \\ \therefore x &= 9 \end{aligned}$$

Q joined for 9 month i.e., he joined after 3 months.

49. A

Let total distance = x km.

Average speed = total distance / total time



$$\begin{aligned} \frac{x}{t_1+t_2+t_3} &= \frac{x}{\frac{x_1}{v_1} + \frac{x_2}{v_2} + \frac{x_3}{v_3}} \\ x_1 &= \frac{x}{3}, x_2 = \frac{x}{3}, x_3 = \frac{x}{3} \\ &= \frac{x}{3 \left(\frac{1}{10} + \frac{1}{20} + \frac{1}{60} \right)} \\ &= \frac{3}{\left(\frac{6+3+1}{60} \right)} = \frac{3 \times 60}{10} = 18 \text{ km/h} \end{aligned}$$

50. B

$$\begin{aligned} \text{Cost Price} &= \frac{\text{Selling price}}{1 - \frac{\text{Loss}\%}{100}} = \frac{136}{1 - \frac{15}{100}} \\ &= \frac{136 \times 100}{85} = 160 \\ \text{Selling price (x)} &= \frac{160 \times (100 + 15)}{100} = \frac{160 \times 115}{100} \\ &= 184 \end{aligned}$$

Hence, option (b) is correct because $180 < x < 190$.

51. C

Let he had taken x wickets before this inning, then

$$\begin{aligned} \frac{[11.5(x) + 22]}{(x+5)} &= 11 \\ \Rightarrow 0.5x &= 33 \\ \Rightarrow x &= 66 \end{aligned}$$

52. D

There can be three cases:

Ram solves and Shyam doesnot solve OR Ram does not solve and Shyam solves OR Ram solves & Shyam solves.

Hence, the probability that the problem is solved is

$$\left(\frac{1}{2}\right)\left(\frac{1}{3}\right) + \left(\frac{1}{2}\right)\left(\frac{2}{3}\right) + \left(\frac{1}{2}\right)\left(\frac{2}{3}\right) = \frac{1}{6} + \frac{2}{6} + \frac{2}{6} = \frac{5}{6}$$

53. C

Total number of candidates = 100%

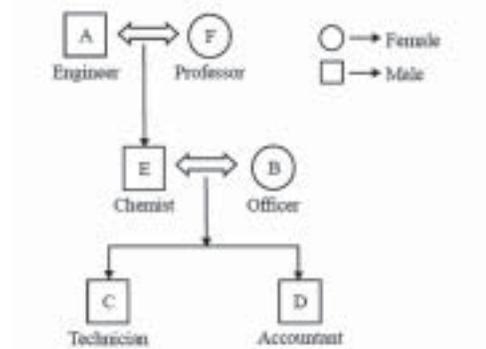


Percentage of candidates passed in both the subjects

$$= \{100 - (25 + 17 + 35)\}\% = 23\%$$

Sol. (Q. 54)

From the given information, the relation chart is as follows.



54. A

E is the father of the accountant, D.

55. A

Let number of girls = x and the number of boys = y
45 games in which both the players were girls

$$\Rightarrow {}^x C_2 = 45$$

$$\frac{x!}{2!(x-2)!} = x(x-1) = 90 \quad \therefore x = 10$$

190 games, where both the players were boys.

$${}^y C_2 = 190 \Rightarrow y(y-1) = 380 \quad \therefore y = 20$$

Hence the total number of games in which one player was a boy and the other was a girl = $10 \times 20 = 200$

56. A

Task 1 can not be assigned to either person 1 or 2 i.e. there are 4 options.

Task 2 can be assigned to 3 or 4. So, there are only 2 options for task 2.

So required no. of ways = 2 options for task 2 \times 3 options for task 1 \times 4 options for task 3 \times 3 options for task 4 \times 2 options for task 5 \times 1 option for task 6.

$$\Rightarrow 2 \times 3 \times 4 \times 3 \times 2 \times 1 = 144$$

Solutions (Q. 57)

Name/Qualities	Kush	Ganesh	Hari	Ram	Jivan
Intelligent	✓	✓	✓	-	-
Hardworking	✓	-	-	✓	✓
Honest	-	-	✓	✓	✓
Ambitious	✓	✓	-	-	✓

57. C

Hari is neither hardworking nor ambitious.

