1. (b)
Let the first and last digits of the number be x and y.
X 0 Y
Number is 100x + Y.
According to the question,
100y + X – 100x – y = 198
99y – 99x = 198
9(y-x) = 18
Y – x = 2

2. (a)
Small cubes which will have exactly two painted faces will be on the middle of each edge. Therefore, 12 Such small cubes will be there.
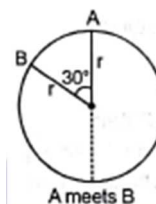
3. (c)
Hundreds digit > Tens digit > Unit digit
From 700 to 800, total 21 numbers are there in which the digit at hundred's place is greater than the digit at ten's place, and the digit at ten's place is greater than the digit at unit's place.
From 801 to 900, total such numbers are 28.
From 901 to 1000, 36 numbers are possible.
Total 21 + 28 + 36 = 85 numbers are possible.

4. (b)
Pen < Pencil < Book > Cap
= Pen < Book

5. (b)
Sale in Rs of geography Textbooks = ax
Sale in Rs of History textbooks = (a + 2) (X + 2)
Sale in Rs of Mathematics textbooks = (a-2) (x-2)
His total sale in Rs = as + ax + 2a + 2x + 4 + ax – 2a – 2x + 4 = 3ax + 8

6. (b)

15 Red balls	20 Black Balls
3R – 1	9B – 2
6R – 3	6b- 3
6R – 2	5B – 1

Total number of balls in the bag = 35
He wins if the ball is red and numbered 3 or if it is black and numbered 1 or 2
Number of red balls which is numbered 1 or 2 = 14
Chances of his winning = 6 + 14/35 = 20/35 = 4/7

7. (a)

Let r be the radius of the circle.
Distance AB = 2r x 30/360 = r/6
Distance covered by A = r
Distance covered by B = r – r/6 = 5r/6
Ratio of speeds of A and B = r/5r/6=6:5

8. (c)
Let the maximum marks be x.
Passing marks = 2/5x
30 + 30 = 2/5x
2/5x = 60
X = 150

9. (c)

Let x be the number of boys wearing full uniform
11-x + x + 14 – x = 19
25 – 9 = x
X = 6

Q 10 to 15

	Science College	Arts College	Commerce College	Engineering College
Gujarat	×	×	A	×
Rajasthan	×	C	×	×
Assam	×	×	×	D
Kerala	B	×	×	×
	City Q	City S		

10. (b) A is studying in Gujarat.

11. (a) Science college is located in city Q.

12. (b) C is studying in Rajasthan.

13. (a) D is not studying in City S.

14. (d) D is studying in Engineering College.

15. (a) Engineering College is located in Assam.

16. (b) Total 20 triangles are there in the given figure.

17. (d) Stands for 8
8 + 18 + 28 + 83 + 81 = 218

18. (a) The pattern is as follows :
8 + 4 – 6 = 6
10 + 6 – 5 = 11
15 + 8 – 7 = 16
13 + 8 – 4 = 17

19. (a) Number of diagonals in any polygon having n sides
$= n(n-3)/2$
Here, $n = 8$
Number of Diagonals $= 8 \times 5/2 = 20$

20. (c) Let t be the time taken from o to L.
If DL = 2 then PD = 1
So, For vehicle A, area covered = 1/2x3xt
And, for vehicle B, area covered = 2 x t
Ratio of the distances covered by vehicles.
A and B = ½ x 3xt/2xt = 3 : 4

21. (d)
The train will cross the man in
$= 200/40 \times 5/18 = 18$ Seconds

22. (b)
Refer to the sentence, "unlike Europe and North America……" it is very clear that India's economy primarily depends on agriculture. The last line of the passage corroborates that as well.

23. (a)
The author talks about the risk factors that comes with food production. The other options are inappropriate. Only option (a) goes with the central theme of the passage.

24. (b)
Although the author is a scientist. s/he emphasizes that faith can play a pivotal role in our lives as well. At the same time, s/he says that science helps in appreciating nature. Option (b) is the most appropriate among all the given options.

25. (d)
Refer to the first sentence of the passage. The author says that past bonds have hindered " the free development of the body and the spirit."

26. (b)
The author says that developing countries need funds to address climate change. The author says that 'Funding is vital." Hence, Only statement 3 is correct.

27. (d)
Refer to the first two sentences of the passage. The author says that coal and biomass can prove to be hazardous. The author further says that 10 lakh deaths occur every year in India due to polluting cooking fuels. Hence, option (d) is the most aropriate.

28. (b)
Refer to the second sentence of the passage. The author talks about " the vision of a possible world." Option (a)
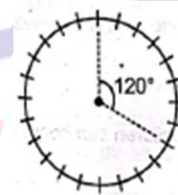
can be inferred from the second sentence.

29. (c)

Refer to the last sentence of the passage where the author says that countries try to control the Arctic region because of the melting ocean.

30. (b)

Refer to the second sentence of the passage. The author says that according to article 6, providing minimum support prices is "Subject to limits". In the light of the statements, Option (c) is the most appropriate.

