

Key with Explanation

1. **B**  
India has emerged as a new key player as far as dealing with climate change issues in concerned. Moreover a new era of economic growth and development is sought while dealing with domestic issues related to climate changes such as use of biofuels, clean energy sector revival and capitulation of solar energy sector.
2. **C**  
Cleanliness should be everybody's endeavour. India can be a clean country only when people of all strata join together in this cleanliness drive and do not allow anyone to litter at public places, Joint endeavour and awareness, both are a must to deal with this problem.
3. **A**  
India is a one of the most favoured ground for tourists all over the world because of diversity of culture and beautiful but varied land scapes and gregarious tropical forests. Focus on this industry can certainly speed up economic development and bring prosperity to the country.
4. **B**  
In the last lines of the first paragraph, it is mentioned that a land transportation system would be substituted for marine transportation during part of the movement of goods between Europe and the 'Far East'. Marine refers to sea and hence water transportation is the correct answer.
5. **B**  
1 and 3 both options are correct. In the second paragraph it is mentioned that if a land-bridge system of shipment were deemed feasible it would open a completely new market for both United States steamship lines and railroads, which satisfy the statement 3.  
In this paragraph it is also mentioned that the land bridge will give the US East coast ships an opportunity to compete for the trade which American carriers could not get before and is occupied by foreign lines that carry all Far East - Europe freights which clearly says increase in foreign trade statement 1 is now satisfied but no mention of decrease in the amount of air freight.
6. **C**  
This question is developed from an idea implied in the passage. Option (c) is correct because it is argued that new jobs will be created for US

7. **A**  
railway workers and sailors but not for dock workers.  
In these type of questions, you may be asked about specific facts or details the author has stated explicitly in the passage. It is mentioned in the passage that land-bridge system would have a favourable effect on our balance of payment.
8. **B**  
Average annual income from 2000 to 2005  
 $= (12 + 20) / 2 = 32/2 = 16$  crore
9. **D**

Let the number of workers engaged in Manufacturing be  $x$ .

Then,  $\frac{90^\circ}{360^\circ} = 1980$  ... (i)

and  $\frac{120^\circ}{360^\circ} = x$  ... (ii)

On dividing Eq. (i) by Eq. (ii), we get

$$\frac{90^\circ}{120^\circ} = \frac{1980}{x}$$

$$\therefore x = \frac{1980 \times 120}{90} = 2640$$

10. **B**

From the given pie chart,

Number of Transportation workers =  $\frac{30^\circ}{360^\circ}$  of total workers  
and number of Professional workers =  $\frac{20^\circ}{360^\circ}$  of total workers

Thus, it is clear that there are 50% more Transportation workers than Professional workers.

So, if Professional workers = 20  
Then, Transportation workers = 30  
Given, the total income of Transportation workers = ₹ 23760000

Average income of Transportation workers  
 $= \frac{23760000}{30} = ₹ 792000$

and average income of Professional workers  
 $= 792000 \times \frac{150}{100}$   
 $= ₹ 1188000$

Hence, total income of Professional workers  
 $= 1188000 \times 20$   
 $= ₹ 23760000$

11. D

It is given that, P and Q can fill a tank in 36 min and 90 min.

LCM of 36 and 90 = 180

Now, filling rate of P and Q =  $180/36 + 180/90 = 5 + 2 = 7$  L / min

After all pipes are opened, then tank deposits water at the rate =  $7 \times 3 = 21$  L / min

It is given that, tank filled up in 45 min.

So, capacity of tank =  $45 \times 21 = 945$  L

12. A

Let the distance between the cities A and B be  $x$  km. Then,

$$x/60 + x/40 = 5$$

$$? x = 5 \times 120 / 5 = 120 \text{ km}$$

13. C

LCM of 10, 15, 20, 25 and 30

3	10, 15, 20, 25, 30
5	10, 5, 20, 25, 10
2	2, 1, 4, 5, 2
2	1, 1, 2, 5, 1
	1, 1, 1, 5, 1

$$= 3 \times 5 \times 2 \times 2 \times 5 = 300$$

After 300 s, bells toll together.