58. C

Suppose the vessel initially contains 11 L of liquid.

Let, x L of this liquid be replaced with water.

Quantity of water in new mixture

$$= \left(4 - \frac{4x}{11} + x\right)L$$

$$\text{Quantity of syrup in new mixture} = \left(7 - \frac{7x}{11}\right)L$$

$$\frac{45 \times x}{100} = 270$$

$$\Rightarrow \frac{14x}{11} = 3$$

$$\Rightarrow x = \frac{33}{14}$$

$$\text{So, part of the mixture replaced} = \left(\frac{33}{14} \times \frac{1}{11}\right) = \frac{3}{14}$$

59. C

Let the cost price of an article = ` x

Selling price of an article = ` 96

According to the question,

$$\frac{x - 96}{x} \times 100 = \frac{1}{4} \times 100 \Rightarrow 400x - 96 \times 400 = x^2$$

$$\Rightarrow x^2 - 400x + 38400 = 0$$

$$\Rightarrow x^2 - 160x - 240x + 38400 = 0$$

$$\Rightarrow x(x - 160x) - 240(x - 160) = 0$$

$$\Rightarrow (x - 160)(x - 240) = 0$$

$$\Rightarrow x = 160 \text{ or } 240$$

Hence, the cost price of an article is ` 160 or ` 240.

60. A

% of students failed in paper I = $100 - 70 = 30\%$

% of students failed in paper II = $100 - 60 = 40\%$

Total % of students who failed = $30 + 40 - 15 = 55\%$

Total % of students who passed in both papers

$$100 - 55 = 45\%$$

Let, total number of students be x.

Now, 45% of x = 270

$$\frac{45 \times x}{100} = 270$$

$$x = 600$$

61. D

In the case of the objection that the weaklings far exceed strong people, the author comes up with the response that the weaklings will be miserable no matter what happens and that the strong would be frustrated if the weaklings are destroyed.

62. A

The role of technology is not talked about in the passage. So, if the effect of technology on environment is taken into account then the author's discussion would be greatly influenced.

63. C
 Since majority of the patients have responded well to the drug one wonders how some of them have witnessed deterioration in their condition.

64. D

65. C
 Option (d) is not analogous from any angle. Point of Chinese manufacturing is also not logical in option (b). Option (c) exhibits the analogous relationship. If number of words is high, the text will not be read and when an advertisement text is not read, the product is not sold.

Hence, the correct answer is Option (c). Note the relationship is inverse in nature.

66. B

Children are not being affected by malaria. This implies they are already resistant to the disease. Why then should we need the supplements?

67. C

Part filled by pipe A in 1 min = $1/10$
 Part empty by pipe B in 1 min = $1/15$

$$\therefore \text{Total tank filled in minutes} = \frac{1}{10} - \frac{1}{15} = \frac{3-2}{30} = \frac{1}{30}$$

Hence, the tank will be filled in 30 min.

68. D

Total number of ways in which 9 balls occupy any of the 6 squares =

$$9C6 = 84$$

Number of ways in which one row is not filled = 3

\Rightarrow Number of ways in which at least one ball occupies each row = $84 - 3 = 81$

69. A

On the first attempt four coins are overturned. Now, six coins are left.

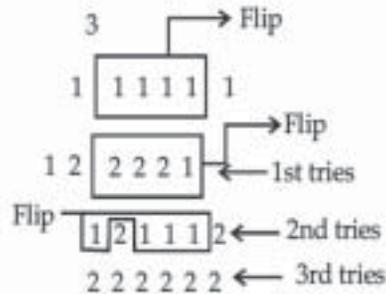
In the next turn, four more are overturned. Now only two would be left. We take one more from the left over two coins and any three from the previously turned ones. Finally, the leftover coin and the three coins from the presiding step which have already been turned twice can be overturned. Thus, in four attempts, one can complete the process.

70. C

2 Women can occupy 2 chairs out of the first four chairs in $4P2$ ways. 3 men can be arranged in the remaining 6 chairs in $6P3$ ways.

