

Q.NO	QUESTIONS	ANS	EXPLANATIONS
1.	<p><b>Ayesha's father was 38 years of age when she was born while her mother was 36 years old when her brother four years younger to her was born. What is the difference between the ages of her parents?</b></p> <p>(a) 2 years (b) 4 Years (c) 6 years (d) 8 years</p>	C	<p>Mother's age when Ayesha's brother was born = 36 years.</p> <p>Father's age when Ayesha's brother was born = (38 + 4) years = 42 years.</p> <p>Therefore, the required difference = (42 – 36) years = 6 years</p>
2.	<p><b>The price of an item is decreased by 10%, then by 20%, and finally by 30%. This is equivalent to:</b></p> <p>(a) Decreasing the price by 50.4% (b) Decreasing the price by 60%. (c) Decreasing the price by 40.5% (d) Decreasing the price by 49.6%</p>	D	<p>Decreasing a price by 10%, then by 20%, and then by 30% is equivalent to taking 90% of a price, then taking 80% of the remaining price, and then taking 70% of that. That, in turn, is equivalent to multiplying the price by 0.90, then by 0.80, and then by 0.70.</p> <p>For simplicity's sake, assume the initial price was Rs. 100. Then we can calculate the final price as follows:</p>

			<p>Final price = <math>100 \times 0.9 \times 0.8 \times 0.7 =</math> Rs. 50.40</p> <p>So, we essentially discounted the original price by Rs.49.60, which is 49.6%.</p>
3.	<p><b>Anand gives 35% of the money he had to his wife and gave 50% of the money he had to his sons. Remaining amount of Rs.12,000 he kept for himself. What was the total amount of money Anand had?</b></p> <p>(a) 60,000 (b) 70,000 (c) 80,000 (d) 90,000</p>	C	<p>Anand gave away <math>35\%+50\% = 85\%</math> of his money to his wife and sons. So, he is left with 15% of the money.</p> <p>Using unitary method,</p> <p>15% of the money = Rs.12,000 1% of the money = <math>Rs.12,000/15 =</math> Rs.800</p> <p>So, 100% of the money would have been = <math>Rs.800*100 = Rs.80,000</math></p>
4.	<p><b>Two statements S1 and S2 are given below followed by a question.</b></p> <p><b>S1: N is a multiple of 5.</b> <b>S2: Y is a multiple of 4.</b></p>	A	<p>N is 75% of Y So, <math>N = (3/4) Y</math> X is 40% of N So, <math>X = (2/5) N = (2/5) (3/4) Y =</math> <math>(3/10) Y</math></p>

<p><b><u>Question: X is 40% of N, and N is 75% of Y. N and Y are positive integers. X is a positive integer or not?</u></b></p> <p>(a) Both statements together are insufficient to answer the question.</p> <p>(b) Either statement alone is sufficient to answer the question.</p> <p>(c) Statement 1 alone is sufficient to answer the question, but Statement 2 alone is not sufficient to answer the question.</p> <p>(d) Both statements together are sufficient to answer the question, but neither statement alone is sufficient to answer the question.</p>		<p><u>Statement 1:</u> N is a multiple of 5, and <math>X = (2/5) N</math>. It means that X must be an integer, positive or negative.</p> <p><u>Statement 2:</u> Y is a multiple of 4, and <math>X = (3/10) Y</math>. It means that X may or may not be an integer.</p> <p><u>Using both statements together:</u> X must be an integer, positive or negative. So, we cannot tell for sure whether X is a positive integer or not.</p>
<p>5. <b>India celebrated its 70th Independence Day today. But are we really free? I am not sure about it. Some of us are working day &amp; night but are not happy. We have forgotten that</b></p>	<p>C</p>	<p>According to author, although most of us are progressing in our journeys but somewhere we are still not free in different contexts. So, author is trying to inspire us to get real freedom and introspect for the actual feeling freedom.</p>

<p><b>Work is a part of life not the Heart of life. Are we free? Some of us want to explore the world, experiment with challenging career moves but pressure from society is not giving us any slack. Do we have freedom of choice? Some of us are enjoying freedom and independence forgetting our old retired parents who want nothing more than our company and happiness. Is this freedom worth it? Some of us have fallen in the worst ever trap of world biggest religion which nothing but 'Consumerism. Is it ever ending?</b></p> <p><b>Idea behind sharing this small passage is not to judge anyone. I am no one to do that. Mahatma Gandhi always said very distinctly that nothing is right or wrong; it is the intent behind that act decides its fate. Since, we</b></p>		
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<p><b>all are on different journey, idea is to just motivate ourselves to take a pause, analyse, introspect and then take a call to invest our time and energy in something which makes our soul happy and which brings sustainable satisfaction. We all know that life never stops and we can keep living someone's life forever or we can choose to act and get things back in order. As this transformation is difficult, this shift can very consciously be brought in gradual manner. What seems to be the main intent of the author in the article?</b></p> <p>(a) To spread the message of continuing the pseudo free life</p> <p>(b) To extensively propagate the ideals behind consumerism, nuclear family etc.</p> <p>(c) To motivate people to understand the actual</p>		
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	<p>meaning of freedom in different context</p> <p>(d) To distract the readers and confuse them about the real purpose of life and the way to live.</p>		
6.	<p><b>If Rs. 1 is charged for each temple in state A, Rs. 2 for each temple in state B and so on, a person has to pay how much money to visit all the temples of A, B, C and D?</b></p> <p>(a) Rs.345 (b) Rs.385 (c) Rs. 455 (d) Rs. 165</p>	A	<p>Total cost = 1(A) + 2(B) + 3(C) + 4(D) = 1(20) + 2(30) + 3(15) + 4(55) = 345</p>
7.	<p><b>One-fifth of the light switches produced by a certain factory are</b></p>	B	<p>assume 1000 produced; 200 defective; 160 defective and rejected; 40 non-defective rejected by mistake;</p>

	<p><b>defective. Four-fifths of the defective switches are rejected and 1 / 20 of the non-defective switches are rejected by mistake. If all the switches not rejected are sold, what percent of the switches sold by the factory are defective?</b></p> <p>(a) 4% (b) 5% (c) 6.25% (d) 11%</p>		<p>40 defective and not rejected; 760 non-defective and not rejected. Total non-rejected and sold = 800.</p> <p>percent of the switches sold by the factory are defective = <math>40/800 \times 100 = 5\%</math></p>
<p>8.</p>	<p><b>Exactly 14% of the reporters for a certain wire service cover local politics in Country X. If 30% of the reporters who cover politics for the wire service do not cover local politics in Country X, what percent of the reporters for the wire service do not cover politics?</b></p> <p>(a) 20% (b) 42%</p>	<p>D</p>	<p>We can let the total number of reporters for the wire service = 100 and <math>n</math> = the number of reporters who cover politics. Thus <math>(100 - n)</math> reporters do not cover politics. Since 30% of the reporters who cover politics for the wire service do not cover local politics, <math>0.3n</math> who cover politics reporters do not cover local politics, but <math>0.7n</math> do and we are given that 14% of 100 reporters, i.e., 14 of</p>

