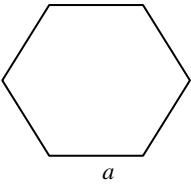
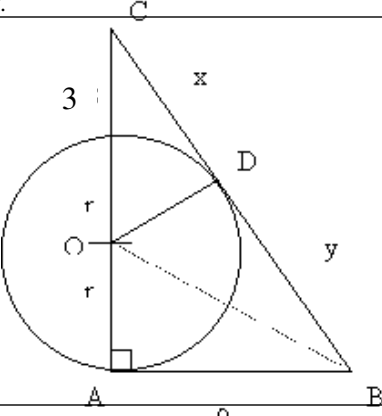


# CAT 2001 Answer Key

1.	1	41.	1	81.	3	121.	4
2.	3	42.	4	82.	1	122.	2
3.	1	43.	3	83.	3	123.	4
4.	2	44.	3	84.	4	124.	1
5.	4	45.	4	85.	2	125.	3
6.	2	46.	2	86.	2	126.	3
7.	4	47.	3	87.	3	127.	4
8.	1	48.	4	88.	3	128.	4
9.	3	49.	1	89.	3	129.	1
10.	3	50.	2	90.	4	130.	3
11.	2	51.	2	91.	3	131.	1
12.	3	52.	2	92.	4	132.	2
13.	1	53.	1	93.	1	133.	2
14.	3	54.	1	94.	2	134.	3
15.	4	55.	4	95.	1	135.	2
16.	4	56.	4	96.	4	136.	1
17.	2	57.	4	97.	4	137.	2
18.	1	58.	3	98.	1	138.	4
19.	3	59.	1	99.	3	139.	1
20.	2	60.	1	100.	2	140.	2
21.	3	61.	3	101.	4	141.	3
22.	4	62.	2	102.	1	142.	1
23.	1	63.	4	103.	3	143.	2
24.	4	64.	4	104.	4	144.	4
25.	1	65.	1	105.	4	145.	4
26.	2	66.	3	106.	4	146.	4
27.	3	67.	4	107.	3	147.	4
28.	1	68.	2	108.	4	148.	2
29.	4	69.	3	109.	1	149.	3
30.	3	70.	1	110.	1	150.	4
31.	1	71.	4	111.	3		
32.	2	72.	4	112.	2		
33.	4	73.	4	113.	1		
34.	2	74.	3	114.	1		
35.	2	75.	3	115.	2		
36.	1	76.	3	116.	2		
37.	3	77.	1	117.	2		
38.	4	78.	1	118.	2		
39.	1	79.	4	119.	4		
40.	3	80.	4	120.	3		

# CAT 2001 Solutions

1.	<p>Let the maximum marks in each paper be 100. So he gets <math>6x</math>, <math>7x</math>, <math>8x</math>, <math>9x</math> and <math>10x</math> in each of the papers respectively. Then 60% of total marks = <math>40x</math> <math>\Rightarrow 300 = 40x \Rightarrow x = 7.5</math> Hence the percentage marks in each paper is 45 %, 52.5 %, 60 %, 67.5 % and 75 % respectively. So in 4 papers he got more than 50 % marks. Ans. (3)</p>
2.	 <p><math>\cos 45^\circ = (2 - a) / 2a</math> <math>\Rightarrow a = 2 / (1 + \sqrt{2})</math>.</p>
3.	Check the options, you will find that only option (1) is incorrect.
4.	As no upper limit or lower limits are defined for the numbers $x$ or $y$ , thus we cannot be sure which of the options can be true. You can check the options; you will find that only option (4) is correct.
5.	Red light flashes once in every $1/3$ of a minute. Green light flashes once in every $2/5$ of a minute. Taking LCM of both the figures, we can find the time required by both to flash together = LCM of $(1/3)$ and $(2/5) = 2$ . Hence they both flash once every two minutes. Hence in 1 hour, they will flash $60/2 = 30$ times.
6.	If we start filling the first box with 120 Oranges, the second with 121 Oranges and so on, we will be able to fill 25 boxes, each with different number of Oranges in it. Now all the other boxes will have to contain some number similar to that already contained in some other box. Thus answer is 103. Option (2)
7.	Total difference of years = 30 years. Leap years in these 30 years = 8. So odd no. of days = $8 \times 2 + 22$ (for ordinary years) = 38. So final odd no. of days = $38/7 = 3$ days (take the remainder). On 9.12.2001 is Sunday so on 9.12.1971, it will be $(7-3 = 4$ th day) Thursday.
8.	