? Required time = 8:00 am + 300 s

= 8:00 am + 5 min = 8:05 am

14. C

It is given that, Sonu and Ramu can do a job in 60 and 40 days, respectively.

Thus, the ratio of their wages = 60 : 40 = 3 : 2

It is given that, their total earning is 450 .

? Share of Sonu =  $2 / (2 + 3) \times 450 = 180$

15. B

$$\text{Volume of the tank} = 22 \times 10 \times 7 = 1540 \text{ m}^3$$

Volume of water flowing per minute = Area of cross-section of the pipe  $\times$  Rate of flow of water per minute

$$= \frac{22}{7} \times \left(\frac{7}{100}\right)^2 \times 100 = 1.54 \text{ m}^3 / \text{min}$$

So, the tank will be filled in  $1540/1.54 = 1000$  min

16. B

According to the passage, the studies ignore allocation problems because of analysts' inherent preferences for the simple model of perfect completion. So, the correct answer is statement 2 i.e. option (b)

17. B

It is mentioned that transaction costs are the costs incurred when buying or selling assets takes place. In this case, the costs incurred in buying or selling financial instruments such as stocks. In other words, fees for purchasing stocks are transaction costs. Different fees for large and small investors are an appropriate examples of inequality in transaction costs. So, the correct answer is option (b). Maximum amount of loans, prices of goods and exchange rate are not transaction costs for financial instruments.

18. D

Analysts assume that all market participants have the same access to the market and the same opportunity to engage in transactions. So, the correct answer is statement 3

19. D

The passage mentions that the minority communities are a practical exception to the theoretical rule and also explains why this exception is typically omitted from consideration. Option (d) accurately describes the author's approach.

20. B

The author implies that political doctrines usually fail to generate artistic creativity because they are too rigidly controlled. Political influence on music is negative like censoring and disciplining the music which forbids any creativity

21. C

The author is arguing that musicians will not conform to any control over their creativity. Thus, they want to be intellectually free and emotionally honest. It does not mean that they could not be active in politics (apolitical)

22. D

The author does not find censorship surprising, nor does he take it seriously. He is resigned to attempts at censorship, although he does not believe it can inspire creativity.

23.

The possible routes between A and G (along with the respective costs in rupees) are given below  
ABEG :  $2 + 4 + 5 = 11$

$$\text{ADEG} : 6 + 3 + 5 = 14$$

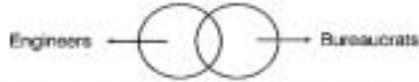
$$\text{ADG} : 6 + 6 = 12$$

$$\text{ADFG} : 6 + 2 + 4 = 12$$

$$\text{ACFG} : 3 + 5 + 4 = 12$$

Thus, the least cost is 11

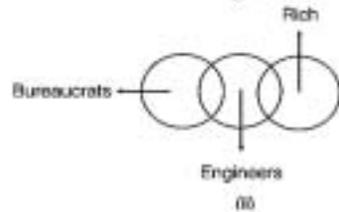
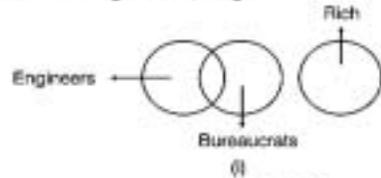
24. **D**  
 'Some engineers are bureaucrats' can be represented as



'No bureaucrat is rich' can be represented as



On combining the two, we get



So, in fig. (ii), it can be seen that 'there are some engineers who are rich'. So, option (a) is wrong. Also in both figures, it is clear that 'there are some bureaucrats, who are engineers.' So, option (b) is invalid. 'Some engineers are rich' is valid from fig. (ii) but not from fig. (i). Hence, option (c) is not a valid conclusion. Option (d) is valid in both figures.