	<p>(c) 44%</p> <p>(d) 80%</p>		<p>them do cover local politics. Thus, we can create the equation:</p> $0.7n = 141; n = 14/0.7 = 140/7 = 20;$ <p>So, we have 20 reporters who cover politics and hence 80 reporters or 80% of them don't cover politics.</p>
<p>9.</p>	<p><b>The greatest danger to a democracy is the increasing bureaucratization of the ruling process. As the bureaucracy takes control of virtually everything in the governance, it becomes less accountable to both the ruling party and the legislature. There is a chance that democracy will become technocracy. <u>If the above statement is true, which among the given alternatives can be inferred from the statement?</u></b></p> <p>(a) Democracy may turn into autocracy if bureaucrats are not controlled.</p> <p>(b) Bureaucracy should be controlled to ensure its accountability to both the</p>	<p>D</p>	<p>Where from is the danger to the democracy coming? The speaker says it is from "bureaucracy's less accountability to both the ruling party and the legislature". This means accountability to both the ruling party and the legislature is an important factor in democracy.</p>



	<p>ruling party and the legislature.</p> <p>(c) Technocracy is not better than democracy.</p> <p>(d) The accountability to both the ruling party and the legislature is key to democracy.</p> <p>_____</p> <p>_____</p>		
10.	<p><b>The ages of Bhakti and Neil are in the ratio of 8: 7 respectively. After 6 years, the ratio of their ages will be 19:17. What is the difference in their ages?</b></p> <p>(a) 4 years</p> <p>(b) 8 years</p> <p>(c) 10 years</p> <p>(d) None of these</p> <p>_____</p> <p>_____</p>	A	<p>Suppose the ages of Bhakti and Neil are <math>8x</math> and <math>7x</math> respectively</p> <p>After 6 years =</p> $136x + 102 = 133x + 114$ $136x - 133x = 114 - 102$ $3x = 12$ $x = 4$ <p>Present age of Bhakti = <math>8x = 8 \times 4 = 32</math></p> <p>Present age of Neil = <math>7 \times x = 7 \times 4 = 28</math></p> <p>Difference in their current age = <math>32 - 28 = 4</math> years</p>
11.	<p><b>The value of (a - m) (b - m) ... (y - m) (z - m) is</b></p>	C	<p><math>m-m=0</math>; 0 is multiplied by anything will be zero.</p>

	<p>(a) <math>m^{26} + am^{25} + abm^{24} + \dots + a.b.c. \dots z</math>                  (b) <math>m^{26} - am^{25} + abm^{24} + \dots - a.b.c. \dots z</math>                  (c) 0                  (d) Indeterminate</p>		<p>So, <math>a - m \quad b - m \quad c - m \quad \dots \quad m - m \quad \dots \quad z - m = 0 \therefore m - m = 0</math></p>
12.	<p><b>A rectangular sump of dimensions 6 m x 5 m x 4 m is to be built by using bricks to make the outer dimension 6.2 m x 5.2 x 4.2 m. Approximately how many bricks of size 20 cm x 10 cm x 5 cm are required to build the sump for storing water?</b></p> <p>(a) 1500                  (b) 3000                  (c) 15000                  (d) 30000</p>	C	<p>Volume of outer dimension of sump – volume of sump = volume needed to be built by the bricks. = <math>(6.2 \times 5.2 \times 4.2 - 6 \times 5 \times 4) = 15.408 \text{ m}^3</math>. = 15.408 m<sup>3</sup>.</p>
13.	<p><b>A thief running at 8 km/hr is chased by a policeman whose speed is 10 km/hr. If the thief is</b></p>	D	<p>Time taken by policeman to catch the thief is 3 minutes.</p>

	<p><b>100 metres ahead of the policeman, then the time required for the policeman to catch the thief will be</b></p> <p>(a) 2 minutes (b) 6 minutes (c) 10 minutes (d) 3 minutes</p>		
14.	<p><b>A student has 60% chance of passing in English and 54% chance of passing in both English and Mathematics. What is the percentage probability that he will fail in Mathematics?</b></p> <p>(a) 12 (b) 36 (c) 4 (d) 10</p>	D	<p>The possibility of the student failing in Maths when they pass in English can be found by subtracting the 54% joint probability from the 60% probability of passing in English. This leaves a 6% chance that the student passes in English but fails in maths.</p>
15.	<p><b>A table has three drawers. It is known that one of the drawers contains two silver coins, another contains two gold coins and the</b></p>	C	<p>For finding the silver coin only drawer 1 and 3 remains in consideration because the open drawer in any case cannot be the drawer that have only gold coins.</p>

	<p><b>third one contains a silver coin and a gold coin. One of the drawers is opened at random and a coin is drawn. It is found to be a silver coin. What is the probability that the other coin in the drawer is a gold coin?</b></p> <p>(a) 25 (b) 00 (c) 50 (d) 60</p>		<p>Now the probability of next coin being a gold coin = <math>1/2</math>.</p>
<p>16.</p>	<p><b>If <math>2/3</math> of the air in a tank is removed with each stroke of a vacuum pump, how many strokes does it take before less than 1 % of the original amount of air in the tank remains?</b></p> <p>(a) 2 (b) 3 (c) 4 (d) 5</p>	<p>D</p>	<p><math>2/3</math> of the air in a tank is removed with each stroke means that <math>1/3</math> of the air is left after one stroke, <math>1/3^*</math> <math>1/3</math> after two strokes and so on. Basically, after <math>n</math> strokes there will be <math>(1/3)^n</math> of the air left in the tank. The question asks about such <math>n</math> for which <math>(1/3)^n &lt; 1/100 \rightarrow 3^n &gt; 100 \rightarrow n = S</math>.</p>

17.	<p><b>The total number of ways in which letters of the world ACCOST can be arranged so that the two C's never come together will be:</b></p> <p>(a) 120 (b) 240 (c) 360 (d) 720</p>	B	<p>Number of arrangements of all letters such that the two C's are never together = <math>360 - 120 = 240</math></p>
18.	<p><b>There are two vessels A and B in which the ratio of milk and water are as 5:2 and 8:7 respectively. 14 gallons are drawn from vessel A and 15 gallons from vessel B, and are mixed in another empty vessel. What is the ratio of milk and water in it?</b></p> <p>(a) 13 : 9</p>	D	<p>Vessel A contains: 10 gallons milk + 4 gallons water</p>