31. (d)

The Passage talks about outmoded methods of imparting education in the Indian educational system which is not conducive to growth in a contemporary global economic system. This makes 2 a valid assumption. 1 and 3 talk about topics which are alien to the given passage.
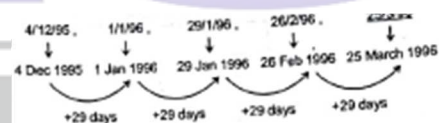
32. (d)

The given paragraph suggests that everyone has different food eating habits. And hence the same diet. Will not be applicable to everyone. This is why so many diets fail. Out of all the given options. Only option d states that there is no one solution for dieting. Other options are concerned about obesity in particular.
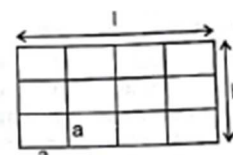
33. (c)

Option (a) states the opposite of what is mentioned. In the paragraph. (option b) in incorrect as it states that monoculture is the 'Only' way to ensure food security, It is one of the ways, but not the only way. The second half of the paragraph mentions that crop diseases will spread from Asia and North America to other parts of the world. This means that

these two contents will be the first to suffer.

34. (c)

Sp = rs 40, Profit = x%
CP = 100/100-x x 20
100/100 + X x 40 = 100/100-X x 20
100 + X = 200 – 2x
3x = 100
X = 100/3
Original cost of the article is
= 100/100x4/3 x 40
= Rs 30

35.

(b)

Each consecutive points will make an angle of
360 / 24 = 15 degree at the centre.
Two points which are making and angle of 120 degree at the centre will form an angle of 60 degree at the circumference i.e. an equilateral triangle.
8 such equilateral triangles are possible.

36. (c)

37.

(c)

38.

(a)

Let a be the side of each square and l, b are the
Length and breadth of the rectangle.
L2 + b2 = 25
L = 4a,b = 3a

$= 16a2 + 9a2 = 25$

A= 1

Area of each square = 12 = 1 sq cm.

39. (b)

40. (d)

The code for the different letters is as follows :

H – 9, A – 2 , M – 3

HAMAM can be written as 92323

41. (a)

X is between – 3 and -1 so let x = -2.9

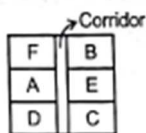And y is between – 1 and 1 so let y = 0

$X2 – y2 = (x + Y) (x-y)$

= (-2.9 + 0) (-2.9 – 0)

= 8.41, which is between 0 and 9.

42. (c)

X, Y 1 and Y > X

42 and 43:

43. (a)

Let Y = 3, x = 2

XY = 6, X/y= 0.6, Y/X = 1.5, X+Y/XY = 5/6 = 0.83

DY represents the largest number.

44. (b)

C's office is to the left of E.

45. (a)

A is the only immediate neighbour of F.

46. (d)

In the given passage. Statements2, 3 and 4 are mentioned statement one may be a fact in general, but it is not mentioned in the following sentence"the declining moisture retention of the mountain soils………. Changes in the forest cover" statements 3 is mentioned where the author talks about the concern of tea planters of Assam. Hence, Option (b) is the correct answer.

47. (c)

Statement 1 can be inferred from the following sentence – "the current concern the tea planters of Assam has is about the damage to tea plantations …………….. and the changing course of river system. Statement 2 is incorrect as it states salinization happens'Only' due to human activities. 'Human activities." Is just one factor. Sentence 3 is unsupported by the passage. Hence option (a) is correct.

48. (b)

Statement 1 is incorrect because it states desertification as a phenomenon 'Only' in tropical regions. Statement 2 is incorrect since the passage mentions that deforestation leads to desertification.but whether it leads to floods or not, hasn't been mentioned. Hence, option (d) is correct.

49. (c)

Statement 1 is not mentioned in the given paragraph. The passage states ;diversity of natural assets' Will be needed. " Conservation of natural assets' Will be needed. 'Conservation of natural water sources' is too particular and beyond the scope of the paragraph. Accelerated breeding programs are needed to conserve wider gene pool, not just the conservation of gene pool. Hence statement 2 doesn't follow. From the second half of the paragraph, this is from – "Under a changing climate., these ecosystems are ……"both statements 3 nd 4 can be inferred

clearly, Hence Option (c) is the correct answer.

50. (d)

The given paragraph is silent on 'Livelihoods' Hence Statement 1 cannot be inferred. The paragraph mentions – "crop varieties are needed that perform well…… homogeneity adapted to past or current conditions". Furthermore it is mentioned that such rigid ecosystems are at risk. Risk signifies nothing but extinction of plant varieties. Hence statement 2 can be inferred. Therefore option (b) is the right answer.

51. (d)

The key words in the given paragraph are – aspirations, glitter, shopping malls. All of these are aspects of consumerism, Which makes option (c) correct. All options a, b and d present extreme cases by using the word only, this limitation rules out all of them.

Option (b) can be directly deduced from the given paragraph, It is directly mentioned that – " the art of leadership can be acquired and can indeed be taught". Other options have redundant information.

52. (a)

Actual progress is more than the expected progress between august and September for a time being.

1st block	2nd block	3rd block	
6 ×	5 ×	4	= 120

53. (a)

54. (d)

If you look at the entire given period, the death rate has decreased much faster than the birth rate, so eventually the population will increase.