25. **C**  
 This answer is implied by the statement that redistribution is needed so that people in emerging nations can have proper medical care. Options (a) and (d) are not mentioned in the passage. Option (b) is also incorrect as the passage indicates the distribution of medicine, not its production.
26. Let the number of sweets initially with the father be  $x$ .

According to the question,

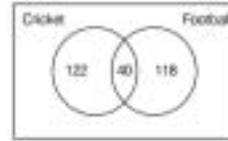
$$\frac{x}{3} = 3\left(\frac{x}{3} - 12\right) = \frac{x}{3} = x - 36$$

$$\Rightarrow x - \frac{x}{3} = 36 = \frac{2x}{3} = 36$$

$$\therefore x = 54$$

Then, number of sweets each son initially =  $x/3$

27. **B**



Total number of members = 240 (given)  
 But 40 members are playing both the games.  
 People who play atleast one of the two games  
 = 240 - 40 = 200

28. **C**

$$\text{Total loss in percentage} = x + y - \frac{xy}{100}$$

$$= 10 + 10 - \frac{10 \times 10}{100} = 1\%$$

Now, SP of two articles =  $2 \times 13860 = ₹ 27720$

and CP of two articles =  $27720 \times \frac{100}{99} = ₹ 28000$

$\therefore$  Loss =  $28000 - 27720 = ₹ 280$

29. **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.

30. **D**

Triangle is present in middle and above while circle is changing anti-clockwise. The lines are also changing anti-clockwise. Hence, option (d) is correct.

31. **D**

This theme begins in line one and continues throughout the passage. Colonialism was hated because it assumed the colonised subjects inferior and impose its own culture.

32. **A**

The fact that children were taught very little about their own culture and history was due to cultural colonialism. It was because of the colonised labelled colonial policy, 'cultural asphyxia'.

33. **B**

Clearly, the main subject of the passage is nationalism.

34. **D**

Statements 1, 2 and 3 are mentioned in the passage. Cultural nationalism is the seed to revive their identity from the clutches of imperial culture.

35. **A**

The number of girls are 3

It is given that, A sits on bench 1 and G sits on

bench 3. i.e.  
 Bench 1 ? A  
 Bench 2 ?  
 Bench 3 ? G  
 F is a boy student and sits with B only. So, they must sit on  
 bench 2 and B should be a girl.

Bench 1 ? Ab  
 Bench 2 ? Fb, Bg  
 Bench 3 ? G

where, b ? boy, g ? girl  
 C is a girl and does not sit with A, E and D. So, she must sit on bench 3. Also, E is the brother of C, which means E is a male and he must sit on bench 1. Also, D sits on bench 1 and D should be a girl as atleast one girl and one boy should be on each bench. So, G should also be a boy.  
 Hence,

Bench 1 ? Ab, Eb, Dg  
 Bench 2 ? Fb, Bg  
 Bench 3 ? Gb, Cg

36. C  
 G sits with C.

37. D  
 There may be two boys on bench 1 only.

38. B

The information given in the question can be represented as

Number of officers =  $450 \times \frac{4}{(4+5)} = 450 \times \frac{4}{9} = 200$

Number of clerks =  $(450 - 200) = 250$

Officers in computer skills =  $\frac{10}{100} \times 200 = 20$

Clerks in HRM =  $\frac{16}{100} \times 250 = 40 =$  Officers in financial skills

Clerks in HRM = 50% of officers in HRM and financial skills both

So, officers in HRM and financial skills both =  $40 \times \frac{100}{50} = 80$

Total employees taking training in all three = 6% of 450

=  $\frac{6}{100} \times 450 = 27$

Officers in all three =  $\frac{2}{3} \times 27 = 18$

So, clerks in all three =  $(27 - 18) = 9$

Employees taking training in HRM and computer skills both = 10% of 450 =  $\frac{10}{100} \times 450 = 45$

Employees in HRM and computer skills both = 5 x Clerks in computer skills and financial skills both