	<p>(b) 13 : 11 (c) 2 : 1 (d) 18 : 11</p> <p>_____</p> <p>_____</p>		
19.	<p><b>What is the average of all the multiples of 5 from 1 to 55, including 55?</b></p> <p>(a) 25 (b) 35 (c) 30 (d) 27.5</p> <p>_____</p>	C	<p>All multiples of 5 are 5, 10, 15, 20, 25, ..... 50, 55</p> <p>Average = <math>(5 + 10 + 15 + 20 + 25 + \dots + 50 + 55)/11 = 330/11 = 30</math>.</p>
20.	<p><b>By selling 12 marbles for a rupee, a shopkeeper loses 20%. If he now decides to gain 20% in further transactions; he should sell the marbles at the rate of how many marbles for a rupee?</b></p> <p>(a) 8 (b) 6 (c) 4</p>	A	<p>80% of CP = Rs 1</p> <p>120% of CP = <math>120/80 = 6/4 = 1.5</math></p> <p>Therefore, he should sell 12 marbles for Rs 1.5 or 8 marbles for Rs 1.</p>

	(d) 3		
21.	<p><b>Arun and Shivam have certain amount of money with them. If Arun gives Rs. 40 to Shivam, then Shivam will have three times the money that is left with Arun. But if Shivam gives Rs. 10 to Arun, then Arun will have two times the money that is left with Shivam. How much money did Arun have initially?</b></p> <p>(a) Rs. 170 (b) Rs. 80 (c) Rs. 70 (d) Rs. 90</p>	C	
22.	<p><b>Lead contamination poses a serious threat to the safety of drinking water in Pennsylvania. This colourless, odourless, and tasteless metal can go undetected in water. Excessive amounts of lead place adults at higher risk for cancer, stroke, kidney disease, memory problems and high blood pressure. Lead in excessive amounts in the drinking water that mainly comes from industrial pollution and has been the major cause</b></p>	B	

<p><b>of lung cancer. Economy of Akira Island is based completely on either tourism or subsistence level of agriculture, has little or no industry. But inhabitants of the island have shown high incidence of lung Cancer in the last 10 years.</b></p> <p><b>Which of the following can be inferred from the above statements?</b></p> <p>(a) Lead in drinking water in Akira is absolutely within safe limit</p> <p>(b) Lung cancer of the inhabitants of the island must have causes other than lead in drinking water</p> <p>(c) Lead in drinking water in the water of the island must have come from various natural sources</p> <p>(d) Medical science is yet to be sure about exact reason of cancer of inhabitants of the island</p>		
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23.	<p><b>A number when divided successively by 5 and 4 leaves the remainder 2 and 3 respectively. When it is divided by 4 and 5 respectively, what are the remainders?</b></p> <p>(a) 1, 4 (b) 4, 1 (c) 3, 2 (d) None of these</p>	A	37 is divided by 4 and 5 respectively, the remainders would be 1 and 4.
24.	<p><b>Harsh, Shiva and Krishna participated in a 400m race. Harsh can defeat Shiva by 50 m and Shiva can defeat Krishna by 24 m. In the same race Harsh can defeat Krishna by what distance?</b></p> <p>(a) 76 m (b) 26 m (c) 71 m (d) 24 m</p>	C	<p>According to the question, Harsh : Shiva = 400 : 350 &amp; Shiva : Krishna = 400 : 376 ∴ Harsh : Krishna = <math>(400/350) \times (400/376) = 400/329</math> So, Harsh can defeat Krishna by <math>(400 - 329)</math>, i.e. 71 m. Hence, option (c) is the correct answer.</p>
25.	<p><b>The number of letters skipped in between adjacent letters in a series remains the same, when</b></p>	C	

	<p><b>moving from left to right.</b></p> <p><b>Which of the following series observes this rule?</b></p> <p>(a) BFKPUZ</p> <p>(b) BGLQVZ</p> <p>(c) BFJNRV</p> <p>(d) AEINRV</p>		
26.	<p><b>LMNOP, is a semi-circle with centre at R and diameter LP, LSR and RQP are also semi-circles with centres at T and U and diameters LR = RP = 1/2 LP. The ratio of perimeters of LMNOP and LSRQP is</b></p> <p>a) 0.75: 1</p> <p>b) 1: 1</p> <p>c) 1: 0.75</p> <p>d) 1.25: 1</p>	B	<p>The diameters LSR and RQP are combined equal to LP. So, the perimeters of both semi-circles combined would equal the perimeter of LMNOP. Therefore, for every value of the perimeter of M, the perimeter of N will be the same, which is why the ratio is 1:1.</p>
27.	<p><b>A man purchases two clocks A and B at a total cost of Rs. 650. He sells A with 20% profit and B at a loss of 25% and gets the same selling price for both the clocks. What are the purchasing prices of A and B respectively?</b></p> <p>a) Rs. 225; Rs. 425</p>	B	<p>Hence, the purchasing price of clock A is ₹ ₹ ₹ 250 and clock B is ₹ ₹ ₹ 400 .</p>

	b) Rs. 250; Rs. 400 c) Rs. 275; Rs. 375 d) Rs. 300; Rs. 350		
28.	<b>If 15 pumps of equal capacity can fill a tank in 7 days, then how many extra pumps will be required to fill the tank in 5 days?</b> a) 6 b) 7 c) 14 d) 21	A	Now, the number of pumps required to fill the tank in 1 day with the extra pumps is $(n + A)$ . The number of pumps required to fill the tank in 1 day is also given as 105 (from the information provided in the explanation). Therefore, the correct answer is 6.
29.	<b>Out of the three annual examinations, each with a total of 500 marks, a student secured average marks of 45% and 55% in the first and second annual examinations. To have an overall average of 60%, how many marks does the student need to secure in the third annual examination?</b> a) 450 b) 400 c) 350 d) 300	B	Hence, the student needs to secure 400 marks in the third annual examination to have an overall average of 60%.
30.	<b>Which one of the following satisfies the relationship D d a: a D D:: R r b: ?</b> a) D D A b) R R R c) b R R	C	The letters are being reversed, so the answer is BRR

	d) B B r		
31.	<p><b>The number of letters skipped in between adjacent letters in a series remains the same, when moving from left to right. Which of the following series observes this rule?</b></p> <p>(a) BFKPUZ (b) BGLQVZ (c) BFJNRV (d) AEINRV</p>	C	
32.	<p><b>The ratio of the ages of Velu and Ranjith 10 years ago was 1 : 3. The ratio of their age five years hence will be 2 : 3. Then the ratio of their present age is:</b></p> <p>(a) 5 : 3 (b) 1 : 2 (c) 3 : 5 (d) 3 : 4</p>	C	<p>10 years ago, Velu : Ranjith = <math>1x : 3x</math> Now, Velu : Ranjith = <math>x + 10 : 3x + 10</math> 5 years hence, Velu : Ranjith = <math>x + 15 : 3x + 15</math> Now, <math>x + 15 / 3x + 15 = 2/3</math> <math>3x + 45 = 6x + 30</math> <math>3x = 15</math> So, <math>x = 5</math> Then, Present age ratio, Velu : Ranjith = <math>15 : 25 = 3 : 5</math></p>
33.	<p><b><u>Statements:</u></b></p> <ul style="list-style-type: none"> <li>▪ <b>Some cows are crows.</b></li> </ul>	D	Both the conclusions are wrong.