	<p>Making the equations : <math>OB^2 = OA^2 + AB^2 = OD^2 + BD^2</math> or we can say <math>r^2 + 9^2 = y^2 + r^2</math> Therefore <math>y = 9</math>. Making the equation <math>(3 + r)^2 - r^2 = x^2</math> and <math>(x + 9)^2 = (3 + 2r)^2 + 9^2</math>. Solve for <math>x</math> and <math>r</math>.</p>
9.	Let the width of walkway = $x$ m. Area of walkway = 516 $= (60 + 2x) \times (20 + 2x) - 60 \times 20$ . So $516 = 1200 + 120x + 40x + 4x^2 - 1200$ $\Rightarrow 516 = 4x^2 + 160x$ $\Rightarrow x^2 + 40x - 129 = 0$ $\Rightarrow (x + 43)(x - 3) = 0$ $\Rightarrow x = 3, -43$ (-ve value is not possible). So $x = 3$ m.
10.	Let the number to be multiplied be $z$ . Then we can say $53x - 35z = 540$ . Solving we get $x = 30$ . Thus the new product she would have obtained is $= 30 \times 53 = 1590$ .
11.	From quadrilateral ADBC, $(180^\circ - x) + 40^\circ + (180^\circ - y) + z = 360^\circ$ . $\Rightarrow -x - y + z + 40^\circ = 0 \Rightarrow x + y - 40^\circ = z$ . Also in $\triangle EDF$ , $\angle D = 180^\circ - \angle E - \angle F \Rightarrow 40^\circ = 180 - x - y \Rightarrow x + y = 140^\circ$ . So $z = 100^\circ$ .
12.	The given data can help us form two sequences, they are as: FOR X : The first term = $300 \times 12 = 3600$ (salary received in the first year) Thereafter, he receives an increment of Rs. 30, i.e. an annual increment of Rs. 360. Thus the common difference = Rs. 360. Summing the values for 10 year period, and using the formula: , we get the total income of X as Rs. 52200. FOR Y: The first term = $200 \times 6 = 1200$ (salary received in the first six months) Thereafter, he receives an increment of Rs. 15, i.e. a six monthly increments of Rs. 90. Thus the common difference = Rs. 90. Summing the values for 20 terms (10 years, each period of 6 months). Using the same formula, we get the total income of Y as Rs. 41100. Summing both the values we get = Rs. 93,300.
13.	Let $a, b, c$ and $d$ be the 4 digits of the number. The equations we get $a + b = c + d$ , $a + d = c$ , $b + d = 2(a + c)$ . Using 1 and 2, we can say that $a + b = a + 2d$ . So we get $b = 2d$ . Now $a + c = 3/2 d$ and $a - c = d - b = d - 2d = -d$ . Using the last two equations, we get $2c = 5/2 d$ . Or $c/d = 5/4$ . Since these are single digit numbers, the only values that satisfy this will be $c = 5$ and $d = 4$ .
14.	Let third side be $x$ . $S = (20 + 10 + x)/2 = (30 + x)/2$ . Now use Hero's formula for the area of the triangle