So, clerks in computer skills and financial skills both =  $\frac{45}{5} = 9$

Clerks in HRM and computer skills both = 10% of 250 = 25

Officers only in HRM = 25% of clerks only in HRM

=  $\frac{25}{100} \times 40 = 10$

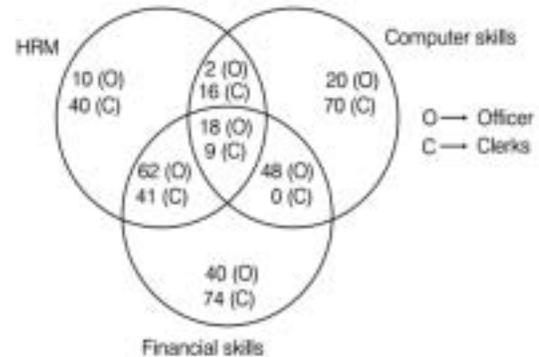
Clerks in HRM and financial skills both = 20% of 250 = 50

Number of clerks taking training in computer skills but not in HRM = 70

39. (c)  
 Number of employees taking training in financial skills but not in

$$\text{HRM} = 74 + 40 + 48 = 162$$

40. A



Required Percentage

$$\frac{\text{Officers taking training in computer skills but not in financial skills}}{\text{Total number of officers}} \times 100$$

$$= \frac{(20 + 2)}{200} \times 100 = 11\%$$

41. A  
 3 women and 3 men can be selected in the following ways

	Manish's relatives (4 women and 3 men)	Manish's wife's relatives (4 men and 3 women)	Number of ways	Value
Case I	3 men	3 women	${}^3C_3 \times {}^3C_3$	1
Case II	3 women	3 men	${}^4C_3 \times {}^4C_3$	16
Case III	2 men, 1 woman	2 women, 1 man	${}^4C_1 \times {}^3C_2 \times {}^3C_2 \times {}^4C_1$	144
Case IV	2 women, 1 man	2 men, 1 woman	${}^4C_2 \times {}^3C_1 \times {}^4C_2 \times {}^3C_1$	324

?Total number of ways = 485

42. C  
 It was clearly stated in the opening lines of 2nd paragraph that in any weak party system including the presidential system, the onus of making deals and compromises rests heavily upon individual candidates.

43. **B**  
They would condemn it because it will further weaken the party system.

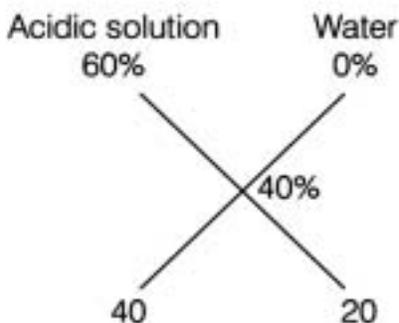
44. **C**  
Author's claim about single-term political system is based upon the notion that single-term limitations are strongly associated with corruption. So if it is discovered that most politicians are honest, then it will weaken his claim.

45. **D**  
Experiments in Latin America, Iceland and Greece have been successful in looking after the interests of the poor and the downtrodden. The last sentence of the first paragraph criticises the advanced democracies for their failure to redistribute the wealth.

46. **C**  
The last sentence of third paragraph talks about the evolution of different perspectives. The AAP will have to enard against the onslaught of vested interests which will be determined by sincerity of intentions.

47. **C**  
The author does not criticise the practice of democracy. On the contrary, he takes keen interest in evolving perspectives. Moreover he talks about its various determinants.

48. **C**



Ratio =  $40/20 = 2 : 1$

Here, 2 parts = 60 L

? Amount of water should be added = 1 part = 20 L

49. **C**

As,  $(5 \times 4) + (3 \times 2) + 2 = 28$

Same as,  $(8 \times 4) + (8 \times 1) + 2 = 42$

Hence, 1 will be come in place of question mark.