	<ul style="list-style-type: none"> <li>▪ <b>Some crows are elephants.</b></li> </ul> <p><b>Conclusions:</b></p> <ol style="list-style-type: none"> <li>1. Some cows are elephants.</li> <li>2. All crows are elephants.</li> </ol> <p>(a) Only (1) follows (b) Only (2) follows (c) Both (1) &amp; (2) follows (d) Neither ( 1) nor (2) follows</p>		
34.	<p><b>Statements:</b></p> <ul style="list-style-type: none"> <li>▪ <b>All the actors are girls.</b></li> <li>▪ <b>All the girls are beautiful.</b></li> </ul> <p><b>Conclusions:</b></p> <ol style="list-style-type: none"> <li>1. All the actors are beautiful.</li> <li>2. Some girls are actors.</li> </ol> <p>(a) Only (1) follows (b) Only (2) follows (c) Both (1) &amp; (2) follows (d) Neither (1) nor (2) follows</p>	C	Both 1 and 2 follows

<p>35.</p>	<p><b>Farming is no longer attractive among village youths. The mindset of farmers is not easily changed to win confidence for natural farming. The labour-intensive and time-consuming nature of Zero Budget Natural Farming (ZBNF) prove to be an obstacle for making the transition to natural farming. Small farmers can afford increased labour using their family labour, but it is difficult for big farmers to get adequate labour for big farms. Some big farmers, however, innovatively use locally developed solutions to make ZBNF less labour-intensive but the implementation of such technology needs initial investment, which poses an obstacle.</b></p> <p><b><u>Based on the passage given above, the following assumptions have been made:</u></b></p>	<p>C</p>	<p>Both assumptions are correct</p>
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	<p>1. Natural farming makes sense environmentally, but may not be that viable economically.</p> <p>2. Affordable machinery and adequate finance could encourage village youth to take up natural farming.</p> <p><b>Which of the above assumptions is/are valid?</b></p> <p>(a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2</p>		
<p>36.</p>	<p><b>When Vladimir Putin came to power in his first term as the President of Russia a leading political leader who opposed his policies died of mysterious illness in prison/captivity. Hardly any observers of the regime were surprised by</b></p>	<p>D</p>	<p>The question statement highlights two things first mysterious illness and second no one was surprised. This should make you think why a political adversary of Mr. Putin goes to jail and dies due to a mysterious disease. In this situation the cartoon shows that the police have eliminated the possibility of murder. They are</p>

	<p><b>this. A cartoonist aptly depicted this situation by showing a policeman informing journalist, "We are trying figure out whether he committed suicide or died of illness." Which of the conclusions can be drawn from the information given in the passage?</b></p> <p>(a) The opposition leader did not get right medical facilities in the prison.</p> <p>(b) The opposition leader committed suicide.</p> <p>(c) The policeman is not clear about the reasons of the death of the opposition leader.</p> <p>(d) Vladimir Putin's regime was responsible for the death of the opposition leader.</p>		<p>trying to pass it as suicide or medical condition. This implies that the author wants to say that Putin's regime is responsible for the death.</p>
<p>37.</p>	<p><b>Find the largest four digit natural number N which when divided by 45, 60 and 72 leaves a remainder of 33, 48 and 60 respectively.</b></p>	<p>C</p>	<p>LCM (45, 60, 72) = 360; <math>N + 12 = 360k</math> (k-integer); <math>N = 360k - 12</math>; Largest four digit number = 9999; Largest four digit number of the form <math>360k = 9720</math></p>



	(a) 9348 (b) 9528 (c) 9708 (d) 9888		Required number $N = 9720 - 12 = 9708$ Hence, option (c).
38.	<b>The difference between a two-digit number and the number obtained by interchanging the digits is 36. What is the difference between the sum and the difference of the digits of the number if the ratio between the digits of the number is 1:2?</b>  (a) 4 (b) 8 (c) 16 (d) None of these	B	$9x = 36$ $X = 4.$ Required difference = $(2x + x) - (2x - x)$
39.	<b>Read the following information and answer the following question/s : In a cricket season, India defeated Australia twice, Pakistan defeated India twice, Australia defeated Pakistan twice, India defeated New Zealand twice and Pakistan</b>	C	New Zealand was defeated twice by India and twice by Pakistan i.e. 4 times in all. Answer is (c).

	<p><b>defeated New Zealand twice.</b></p> <p><b><u>Which country has lost maximum number of times?</u></b></p> <p>(a) India (b) Australia (c) New Zealand (d) Pakistan</p>		
40.	<p><b>A lady has a total of Rs. 75 in her purse. If the total amount she has is in denominations of 10 paisa, 25 paisa and 50 paisa coins, and the ratio of 10 paisa and 25 paisa coins is 5: 3 and that of 25 paisa and 50 paisa coins is 6: 5; what is the total number of 25 and 50 paisa coins?</b></p> <p>(a) 75 (b) 90 (c)150 (d)165</p>	D	<p>Let x, y, z be the number of 10, 25 and 50 paisa coins,</p> $10x + 25y + 50z = 7500$ <p>and <math>x = 5y/3z = 5y/6</math></p> <p>solving for y, we get =90</p> <p>SO, <math>Z = 5 \times 90 / 6 = 75</math></p> $y + z = 90 + 75 = 165$ <p>Hence, option (d).</p>
41.	<p><b>Raj has ten pairs of red, nine pairs of white and eight pairs of black shoes</b></p>	D	<p>He would have to pick one more shoe (the matching red one) to get a pair. So, the total maximum number of attempts</p>