	and we can find the answer as 1 <sup>st</sup> option.
15.	The first thing we will have to find out is the total number of pages in the book. Thus we need to find the sum of the first natural numbers, such that we reach to a number just short of 1000. For this we will have to go for hit and trial. Assume total number of pages as 44. Then sum of all the pages is 990, thus we can say that $990 + 10 = 1000$ . The page number added twice was 10.
16.	Total population be $x$ . Then amount received right now is: $0.6x \times 600 = 360x$ . This is 75% of the amount. Thus the total amount required is $480x$ . Hence remaining amount = $480x - 360x = 120x$ . So required contribution per head = $(120x/0.4x) = 300$ .
17.	Let distance from the wall be $x$ . The length of the ladder is $x + 2$ . Using the info in the question, we get the equation as $x^2 + 8^2 = (x + 2)^2$ . Solving we get $x = 15$ , so the length of the ladder is 17 m.
18.	Upto $n = 4$ , this equation is not satisfied. For $n = 5$ , it is equal to 0. The least value for which it is satisfied is $n = 6$ . Since $n > m$ , so least value of $m$ should be 5.
19.	We have to look for a right triangle with the difference in the sides of legs equal to $7 [(x - 3) - (x + 4)]$ . Also if $y = 10$ , then very likely that the two legs will be 6 and 8. So $x$ will be either 9 or 11. If $x = 11$ , then we get two sides as 8 and 15, which will form a right triplet 8, 15, 17. So $x = 11$ is the answer.
20.	Let the no. of students in classes are $x, y, z$ respectively then. $83x + 76y = 79(x + y)$ $\Rightarrow 4x - 3y = 0$ $\Rightarrow x : y = 3 : 4$ and $76y + 85z = 81(y + z)$ $\Rightarrow 5y - 4z = 0$ $\Rightarrow y : z = 4 : 5$ . Hence $x : y : z = 3 : 4 : 5$ $\Rightarrow x = 3k, y = 4k$ and $z = 5k$ . Now average for all the three classes is $(83 \times 3k + 76 \times 4k + 85 \times 5k)/(3k + 4k + 5k) = 81.5$ .
21.	Area of triangle BEF = $\frac{1}{2} \times EF \times BC$ . Area of rectangle ABCD = $DC \times BC$ . Since $EF = DC/3$ , so required ratio = $(\frac{1}{2} \times DC \times BC) / (DC \times BC \times 3) = 1/6$ .
22.	If the quadrilateral is ABCD and $\angle ABC = 90^\circ$ , then $AC^2 = 24^2 + 32^2$ $\Rightarrow AC = 40$ . So area of $\Delta ABC = \frac{1}{2} \times 24 \times 32 = 384 \text{ m}^2$ . Area of $\Delta ADC$ : Sides are 25, 25 and 40. Applying Hero's formula to these values, we get the area as $300 \text{ m}^2$ . So total area = $384 + 300 = 684 \text{ m}^2$ .
23.	Sita takes $1/3$ of the total mints kept there..... which means total number of mints in the bowl should be a multiple of 3.

	There is no option, that satisfies this logic. (The actual answer is 48)									
24.	For minimum value assume both to be equal $x = 0.5$ and $y = 0.5$ . Thus the value of 1 <sup>st</sup> term is 6.25, and similarly for the other term, the value is 6.25. Thus answer is 12.5.									
25.	As is given: If A takes 4 days then B takes 8 days, C takes 16 days and D takes 32 days. A & D together take $(4 \times 32)/36 = 32/9$ days, B & C together take $(8 \times 16)/24 = 16/3$ days. As $(32/9) / (16/3) = 2/3$ . So, the pairs are (A & D) and (B & C).									
26.	Let length of track be $X$ metres. Then <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 0 10px;">A</td> <td style="padding: 0 10px;">B</td> <td style="padding: 0 10px;">C</td> </tr> <tr> <td style="padding: 0 10px;"><math>x</math></td> <td style="padding: 0 10px;"><math>x-12</math></td> <td style="padding: 0 10px;"><math>x-18</math></td> </tr> <tr> <td></td> <td style="padding: 0 10px;"><math>x</math></td> <td style="padding: 0 10px;"><math>x-8</math></td> </tr> </table> The ratio of speeds remains the same, so we can form the equation as $x - 12 / x - 18 = x / x - 8$ . Thus solving we get $x = 48$ m.	A	B	C	$x$	$x-12$	$x-18$		$x$	$x-8$
A	B	C								
$x$	$x-12$	$x-18$								
	$x$	$x-8$								
27.	Time taken in the given journey = $(200)/(60)$ $= (20)/(6)$ hrs. Required fuel = $(20/6) \times 4 = (40)/(3) = 13.33$ litres.									
28.	If speed is 40 km/hr, fuel consumption = $(200/40) \times 2.5 = 12.5$ litres. So, for reducing fuel consumption, she should reduce speed from 60 km/hr.									
29.	Given that escalator moves at a constant speed and Shyama takes three steps for every 2 steps of Vyom. Let escalator move $x$ steps in the same time in which Shyama goes up 25 steps. Then total height of escalator = $25 + x$ steps. Now, Vyom goes up $25 \times 2/3$ steps in same time in which Shyama goes up 25 steps. Then total height of escalator = $(50/3) + x + (10/3) + (x/5)$ $= 20 + (6x/5)$ (Escalator go up $x$ steps in which time Vyom go up $50/3$ steps for Vyom's 1 step escalator goes up $(x \times 3) / 50$ steps. For Vyom's $(10/3)$ steps escalator go up $x/5$ steps) $\Rightarrow x = 25$ So the required steps = $25 + 25 = 50$									
30.	$3B + 7S + 1F = 120$ ... (I) and $4B + 10S + 1F = 164.5$ ... (II). From (II) - (I), we get $1B + 3S = 44.5$ . Now from (I) we get $3B + 7S + 1F = 120$ $\Rightarrow 1B + 1S + 1F + 2B + 6S = 120$ $\Rightarrow 1B + 1S + 1F + 2(1B + 3S) = 120$ $\Rightarrow 1B + 1S + 1F + 2 \times 44.5 = 120$ $\Rightarrow 1B + 1S + 1F = 120 - 89$ . So $1B + 1S + 1F = \text{Rs.} 31$ .									
31.	For minimum value of product, let us assume that $a = b = c = d = 1$ , then we get our answer as 16.									
32.	Let they together will take $x$ hour to do the work. Then Asit, Arnold, & Afbal will take respectively $x + 6, x + 1$ & $2x$ hrs. So $1/x = 1/(x+6) + 1/(x+1) + 1/2x$ $\Rightarrow x = 2/3 \text{ hr} = 40 \text{ minutes}$ .									
33.	Let speed of Rohit be $x$ and of current be $y$ . Then $12/(x + y) = \{12/(x - y) - 6\}$ $\Rightarrow y^2 - x^2 + 4y = 0$ .....(1) and $12/(2x + y) = \{12/(2x - y) - 1\}$ $\Rightarrow 4x^2 - y^2 - 24y = 0$ .....(2) eq. (1) $\times$ 4 + eq. (2)									