Hence, total no. of ways = $4P2 \times 6P3 = 1440$

71. A



72. C

Two hands of clock are on one above between 8 to 9.

12 to 8 \Rightarrow 40 min

$$40 \text{ min} \Rightarrow \frac{60}{55} \times 40 = \frac{480}{11} \text{ min past 8.}$$

Two hands of clock are on one above between 9 to 10.

12 to 9 \Rightarrow 45 min

$$45 \text{ min} \Rightarrow \frac{60}{55} \times 45 = \frac{540}{11} \text{ min past 9.}$$

So two hands being one above the other =

$$60 - \frac{480}{11} + \frac{540}{11} = \frac{660 + 540 - 480}{11} = \frac{720}{11} = 65.4$$

73. A

Distance travelled = Area under the velocity - Time graph.

Here, Area under the curve A is smallest, so car 'A' will travel the least distance.

74. B

75. B

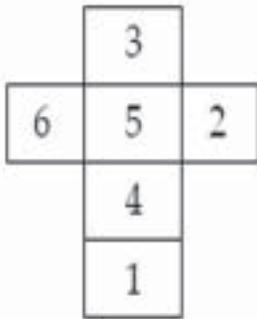
The workers in the organized sector are not being talked about in the statement. So, I does not follow. It is mentioned that some workers in the unorganized sector are engaged in sundry jobs. This means that they have fixed income. So, II follows.

76. A

All graduates are students + All students are laborious
 = A + A = A = All graduates are laborious, which onconversion gives "Some laborious are graduates." So, Conclusion I follows. But, the last two statements of the arguments are of I type and do not lead to any results. So, only Conclusion I follows.

77. A

When we opened the cube



Now, (A) and (B), two possible number can exist onto faces are 2 and 3.

78. D

From the graph, it is clear that profit earned per hectare for potatoes is more from O to A and it is more for corn from A to B. So, growing of potatoes is more profitable from O to A and growing of corn is more profitable from A to B. Similarly, growing of corn is less profitable between O and A and growing of potatoes are less profitable between A and B.

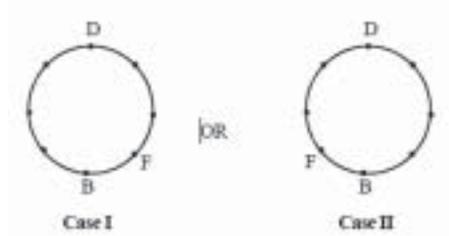
79. A

The cost of Food A is ` 1.80 hundred grams or 1.8paise a gram.

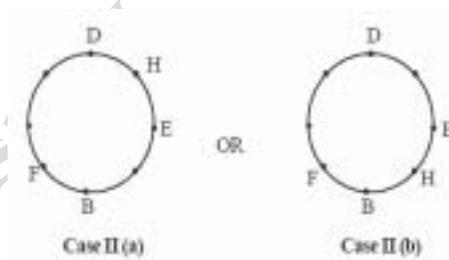
So, x gram of A + y gram of B + z gram of C will cost = $(1.8x + 3y + 2.75z)$ paisa

Sol. (Q. 80)

As it is given that B is the neighbour of F and fourth to the left of D. So, the arrangement is.

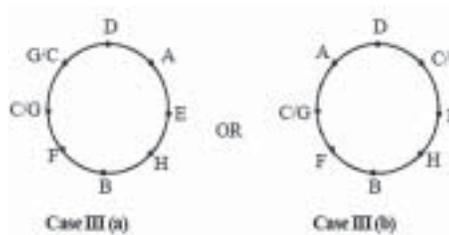


Now, E is third to the right of F. This information rejects the Case I. Also, it is given that E is the neighbour of H and third to the right of F, so the following two possibilities are there- Case II (a) Case II (b)



Now, from the information that D is the neighbour of A but not of H. Hence, Case II (a) can be rejected. So, the following two possibilities are there

Case III (a) Case III (b)



Also, it is given that, C is neither the neighbor of A nor of G, so

Case III (a) can be rejected. Hence, the final seating arrangement will be as follows.

80. D