	<p><b>in a box. If he randomly picks shoes one by one (without replacement) from the box to get a red pair of shoes to wear, what is the maximum number of attempts he has to make?</b></p> <p>(a) 27 (b) 36 (c) 44 (d) 45</p>		<p>is <math>44 + 1 = 45</math> attempts. Hence, the correct answer is (d) 45.</p>
42.	<p><b>Amit started a business by investing Rs.30,000. Rahul joined the business after some time and invested Rs.20,000. At the end of the year, profit was divided in the ratio of 2 : 1. After how many months did Rahul join the business?</b></p> <p>(a) 2 (b) 3 (c) 4 (d) 5</p>	B	<p>Let after 't' months Rahul joined the business. Hence Amit does business for 1 year and Rahul for (12 – t) months. They will share the profit in ratio <math>30000 \times 12 : 20000 \times (12 - t) = 2 : 1</math> <math>t = 3</math> months</p>
43.	<p><b>When the time in the wall-clock is 3.25 p.m., the acute angle between the</b></p>	C	<p>In a clock, the angle between two successive numbers is <math>360^\circ / 12 = 30^\circ</math>. When the time is 3.25 pm, the minute hand will be on 5 and will</p>

	<p><b>hours-hand and the minutes-hand is</b></p> <p>(a) 60° (b) 52.5° (c) 47.5° (d) 42°</p>		<p>have moved 60° from 3 and hour hand would be between 3 and 4 and as it moves 30° in 60 minutes, So, in 25 minutes, it would move 12.50. So, the difference between two hands will be</p> <p>= 60° – 12.5° = 47.5°</p>
44.	<p><b>The age of a man is three times the sum of the ages of his two sons. Five years hence, his age will be double of the sum of the ages of his sons. The father's present age is</b></p> <p>(a) 40 years (b) 45 years (c) 50 years (d) 55 years</p>	B	
45.	<p><b>In a company, 60% of the employees are men. Of these 40% are drawing more than Rs. 50,000 per year. If 36% of the total employees of the company draw more than Rs. 50,000 per year, what is the percentage of women who are drawing less than Rs. 50,000 per year?</b></p> <p>(a) 70 (b) 60 (c) 40 (d) 30</p>	A	

46.	<p><b>Kumar and Murugan bought mangoes from the market at the same price. Kumar made a profit of 20% by selling his mangoes. What must be the profit percentage earned by Murugan if he sold his mangoes at double the selling price of Kumar?</b></p> <p>(a) 40% (b) 120% (c) 140% (d) None of these</p>	C	<p>Let the price of mango = 100; Kumar sells it to 120(20% profit); Murugan needs to sell the mango's for double the selling price, it must be – 240Rupee; 140 rupees profit after Murugan bought mangos from 100 and sell it to 240.</p>
47.	<p><b>If the length of a rectangle is increased by 20% and the breadth is increased by 25%. What will be the net percentage increase in the area of the rectangle?</b></p> <p>(a) 20% (b) 25% (c) 50% (d) 40%</p>	C	<p>Area of rectangle is <math>L \times B</math>; area of length is increased by 20% means <math>120L/100</math>; area of breath increased by 25% means <math>125B/100</math>; New area = <math>(120L * 150B)/100*100 = 1.5</math> times i.e., 50% increase</p>
48.	<p><b>A report consists of 10 sheets each consisting of 50 lines and each such line consists of 60 characters.</b></p>	A	<p>Total no. of character is <math>10*50*60</math> <math>\Rightarrow 10*50*60 = x*30*25</math>; <math>X=40</math>, totally 40 pages needed</p>

	<p><b>This report is retyped into sheets each of 30 lines, each having 25 characters. The increase in the number of sheets is?</b></p> <p>(a) 40 (b) 70 (c) 50 (d) 10</p>		
49.	<p><b>If the price of a rice is increased by 25%, then by how much percent a house holder should reduce his consumption of the rice so that his expenditure does not increase?</b></p> <p>(a) 25% (b) 20% (c) 33.33% (d) 10%</p>	B	<p>Let assume the price of 1 kg rice is 100 rs; its increased to 125rs; To finding how much rice for 100rs is <math>100 \times 100 / 125 = 800</math>grams of rice. so I should reduce my consumption of 200g of rice i.e., 20%</p>
50.	<p><b>Harsh, Shiva and Krishna participated in a 400m race. Harsh can defeat Shiva by 50 m and Shiva can defeat Krishna by 24 m. In the same race Harsh</b></p>	C	<p>According to the question, Harsh : Shiva = 400 : 350 &amp; Shiva : Krishna = 400 : 376 <math>\therefore</math> Harsh : Krishna = <math>(400/350) \times (400/376) = 400/329</math> So, Harsh can defeat Krishna by <math>(400 - 329)</math>, i.e. 71 m.</p>

	<p><b>can defeat Krishna by what distance?</b></p> <p>(a) 76 m (b) 26 m (c) 71 m (d) 24 m</p>		<p>Hence, option (c) is the correct answer.</p>
51.	<p><b>If <math>x</math> is a positive integer such that <math>2x + 12</math> is perfectly divisible by <math>x</math>, then the number of possible values of <math>x</math> is</b></p> <p>(a) 2 (b) 5 (c) 6 (d) 12</p>	C	<p>If <math>2x+12</math> is perfectly divisible by <math>x</math>, then 12 must be divisible by <math>x</math>. Hence, there are six possible values of <math>x</math> : (1,2,3,4,6,12) If <math>x = 1</math> then <math>2*1+12 = 14</math> is divisible by 1 If <math>x = 2</math> then <math>2*2+12 = 18</math> is divisible by 2 If <math>x = 3</math> then <math>2*3+12 = 18</math> is divisible by 3 If <math>x = 4</math> then <math>2*4+12 = 20</math> is divisible by 4 If <math>x = 6</math> then <math>2*6+12 = 24</math> is divisible by 6 If <math>x = 12</math> then <math>2*12+12 = 36</math> is divisible by 12</p>
52.	<p><b>An outgoing batch of students wants to construct an auditorium worth Rs 42,00,000 for their college. If the teachers offer to pay 50% more than the student's</b></p>	A	<p>Let's assume the students contributed <math>X</math> Rs; So, the teachers contributed <math>3X/2</math> Rs And external benefactor contributed <math>9X/2</math> Rs; Summation of all contribution = <math>42,00,000 = 7X</math>; Or, <math>X</math></p>