	$\Rightarrow 3y^2 - 8y = 0$ $\Rightarrow y = 8/3.$
34.	Total weight of fresh grapes = 20 kg Weight of solid part = $(20 \times 10) / 100 = 2$ kg. In dried grapes, water is 20%, so solid part is 80%. Hence total weight of dried grapes = $(2/80) \times 100 = 2.5$ kg.
35.	Let the $n^{\text{th}}$ term be $a_n$ . Given $a_7^2 - a_6^2 = 517 \Rightarrow (a_7 + a_6)(a_7 - a_6) = 517$ $\Rightarrow (a_7 + a_6)(a_7 - a_6) = 11 \times 47$ $\Rightarrow a_8 \times (a_6 + a_5 - a_6) = 11 \times 47$ $\Rightarrow a_8 \times a_5 = 11 \times 47$ $\Rightarrow a_8 = 47, a_5 = 11$ $\Rightarrow a_8 = a_7 + a_6 = 2a_6 + a_5 = 3a_5 + 2a_4$ . So $a_4 = 7$ . Now solve 7, 11, 18, 29, 47, 76, 123. So 10th term will be 123.
36.	Working backward from options (4) & (2) cannot be answer because after one cycle their value will be less than the selling price given. Option (3) is after I cycle will become 2059, so after cycle II it will be definitely less than the given price.
37.	Mc = no. of males in Chota Shahar, Mm = no. of males in Mota Shahar, Fc = no. of females in Chota Shahar, Fm = no. of females in Mota Shahar. Then $Mc + 4522 = Mm \dots (1)$ , $Fm = Mm + 4020 \dots (2)$ , $Fc = 2Mc \dots (3)$ , $Fc = Fm - 2910 \dots (4)$ From (1) $Mm - Mc = 4522 \dots (5)$ and From (2), (3), (4) $2Mc = Mm + 4020 - 2910$ $\Rightarrow Mm - 2Mc = -1110 \dots (6)$ Solving (5) and (6) for Mc we get $Mc = 5632$ .
38.	Of the given options, $X^2Y$ has the least value.
39.	Let us assume that they meet after $x$ hours. So $70 \times x + 50(x - 1/4) = 180$ $\Rightarrow 120x = 192.5$ $\Rightarrow x = (192.5/120)$ . Thus the trains should meet at $(192.5/120) \times 70$ km. from A = 112 km.
40.	Given, there are coins of denomination of Re.1, Rs. 2 and Rs.5. Total number of coins 300. Total amount = Rs. 960. Let the number of coins of Rs. 1, Rs.2, Rs. 5 be $x, y,$ and $z$ respectively. Then $x + y + z = 300 \dots (1)$ $x + 2y + 5z = 960 \dots (2)$ $y + 2x + 5z = 920 \dots (3)$ Solving equation (1), (2) and (3) we get $x = 60, y = 100, z = 140$ .
41.	Let the base be $n$ , then $(4n + 4)(n + 1)$ = $n^3 + 3n + 4$ $\Rightarrow 4n^2 + 8n + 4 = n^3 + 3n + 4$ $\Rightarrow n^3 - 4n^2 - 5n = 0 \Rightarrow n = 0, -1, 5$ . Hence base is 5. Therefore $3111 = 3 \times 125 + 25 + 5 + 1 = 406$ .
42.	The coins can be broken into parts as 1, 2, 4, 8, 16, 32, 64, 31. Thus we will require 8 bags in all.
43.	We can write $a^2 - 2a = a(a - 2) = (b^2 - b)\{(b^2 - b) - 2\}$ . This can be solved and re-written as $(b - 2)(b - 1)b(b + 1)$ .