50. **D**

This answer is clearly stated in the last sentence of the paragraph. Option (a) can be ruled out because there is no support to show that studying maths is dangerous. Words are not mentioned in the passage, which rules out option (b). Option (d) is a contradiction of the information in the passage. There is no support for option (c).

51. **D**

Distance to be covered by Amit in 4 h =  $4 \times 40 = 160$  km

So, Sumit has gained 160 km over Amit at a relative speed of 20 km/h, so for gaining 160 km, he has travelled for  $= 160/20 = 8$  h

?Distance between Delhi and Kanpur =  $(8 \times 60) = 480$  km

52. **D**

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

$x + y = 60 \dots(i)$

and  $4x + 2y = 200 \dots(ii)$

Multiplying Eq. (i) by 2 and then subtracting Eq. (i) from Eq. (ii), we get

$2x = 80 \Rightarrow x = 40$

Now, put the value of x in Eq. (i), we get

$40 + y = 60$

$\Rightarrow y = 20$

$x = 40$  and  $y = 20$

53. **B**

Let n people actually worked on the job.

Then, total work = 20n

Also, total work =  $(n-8)40$

So,  $(n-8)40 = 20n$

$216n - 80n = 20n$   $\Rightarrow n = 16$

54. **B**

Let the rate of interest be r% per annum and the sum be ₹ P.

Then, difference between CI and SI for 2 yr

$= \left[ P \left( 1 + \frac{r}{100} \right)^2 - P \right] - P \times r \times \frac{2}{100} = \frac{Pr^2}{10^4}$

Also, difference between CI and SI for 3 yr

$= \left[ P \left( 1 + \frac{r}{100} \right)^3 - P \right] - P \times r \times \frac{3}{100} = \left( \frac{Pr^2}{10^4} \right) \frac{(300+r)}{100}$

Now,  $\frac{\left( \frac{Pr^2}{10^4} \right) \frac{(300+r)}{100}}{\left( \frac{Pr^2}{10^4} \right)} = 16 : 5 \Rightarrow \frac{(300+r)}{100} = \frac{16}{5}$

$\Rightarrow 1500 + 5r = 1600$

$\Rightarrow r = 20\%$

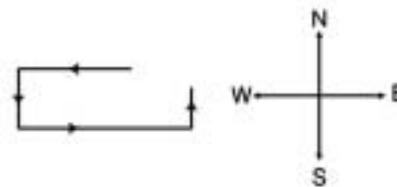
55. **B**  
Area which the goat can graze =  $(90/360) \times (22/7) \times 7 \times 7 = 38.5 \text{ m}^2$
56. **D**  
Total number of socks in the box =  $5+4 = 9$   
2 socks can be drawn from the box in  
 ${}^9C_2$  ways = 36 ways  
Number of ways of drawing 2 brown socks =  ${}^5C_2 = 10$   
Number of ways of drawing 2 white socks =  ${}^4C_2 = 6$   
Probability of drawing 2 socks of the same colour  
=  $P(2 \text{ brown socks}) + P(2 \text{ white socks})$   
=  $(10/36) + (6/36) = 16/36 = 4/9$
57. **A**  
The author's primary purpose is to explain existentialism and to support the thoughts of some prominent existentialists. Statement 2 is against the theme of the passage. Statement 3 cannot be substantiated from the passage. Statement 4 is partially correct as author has discussed the existentialist of nineteenth and twentieth century. So, the correct answer is statement 1.
58. **D**  
Option (a) cannot be concluded from the passage. The use of the word 'only' makes option (b) incorrect. Option (c) is not stated in the passage. Author has mentioned that universe is meaningless, and absurd so people must set their own ethical standards.
59. **B**  
Statement 1 is not mentioned in the passage. Statement 3 is not stated in the passage. The prime mover is Aristotle's divine philosophy.
60. **D**  
Author has started with the concept of individualism, which later paved the way for existentialism.
61. **D**  
The issue discussed in the statement is nowhere related to increase in unemployment, as the number of vacancies filled in will remain the same. Also, in a working place, it is the performance of the individual that matters and that makes him more or less wanted and not his educational qualifications. So, neither 1 nor 2 holds strong.