	<p><b>contribution and an external benefactor give three times the teachers contribution, how much should the teachers donate?</b></p> <p>(a) 9,00,000 Rs (b) 7,35,000 Rs (c) 8,40,000 Rs (d) 6,50,000 Rs</p>		<p>= 6,00,000 Rs; Hence, teachers contributed 9,00,000 Rs</p>
<p>53.</p>	<p><b>The distribution of the benefits and costs of innovation has been the subject of a reasonably large number of articles within the agricultural economics literature. Beginning with Cochrane (1958, 1993), some economists have argued that agricultural innovation is a treadmill for farmers with an implicit (sometimes explicit) notion that technological change in agriculture has made farmers worse off. In Cochrane's analysis, only</b></p>	<p>B</p>	<p>Inference 1 is incorrect and Inference 2 is correct.</p>



<p><b>the earliest adopters could benefit from new technology, and their benefits were fleeting. Eventually, the price-depressing effects of increased output would offset the gains. Those who were slow to adopt or did not adopt would lose. He characterized the process as a treadmill that farmers must tread to survive but that involved unhappy consequences for agriculture.</b></p> <p><b><u>Which of the following is/are the most rational and logical</u></b></p> <p><b><u>Inference/Inferences that can be made from the passage?</u></b></p> <ol style="list-style-type: none"><li>1. The traditional methods of farming were better than new technological methods.</li><li>2. Balancing the demand and supply of agricultural products</li></ol>		
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	<p>may protect farmers from losses.</p> <p><b>Select the correct answer using the code given below.</b></p> <p>(a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2</p>		
54.	<p><b><u>Which one of the following statements best implies the suggestion given by the author of the passage?</u></b></p> <p>(a) Focus on the distribution of technology and better price protection would help tackle the challenges posed by innovation.</p> <p>(b) Innovation in agriculture should not be encouraged as it causes losses to farmers.</p> <p>(c) New set of studies is required to re-evaluate the impact of technology on agriculture.</p> <p>(d) Giving up on technological innovation would save agriculture from negative consequences.</p>	A	Option (a) is correct.

55.	<p><b>One of the major shifts facing business organizations today involves the growing importance of experiential consumption. Alvin Toffler, in his book Future Shock, was the first to envision experience industries as emerging sectors of the future economy. Pine and Gilmore extended this notion by describing a progression of economic value from commodities to goods to services to experiences. The authors argued that this transition, from a service economy to an experience economy, means that as services become more commoditized, perceptions of competitive advantage diminish. Therefore, all actions of the organization must contribute to delivering experiential offerings that engage</b></p>	B	Inference 1 is incorrect and Inference 2 is correct.

<p><b>customers in unique and memorable ways.</b></p> <p><b><u>Which of the following is/are the most rational and logical Inference/Inferences that can be made from the passage?</u></b></p> <ol style="list-style-type: none"> <li>1. The companies should not focus on the quality of the product, but the quality of the experience related to the product.</li> <li>2. Organizations now need to invest more in creativity for providing a unique memorable experience to customers.</li> </ol> <p><b>Select the correct answer using the code given below.</b></p> <p>(a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2</p>	
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56.	<p><b>Two statements S1 and S2 are given below followed by a question.</b></p> <p><b>S1: A is 80% of B, and B is 40% of C.</b></p> <p><b>S2: A is 55% more than B, and B is 50% less than C.</b></p> <p><b>Question: What is the value of A in terms of C?</b></p> <p><b>Which one of the following is correct in respect of the above Statements and the Question?</b></p> <p>(a) S1 alone is sufficient to answer the Question</p> <p>(b) S2 alone is sufficient to answer the Question</p> <p>(c) Either S1 alone or S2 alone is sufficient to answer the Question</p> <p>(d) Both S1 and S2 together are sufficient to answer the Question</p>	C	<p>Either anyone statement is enough to find the answer</p>
57.	<p><b>The owner of a Television shop charges his customer 16% more than the cost price. If a customer paid Rs.17,400 for a Television,</b></p>	C	<p>We can assume Cost Price to be Rs.100.</p> <p>Then, selling price would be Rs.116 (16% more is charged on the cost price).</p>

	<p><b>then what was the cost price of the television?</b></p> <p>(a) 13,000 (b) 14,000 (c) 15,000 (d) 16,000</p>		<p>So, if in reality selling price is Rs.17,400 then cost price would be Rs.15,000.</p> <p>We could use unitary method to find the value.</p> <p>S.P. ——— C.P. Rs.116 ——— Rs.100 Rs.1 ———Rs. (100/116) Rs.17,400 ———Rs. (100/116) * Rs.17,400 which gives C.P. as Rs.15,000</p>
58.	<p><b>The difference between 42% of a number and 28% of the same number is 210. What is 75% of that number?</b></p> <p>(a) 775 (b) 1050 (c) 1125 (d) 1500</p>	C	<p>The difference in percentage is 42%-28% = 14%.</p> <p>So, using unitary method, If 14% of a number is 210, then 1% of that number will 210/14 which is 15.</p> <p>Therefore, 100% of the number would be 1500.</p> <p>Question is to find out 75% of the number which is nothing but 75% of 1500 which gives answer as 1125.</p>
59.	<p><b>Once a group of 500 people were attending a seminar. Suddenly the speaker stopped and decided to do a group activity. He started giving</b></p>	B	<p>Author is clearly advocating the concept of sustainable happiness, which according to him lies in the bonds we have amongst us.</p>

<p><b>each person a balloon. Each person was then asked to write their name on it using a marker pen. Then all the balloons were collected and put in another room. The people were then let into that room and asked to find the balloon which had their name written on it within 5 minutes. Everyone was frantically searching for their name, colliding with each other, pushing around others and there was utter chaos. At the end of 5 minutes no one could find their own balloon. Then, the speaker asked each person to randomly collect a balloon and give it to the person whose name was written on it. Within minutes everyone had their own balloon.</b></p> <p><b>The speaker then began, “this is happening in our lives. Everyone is frantically looking for</b></p>		
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<p><b>happiness all around, not knowing where it is. Our happiness lies in the happiness of other people. Give them their happiness; you will get your own happiness. And this is the purpose of human life...the pursuit of happiness.”</b></p> <p><b><u>According to the passage, which is the most suitable way of life style?</u></b></p> <ol style="list-style-type: none"> <li>1. Living a self-centred life with absolute focus on self-progress and materialistic improvements.</li> <li>2. Promoting the culture of sustainable happiness and inclusive growth</li> <li>3. Enhanced focus on social life along with personal monetary gains</li> </ol> <p><b>Select the correct answer using the codes below:</b></p> <p>(a) 1 only (b) 2 only (c) 1 and 3 only</p>	
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	(d) 2 and 3 only		
60.	<p><b>Which of the following is the most suited topic for the seminar?</b></p> <p>(a) Life and sustainable happiness</p> <p>(b) Path to personal prosperity</p> <p>(c) Personal growth is all that matters</p> <p>(d) Happiness is a nothing but a myth</p>	A	Author is guiding the reader to understand the concept of social happiness and inclusive growth, which according to him will bring sustainable happiness.
61.	<p><b>A person starts from a point A and travels 3 km eastwards to B and then turns left and travels thrice that distance to reach C. He again turns left and travels five times the distance he covered between A and B and reaches his destination D. The shortest distance between the starting point and destination is</b></p> <p>(a) 18 km</p> <p>(b) 16 km</p> <p>(c) 15 km</p> <p>(d) 12 km</p>	C	A person starts from a point A and travels 3 km eastwards to B and then turns left and travels thrice that distance to reach C. He again turns left and travels five times the distance he covered between A and B and reaches his destination D. The shortest distance between the starting point and the destination is: 15 km.
62.	<p><b>The distribution of 1,00,000 tourists who visited India during a particular year is shown in</b></p>	D	Tourists from Japan = $20/100$ (100000) = 20000 % below 39 years = $10 + 10 = 20\%$ $\therefore$ % of Tourists from