	This is a series of 4 consecutive numbers of which 2 will be definitely even (One definitely divisible by 4, other by 2) & one has to be definitely divisible by 3. Thus we get factors of $2 \times 3 \times 4 = 24$ .
44.	The last two digit places can be filled in 8 ways. Remaining 3 places in ${}^4C_3 \times 3!$ ways. . Hence no. of 5 digit nos. which are divisible by 4 are $24 \times 8 = 192$ .
45.	The increase or decrease in BA will depend on the performance of the batsman in the finished versus unfinished innings. In case the score in unfinished innings is very low, then the $MBA_2$ will decrease, in case it is higher, then $MBA_2$ will increase.
46.	In this case the unfinished innings score is lesser than the average of the finished innings, so $MBA_2$ will decrease. However as far as BA is concerned, even if he had scored a single run, BA would have increased. So answer is 2.
47.	ABCF, ABF, ADCF, ADEF, ADCEF, ABDEF, ABEF, ABCEF, ABDCF, ABDCEF i.e 10 ways.
48.	The number of all possible ways of putting 6 balls in 6 boxes is 6! There is only one correct way of putting the balls. It is not possible that only ball goes into the wrong box and remaining 5 into the right box. Thus if there is a mistake, at least 2 will be in the wrong box. Required number is $6! - 1 = 719$ .
49.	The average works out to $602/17$ . Now we know that the number of integers will be close to 17. After erasing the number of integers that remain is likely to be 68 (multiple of 17). In this case the sum of the number is $602/17 \times 68 = 2408$ . If the number of integers were 69, (adding the erased number to 68 integers) then the sum comes out to be $69 \times 70/2 = 2415$ . So the number that has been erased is $2,415 - 2,408 = 7$ .
50.	Using i) we can see that the only way it is possible is $2 + 4 = 6$ and $4 + 6 = 10$ . So $e$ can have values 6 or 10. But we know from iii) that $e$ cannot be 10. So $e$ has to be 6, $b$ has to be 10. This gives us that $a$ is 4, $d = 5$ and $c = 2$ .
51.	Clearly stated: "The main problem that plagued previous efforts to study the Dark Age was not the lack of suitable telescopes, but rather the lack of suitable things at which to point them. Because these events took place over 13 billion years ago..." hence (2)
52.	Directly stated in the last paragraph.
53.	Stated in the first and second paragraphs.
54.	"All the new quasars are terribly faint, a challenge that both teams overcame by peering at them through one of the twin Keck telescopes..." hence (1).
55.	Note that the phoneme is same: /r\h/ as is rhyme /ime/. Hence (4).
56.	"The awareness of syllables, onsets, and rimes appears to emerge at around the ages of 3 and 4, long before most children go to school." Hence phoneme comes last.
57.	"In particular, those who have a specific