55. (c)

The difference between the death rate and birth rate has almost become constant, so population Growth rate will also stabilize. From the graph birth rate trend clearly indicates that it has stabilized.

56. (a)

Both the figures A and B are same. So, slopes of the graphs are same.

57. (a)

58. (b)

put option (a)
If minimum pieces = 2000
Cost of production = Rs 7 lackhs
S.P. = 2000 x 350 = rs 700000 = Rs 7 lakhs
No loss occurs.
Minimum number of pieces = 2000

59. (d)

Since, 18 adults are equivalent to 30 children.
Hence, 1 adult is equivalent to 30/18 = 5/3 children.
So having 12 adults in an elevator is comparable to
= 5/3 x 12 = 20 children.
Therefore, 30-20 = 10 children can board the lift with 12 adults.

60. (b)

Square is moving in clockwise direction while triangle is moving anti – clockwise.
Therefore, (Vii) figure – would be (same as (I)).

61. (d)

Definition of Dpendency Ration : The dependency ratio measures the % of dependent people (not of working age)/ number of people of working age
In 1- In country B, in the last two decades total number of dependent

people is almost same but the number of dependent people is almost same but the number of people of working age has increased, so Dependency Ratio will decrease.

In 2-, in both countries total number of dependent people is almost same throughout, in country A, number of people in age group 15 is 64 is in decreasing trend but in B it is in increasing trend, in next two and a half decades, these people will move towards dependent people category, as a result number of people in dependent category will increase at a faster rate in B as comparison to country A.

In 3- from the trend this is also right.

62. (a)
By Statement I, we can say that lakshmi's brother and daughter are on different sides of net.

By statement II, since Lakshmi & her brother are the only siblings, therefore, her son is on different side of the net from lakshmi's brother. Therefore, the worst player is Lakshmi, and best player is lakshmi's brother

63. (d)
Narrowing the gap between the repo and the reverse repo rates will make pricing easier in the market. And this will curb inflation.
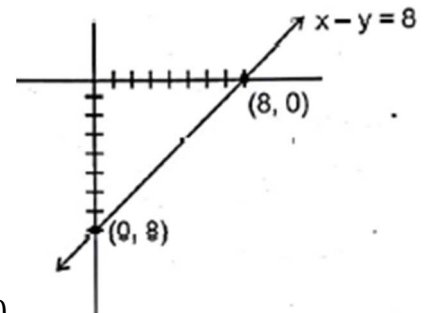
64. (d)
There is no direct or inverse relation between any two of the three parameters.

65. (d)
In the beginning the total direct tax is 10 and total indirect tax is 88
In the end the total direct tax is 15 and total indirect tax is 85, so 1 is correct, 2 is incorrect as this chart indicates comparative performance,

we cannot make any conclusion about a particular one.

66. (a)
67. (d)
By the graph, it can be observed that none of the statement is true, neither 1 nor 2 nor 3.

68. (d)
The passage describes how meat production through industrial farming result in pandemics like avian flu and also waste mega amounts of water. Thus, the environmental cost of meat production is emphasised in the given passage.

69. (b)
The passage mentions how tigers trekking back home from reserves more often than not pass through areas habituated with human beings. This poses a threat to both animals and human beings. This highlights the lack of safe passages between protected areas and thus these areas are essential aspect of conservation efforts.

70. (d)
The data provided in the given statements cannot be validated from the passage. 2 talks about legislations which is alien to the given passage and 1 talks about frequent failures in conservation strategies when it comes to relocating wildlife.

71. (c)
Import of sheet steel in first three months
= 40 + 37 + 36 = 113

Import of coil steel in first three months
= 30 + 31 + 33 = 94
Difference = 113 – 94 = 19

72. (c)
Total sheet steel imported over the six months
Period = 40 + 37 + 36 + 36 + 34 + 34 = 217
Approximate total value (in $) of sheet steel
= 217 x 256 = 55552 = 55550

73. (b)
Sheet steel imports in first three months = 113
Scrap steel imports in first three months
= 32 + 34 + 32 = 98
Ratio = 113/98 = 1.2:1

74. (c) Three dots

75. (c) Four dots.

76. (c) Line.

77. (a)
The passage states that curriculum reform should be initiated to provide for a child – friendly learning system that is both relevant and empowering. Both 1 and 2 are discussed and described as prerequisites under the Right to Education scheme. 3 is of paramount importance and is judged as a featyre which would make the scheme as successful and beneficial one.

78. (d)
The passage in detail discusses the role of the teacher and how under the scheme the duty of the teacher is to become responsible for the overall growth of the children. The teacher has to be made accountable for the children's learning processes and making sure that environment is child – friendly and not stress free.

79. (d)
The passage stresses on how teachers' must ensure a stress – free, child – friendly environment, Inculcation involves persistent instruction which often becomes stressful and in some instances forceful. This goes against the message of the passage.

80. (c) The passage talks about how the focus under Right to Education Should be on quality of education. It talks at length about issues pertaining to quality of education and also defines how to shape the role of the teacher with accordance to this view.