	<p><b>the given charts. Based on this, the number of Japanese tourists below the age of 39 who visited India in the year concerned is</b></p> <p>(a) 10,000 (b) 8,000 (c) 6,000 (d) 4,000</p>		<p>Japan below 39 years = <math>\frac{20}{100}</math> (20000) = 4000</p>
63.	<p><b>What is the maximum number of pieces of 5 cm x 5 cm x 10 cm cake that can be cut from a big cake of 5 cm x 30 cm x 30 cm size?</b></p> <p>(a) 10 (b) 15 (c) 18 (d) 30</p>	C	<p>The larger cake's dimensions are 6 times the smaller cake's two of the dimensions (30 cm divided by 5 cm results in 6). Thus, in two directions, you can cut 6 pieces each time, and you multiply these to find out the total number of pieces (6 pieces * 3 times = 18 pieces)</p>
64.	<p><b>How many five-digit prime numbers can be formed by using the digits 1, 2, 3, 4 and 5 without repetition of digits?</b></p> <p>(a) Zero</p>	A	<p>The digit sum of numbers made by using the digits will be <math>1 + 2 + 3 + 4 + 5 = 15</math>. So, if the digits are not repeated then such number will always be divisible by 3. Hence, there will be no such prime number</p>

	(b) One (c) Two (d) Three		
65.	<b>A shopkeeper sold an article offering a discount of 5 % and earned a profit of 14 %. What would have been the percentage of profit earned if no discount was offered?</b>  (a) 19% (b) 9% (c) 20% (d) 15%	C	Let the cost price be Rs. 100. Then the selling price= Rs. 114. Now, let the marked price be Rs. x, then $95x/100 = 114$ or $x = \text{Rs. } 120$ . If no discount was offered, the selling price = Rs. 120 The cost price = Rs. 100. So, the percentage of profit = 20% Hence, option (c) is the correct answer.
66.	<b>A bag contains 20 balls. 8 balls are green, 7 are white and 5 are red. What is the minimum number of balls that must be picked up from the bag blind-folded (without replacing any of it) to be assured of picking at least one ball of each colour?</b>  (a) 4	D	A bag contains 20 balls. 8 balls are green, 7 are white and 5 are red. We have to pick at least one ball of each colour. Now consider this: Even if we pick 8 balls, there's a probability that all of them may be green. Hence, we must pick more than 8 balls for sure. Now, even if we pick 8 + 7 balls, i.e. 15 balls, there's a probability that all of them may be green and white only, with no red ball picked at all. Hence,

	(b) 7 (c) 11 (d) 16		taking the worst possible scenario in consideration we must pick $15 + 1 = 16$ balls to be sure that atleast one ball of all the three colours is picked.
67.	<b>Which one of the following has a greater perimeter than the rest?</b> (a) A square with an area of 36 sq. cm (b) An equilateral triangle with a side of 9 cm (c) A rectangle with 10 cm as length and 40 sq. cm as area (d) A circle with a radius of 4 cm	C	(a) Side of the square = $\sqrt{36} = 6$ cm Perimeter of the square = $4(6) = 24$ cm (b) Perimeter of the triangle = $9 + 9 + 9 = 27$ cm (c) Area of the rectangle = $40 \text{ lb} = 40 \text{ b} = 40/10 = 4$ Perimeter = $2(l + b) = 2(4 + 10) = 28$ cm (d) Perimeter of the circle = $2\pi r = 2(3.14)(4) = 25.12$ cm Clearly, Perimeter of the rectangle is maximum.
68.	<b>In an examination, every candidate took Physics or Mathematics or both. 65.8% took Physics and 59.2% took Mathematics. The total number of candidates was 2000. How many candidates took both Physics and Mathematics?</b> (a) 750 (b) 500 (c) 250 (d) 125	B	Number of candidates who took both Physics and Mathematics = $(65.8\% + 59.2\% - 100\%) * 2000$ ; Number of candidates who took both Physics and Mathematics = $(125\% - 100\%) * 2000$ ; Number of candidates who took both Physics and Mathematics = $25\% * 2000$ ; Number of candidates who took both Physics and Mathematics = $0.25 * 2000$ ; Number of candidates who took both Physics and Mathematics = 500; Therefore, the correct answer is 500, which aligns with option (b).

69.	<p><b>A club has 108 members. Two thirds of them are men and the rest are women. All members are married except for 9 women members. How many married women are there in the club?</b></p> <p>(a) 20 (b) 24 (c) 27 (d) 30</p>	C	<p>So there are 36 women in the club. We also know that 9 of these women are unmarried, so there are <math>36 - 9 = 27</math> married women in the club. Therefore, there are 27 married women in the club.</p>
70.	<p><b>In a certain code, MARCH is written as OCTEJ, how is RETURN written in that code?</b></p> <p>(a) TFUVSM (b) QGSTQM (c) TGVWTP (d) TGRVSO</p>	C	<p>Position of each letter of the 1st word has been incremented by two alphabets in the 2nd word.</p>
71.	<p><b>We have heard a good deal in recent years about the declining importance of the two major political parties. It is the mass media, we are told, that</b></p>	A	<p>The fact is that it is observed that two political parties have lost their importance to a great deal and then the author argues that these two political parties have spent a great deal of money in the campaigns ... so</p>