	phonological deficit are likely to be classified as dyslexic by the time that they are 9 or 10 years old.” Hence any one or more deficit would classify as dyslexia.
58.	Last paragraph “Treiman and Zudowski showed that 4- and 5-year old children found the onset-rime version of the same/different task significantly easier...”
59.	Since the onset corresponds to any initial consonants in a syllable, a mono syllable word can have only one onset.
60.	Globalising our inequities refers to making the issues global, hence (1).
61.	“Inverted representations, as we know, have often been deployed in human histories as balm for the forsaken...” implies that the poor are kept poor by giving them false hopes or slogans.
62.	First line: “United Nations conference on racial and related discrimination” implies racial and other discrimination would be discussed.
63.	“...at least to be complemented now for admitting, however tangentially, that caste discrimination is a reality” hence (4).
64.	The line preceding the social construction talks about caste discrimination.
65.	Billie Holiday will be remembered because she had the “most heart-rending voice of the past generation.” Her voice had an element of sadness, not anger, hence (1).
66.	Billie Holiday was ravaged: “she still sounded like a ravaged echo of her greatness. Others had not even the heart to see and listen any more.” Had she not died, this would have continued.
67.	There is no clue that she actually welcomed suffering.
68.	It is not mentioned that others accompanied her.
69.	Can be inferred from the first few lines: “Each of the temporal frames has a different focus, and by shifting them Kurosawa is able to describe ... erosion of Dersu’s way of life.
70.	“The film itself is circular, opening and closing by Dersu’s grave...” hence (1).
71.	“Yet by exploring these ruminations, the film celebrates the timelessness of Dersu’s wisdom.”
72.	The prologue helps to impose the past on the present, when there was lack of understanding of nature.
73.	All the given choices are mentioned in the passage point to his having sensitive nature.
74.	“The first image is a long shot of a huge forest, the trees piled upon one another by the effects of the telephoto lens so that the landscape...” Clearly, the protagonist is missing in the beginning.
75.	“A dynamic leadership seeks to free itself from the constraints of existing rules...” hence (3).
76.	Can be directly inferred from the last few lines.
77.	Note that music, dance and drama are mentioned for appreciation, but not that they have to be chosen over something.
78.	Directly mentioned in the last lines of the second paragraph.
79.	“But a system governed solely by impersonal rules can at best ensure order and stability; it cannot create any shining vision of a future in which mere formal equality will be replaced by real equality and fellowship.”

80.	Note that B is the opposite of what is stated, while D is also not true with respect to the passage, hence (4).
81.	E introduces the subject, and should be followed by A and D then CF are related and the paragraph should end with C.
82.	The paragraph must start with F as it introduces the subject; then D, which is a question, must be answered by E.
83.	E begins the subject, followed by A and then C, “he acknowledges too...”
84.	Passivity as a subject is introduced in A, followed by BCDE.
85.	The subject is introduced in A, followed by C and then DB are clearly related.
86.	The face was free from expression, hence difficult to ascertain if she appreciated.
87.	The best choice is experience, which is significant.
88.	The person who emerges ...combines the two things.
89.	Since organizations are mentioned, it has to be reports.
90.	Heir and tradition match.
91.	A matches with G, B with E, and so on
92.	A matches with F, B matches with H
93.	A matches with H, B matches with F, and so on.
94.	A matches with F (tight shoes), B matches with H (victims), and so on.
95.	A matches with G, B with E, and so on.
96.	Parsimonious: stingy. Altruistic is unrelated.
97.	Obviate: to make unnecessary. Bolster is to support.
98.	Disuse: unfashionable; prevalent is opposite.
99.	Specious: seemingly true but false statement; credible is true.
100.	Facetious: joking; jovian is unrelated.
101.	From the above information we can make a table having information about liking and disliking of various persons by table we get the solutions that is option no. (4). Ans. (4)
102.	It is clear from the above three statements in which one part is false and another is true. If we will follow from statement N1 by taking a statement false and another true we will get the description of the dog. Ans. (1)
103.	From the above given schedule we get the order as: Sati Savitri, Veer Abhimanyu, Sunder Kand, Joru Ka Gulam, Jhansi ki Rani and Reshma Aur Shera so the Ans. (3)
104.	From the above information we can get oil pipeline from Avanti to Vidisha is 1000, Hence free capacity = 0. Ans (4)
105.	From the above information we can get oil quantity in pipeline from Avanti to Vaishali is 700. Hence free capacity = 300. Ans(4)
106.	Quantity moved from Avanti to Vidisha = 1000. Ans(4)
107.	There is no dog named Pluto that is Alsatian. Either Pluto named dog or Alsatian or both are dogs. Hence Ans. (3)
108.	We don't have complete data with us.
109.	Either Pluto named dog are Mammal or any other dog is Mammal or both are Mammals. Hence Ans. (1)
110.	X implies that all dogs which are Mammals, but X = D implies all dogs are Mammals. Hence Ans. (1)
111.	Motorcycle Tiffin Box Persons