Besides, the needs of a job are laid down in the desired qualifications for the job. So, recruitment of more qualified people cannot augment productivity.

Thus, 4 also does not hold strong. However, it is the right of an individual to get the post for which he fulfills the eligibility criteria, whatever be his extra merits. Hence, Argument 3 holds strong.

62. **A**  
Relative speed of two men =  $1.5 + 1.2 = 2.7 \text{ m/s}$   
Distance travelled by two men =  $2.7 \times 10 = 27 \text{ m}$
63. **B**  
Let Tom, Dick and Jerry have  $x, y$  and  $z$  loaves of bread with them respectively, then  
 $x + y + z = 40$ ,  $z = 4x$  and  $y = z - 5 = 4x - 5$   
 $x + 4x - 5 + 4x = 40$   
 $9x = 45 \Rightarrow x = 5$   
So, number of loaves with Dick =  $5 \times 4 - 5 = 15$

64. **D**



It is clear from the figure, that he is facing towards North.

65. **A**  
Given information can be summarised as  
 $U > Q > P > T > S > R$   
1- 2- 3- 4- 5 - 6  
Clearly, the release of P precedes T.
66. **A**  
P is released immediately after Q.
67. **D**  
R cannot be released on fifth Friday as well because S has to be staged on that day.
68. **B**  
Clearly, S is released between T and R.
69. **D**  
Clearly, U is released first.
70. **C**  
 $N * P$  means N is the sister of P.  
 $P \# Q$  means Q is the mother of P as well as of N.  
 $Q = M$  means Q is the sister of M.  
Hence, M is the maternal uncle of N.

71. B



By going through inner circle, it is clear that each letter is increased by its next one.

72. C

Married persons living in joint families are represented by the region common to the square and the circle i.e. D and B. But according to the given condition, the persons should not be school teachers. So, B is to be excluded. Hence, the required condition is denoted by region D.

73. D

Option (a) just mentions the significance and application and not what philosophical logic means. Option (b) talks about logic as a whole and not philosophical logic. Option (c) is a conclusion that can be made after reading the passages. So, the options (a), (b) and (c) are incorrect while only option (d) mentions the central idea of the passage. Hence, option (d) is correct.

74. C

The passage summary have two basic points i.e. how philosophical logic came into being and what is its purpose, both of which are explained in the passage. Option (a) draws conclusion based on the passage. Option (b) mentions both points however the first point is incorrect while option (d) uses examples that shouldn't be used in summaries. Option (c) list both these points down. Hence, option (c) is correct.

75. C

The basic feature of colonialism in India was the appropriation by Britain of the social surplus produced in India.

76. B

India of 18th century could not be called under-developed, because India did not lag behind other nations, rather it was more developed than many other national economies.

77. A

India's under-development was not traditional because India of the 18th century was undeveloped and not under-developed, it is proved from the fact that India was more developed than many other economies.

78. C

Asking for extension of time before starting the work will prove to be of no use as you cannot know about the time needed in finishing the work. So, the best way is to start the work and try to finish it within the time limit. In case, you cannot complete the work, you can ask for the time extension.

79. A

As a public servant, it is your duty to enquire into such cases and take appropriate action, otherwise citizens will stop believing you. Option (b) is ethically and morally wrong and your duty as a police officer does not permit such conduct. Option (c) is in violation of your duty and a pretentious reason for letting an offender go. Option (d) shows your indecisiveness and inability to handle situation.

80. A

The best way to deal with such a situation is to launch a campaign on a large scale to open the minds and to make them realise that honour killing is a crime. This action will have a large scale impact. Changing the mindsets of the people on a large scale will prose a long-term solution. Options (b) and (c) are not practically feasible to administer absolutely as the situation is rampant. Warning the public may be felt as going against their traditional social believe which may aggravate the situation and public may not cooperate. So, option (a) is the best solution.