M1	O	F+B
M2	P	E+D
M3	Q	A+G
M4	R	C+H

Since B cannot with R and E, so he must go with O thus C will be with H. Ans. (3)

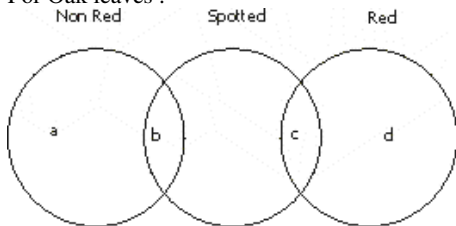
112. A(M)---B(M)---C(M),D(F)----E(M),F(M)  
P(F)---Q(F)----R(F),S(M)----T(F),U(F)  
There will be minimum 12 people in the gathering and they will satisfy all the constraints of the problem. Ans. (2)

113. In this question our first priority will be to spend full amount of Rs. 1000 so there should not be any penalty. Given :  
D+2B (220 Rs.), A+C (180 Rs.), E (2B, D)  
Now I will buy the articles in the following way to earn maximum points.  
(2D +4B) = 440; B = 90; C = 70  
(A+2B+C+D) = 400  
Total money spent is Rs. 1000 and items will be 13.

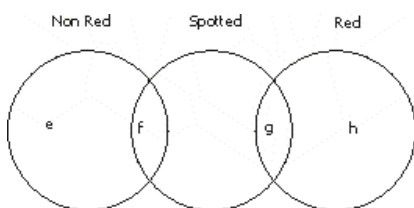
114. Given :  
A < 3B, C > B, D = C-B, A = 3D  
Basheer has total amount = Rs. 500 (because he bought a sweater costing Rs. 600 and borrowed Rs. 100 from Ashok and left with no amount)  
So Ashok has total less than Rs. 1500 (A < 3B)  
Ashok has atleast Rs 1000 amount  
So we can write:- 333.34 < D < 500  
So Deepak can buy a Shirt. Ans (1)

115. Radha, Rupa, Renuka, Ruchika, and Ritu are in different weight groups. Rupa is in group W1 with Sonali, Shubra, Shahira and instructor Amita, Kamal and Tara cannot be with Radha. Soumya and Ruchika are in same group so Soumya cannot be in the group as Radha. Renuka and Rupali are in same group so Rupali and Radha cannot be in the same group. So with the above conclusion it is clear that no any females except Jyotika and Shweta can be with Radha in same group. Now Jyotika and Shweta are in weight group with total four members so at least one female must be in this group and who cannot be with Radha. So Radha must be alone in her group and her instructor must be Elina. Ans. (2)

116. For Oak leaves :



For Maple leaves :



C must be even and positive, d = h, a = 0, b = 5c  
f = 0, g = 6, e = 22  
Given : a + b + c + d + e + f + g + h = 50  
Using above datas in the above equation :  
d + 3c = 11; Since c is even positive so c must be 2

c = 2 and d = 5  
Total Oak leaves = a + b + c + d = 17; Ans. (2)

117. David and Peter cannot be in the same team so option (3) must be eliminated. If Rahim is selected then Shyam must be selected so option (4) must be eliminated. David and Fiza must be in the same team so option (1) must be eliminated. Ans (2)

118. Only option (2) satisfies all the given conditions. Ans (2)

119. Working from the given data we see that none of the given options satisfy all the conditions. Ans (4)

120. Direct from the table we can count the number of lays as 17. Ans(3)

121. Direct from the table, count the no. of lays for Extra-Extra Large as 14. Ans(4)

122. Direct from the table we can find out how much order has surplus that is 4 orders so Ans(2)

123. Count the No. of lays required for producing yellow or Extra-Extra Large White fabrics Ans(4)

124. Check Each option and compare it with the quantity given in the question . Ans(1)

125. Total Man Hours Needed for Onsite = 290 Hr.  
Total Man Hours for whole projects = 1100 Hr.  
So %= 30  
Ans.(3)

126. Total Man Hours Spent on the onsite = 290 Hr.  
By Checking every option we will get the option 3 as the answer as Man Hr. neede for actual offshore testing is 290 Hr.  
Ans. (3)

127. Checking each option We will get answer 4 because:  
Man Hours for Testing offshore=145 Hr.  
Man Hours for design= 130 Hr.  
Ans. (4)

128. The Offshore testing = 145 Man Hrs.  
Onsite Testing = 305 Man Hrs. %= 52%  
So Ans. (4)

129. When total Man Hr. is 1100 Than Coding takes 520 Hrs. So Coding Will take 52Hrs in the project of 100 Hrs. Ans (1)

130. Approx. Heathrow Has traffic of 62500000 It will form Approx. 20% of the five most busiest airports. Ans (3)

131. Approximately add all the passengers of top 20 airports and find the total no. of pasenger of the top ten airports, percentage will be 60% so, Ans(1)

132. Ans(2)

133. By calculating theTraffic of Non USA busiest airports, there will be first 6 airports which will exceed the 30 million passengers so, Ans(2)

134. Given  
P = Rs 2.78, Q = Rs 1.59, R = Rs 0.68 < O < P < O : P  
On checking with option we get Ans. (3)

135. Required cost = (cost by rail & road)/(total tonnage capacity) = 54/36 = Rs. 1.5  
Ans (2)

136. The cheapest mode of transportation is by road i.e. Rs. 0.68 per tonne. Ans (1)

137. From the above information if we will interchange the efforts allocated to various operations then finally we will get B = E.  
So according to B the rank of company 3 is Three.  
Ans. (2)

138. From the table it is very clear that after this cycle company five will gain highest in operation E and

139	that will be approximately 40%. Ans. (4) Total of B, C, D, E and F for company 4= 81.5 So after this process the value of E will be = 16.3 So E will increase by 28.6 - 16.3 = 12.3 Ans. (1)
140	From above information we can deduce following relation between family and their dinner and their Colour of Chinaware. At 12 noon ----> Sharma Family -----> have sambhar -----> white dinner set At 1 PM -----> Pittabrahmins -----> have brinjal -----> blue dinner set At 2 PM -----> Bannerjee -----> have makka ki roti ----> red dinner set Hence Ans (2).
141	From above information we can deduce following relation between child and their age and their Birth date. Vaibhav -----> Boy -----> Born in June -----> 7 years old .....(1) Suprita -----> Girl -----> Born in April -----> 4 years old .....(2) Anshuman ----> Boy -----> Born in September ---> 2 years old .....(3) Hence Ans(3).
142	Arranging the given data we get the following equations : Elle = 3 Zaheer ... (1) Zaheer = 0.5 Waheeda ... (2) and Yogesh > Zaheer ... (3) Option (1) is sufficient to get Elle's age as 30 years.
143	Combining the equations (1) and (2), we can say that Elle is older than Waheeda
144	Ans 4. Both statements are not sufficient to get the number of apples bought by Ram and Gopal.
145	Ans 4. By the both statements we cannot know that

146	how many round will ferry make From statement A, there are many pairs possible like (6, 2), (12, 4) etc. So statement A alone is not sufficient. From statement B, the possible pairs are ( $\pm 4$ , $\pm 3$ ) and ( $\pm 6$ , $\pm 2$ ). So statement B alone is not sufficient. Combining the 2 stmts gives the pairs as ( $\pm 6$ , $\pm 2$ ). Since a unique value of $x$ cannot be determine, the given data is not sufficient to answer the question. Ans (4).
147	Ans. (4) Statement (A) is not sufficient to give the answer. We will get the pairs (15,2), (10,3), (6,5). Statement B gives pairs as ( $\pm 3$ , $\pm 10$ ), ( $\pm 5$ , $\pm 6$ ), ( $\pm 15$ , $\pm 2$ ). Combining we get ( $\pm 15$ , $\pm 2$ ). So insufficient data.
148	Ans 2. If diameter is given, then side of square can be found. Similarly if side of square is given then the radius of circle can be found. Hence from both the statements, individually can provide the difference in areas
149	Ans 3. Combining both the statements, we got the answer.
150	Ans 4. From the first statement we cannot know what the GDP was 5 years ago. From second statement we know that $x$ GDP is greater than $y$ but don't know how much greater.

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