<p><b>decide the outcome of elections, not the power of the parties. But it is worth noting that no independent or third-party candidate has won any important election in recent years, and in the last nationwide campaign, the two major parties raised and spent more money than ever before in support of their candidates and platforms. It seems clear that reports of the imminent demise of the two-party system are premature at best.</b></p> <p><b><u>With reference to above passage, following assumptions have been made:</u></b></p> <p>(a) The amount of money raised and spent by a political party is one valid criterion for judging the influence of the party.</p> <p>(b) A significant increase in the number of third-party candidates would be evidence of a decline in the</p>	<p>it could be that these two parties have lost their importance is still at premature stage.</p>
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	<p>importance of the two major parties.</p> <p>(c) The two-party system has contributed significantly to the stability of the American political structure.</p> <p>(d) The mass media tend to favour an independent or third-party candidate over a candidate from one of the two major parties.</p>		
72.	<p><b>Which of the following is the most suited topic for the seminar?</b></p> <p>(a) Life and sustainable happiness</p> <p>(b) Path to personal prosperity</p> <p>(c) Personal growth is all that matters</p> <p>(d) Happiness is a nothing but a myth</p>	A	<p>Author is guiding the reader to understand the concept of social happiness and inclusive growth, which according to him will bring sustainable happiness</p>
73.	<p><b>If <math>P \div R + Q</math> is true, then what is the relation of B with A?</b></p> <p>(a) Mother</p> <p>(b) Daughter</p> <p>(c) Aunt</p> <p>(d) None of these</p>	D	

74.	<p><b>Which of the following is correct about the unit digit of <math>(98987)^{98987}</math>?</b></p> <p>(a) Odd number (b) Even number (c) Irrational number (d) Zero</p>	A	<p><math>7^1 = 7</math>; <math>7^2 = 9</math> (49); <math>7^3 = 3</math> (343); <math>7^4 = 1</math> (2401); AND THE CYCLE REPEATS. So, 7 power anything would result odd unit digit.</p>
75.	<p><b>If goods are purchased for Rs. 180 and one-third of them sold at a loss of 10%, then at what profit percentage should the rest be sold to obtain an overall profit percentage of 5%?</b></p> <p>(a) 15% (b) 8% (c) 10% (d) 12.5%</p>	D	<p>Cost price of <math>\frac{1}{3}</math> of the goods is = 60; it was sold at 54(at 10% loss); the total good should be sold at 189(at 5% profit); <math>189 - 54 = 135</math>; <math>135 - 120 = 15</math>(need to take profit from 120). <math>\frac{15}{120} \times 100 = 12.5\%</math>. the seller need to sell the remaining <math>\frac{2}{3}</math> goods at 12.5% profit to make overall profit of 5%</p>
76.	<p><b>Three men including a senior citizen, board a train where 6 seats are vacant. Two of these 6 seats are reserved, one for women and one for senior citizens. A senior citizen may or may not sit on reserve seat. In how many different ways can the 6 seats be occupied by these three passengers?</b></p> <p>(a) 36 (b) 60 (c) 72 (d) 120</p>	A	<p>There is no woman in the group. So, one seat out of 6 seats cannot be used by them.</p> <p>Therefore, there are 5 seats out of which 1 seat is reserved for senior citizens.</p> <p>If senior citizen sits on reserved seat, then – 2 other men can occupy 4 vacant seats in 4, P2 ways, i.e. 12 ways.</p>



77.	<p><b>A longest rod is placed in a room of length 15m and breadth 6m. What can be the height of the room if length of the rod is 19m?</b></p> <p>(a) 11m (b) 15m (c) 10m (d) None of these</p>	C	<p>The longest rod in the room is its diagonal.</p> <p>So, <math>L^2 + B^2 + H^2 = D^2</math></p> <p><math>15^2 + 6^2 + H^2 = 19^2</math></p> <p><math>H^2 = 361 - (225 + 36) = 100</math></p> <p><math>H = 10.</math></p>
78.	<p><b>Vasanth walks for 2 km in the north direction, turns right and walks 4 km, before again turning right and walking 9 km. Then, he takes a right turn and walks 4 km. How far is he from the starting point?</b></p> <p>(a) 9 km (b) 6 km (c) 7 km (d) 8 km</p>	C	<p>from the starting point Vasanth is in south direction of 7km</p>
79.	<p><b>15 litre of 20% sulphuric acid, 12 litre of 80% sulphuric acid is added.</b></p>	A	<p>Percentage strength of the acid in the mixture = (Quantity (volume) of the acid in the mixture )/(Total volume)× 100; by solving the above formula</p>

	<p><b>What is the strength of the acid in the mixture now?</b></p> <p>(a) 57%</p> <p>(b) 40%</p> <p>(c) 74%</p> <p>(d) 63%</p>		with the questions we get 57.78% of sulphuric acid is in the mixture
80.	<p><b>Statements:</b></p> <ol style="list-style-type: none"> <li>1. Some cars are bikes.</li> <li>2. All buses are bikes.</li> <li>3. No bike is train.</li> </ol> <p><b>Conclusions:</b></p> <ol style="list-style-type: none"> <li>1. Some cars are buses.</li> <li>2. All trains being buses is a possibility.</li> <li>3. No car is a bus.</li> </ol> <p><b>Select your answer using the codes given below.</b></p> <p>(a) Only I follows</p> <p>(b) Either I or III follows</p> <p>(c) All follow</p> <p>(d) None of these</p>	B	from the above conclusions we can infer that either 1 or 3 follows the statement
81.	<p><b>From Bangalore railway station a train leaves every three hours. An</b></p>	A	After the departure of 2pm train and 140 minutes the announcement says, the next train will departure

	<p><b>announcement at that railway station said that the previous train from New Delhi had left 140 minutes ago and the next train will leave at 17:00 hours. At what time was this announcement made?</b></p> <p>(a) 16:20 hours (b) 15:10 hours (c) 15:50 hours (d) 17:00 hours</p>		<p>from 5pm. So the exact time in 2pm + 140minutes = 4:20pm</p>
82.	<p><b>What is the probability that a number is chosen randomly from the set of all natural numbers till 200 is not a prime number?</b></p> <p>(a) 6/25 (b) 1/4 (c) 3/4 (d) 23/100</p>	D	<p>There are 46 prime numbers between 1-200, so, <math>46/200 = 23/100</math>.</p>
83.	<p><b>The product of two real numbers is a rational number. If one of them is a rational number, the other number must be</b></p> <p>(a) A rational number</p>	D	<p>To creating a rational number by multiplication we have these more than one possibility to obtain it</p> <p>1. Rational number = rational number * rational number</p>

	(b) An irrational number (c) A natural number (d) Cannot be determined due to insufficient data		2. Rational number = rational number * natural number  3. Rational number (not equals) => rational number * irrational number
84.	<b>How many such pairs of letters are there in the word ARCHITECTURE, each of which has as many letters between them as they have between them in the English alphabet?</b>  (a) 6 (b) 5 (c) 3 (d) None of the above	B	A _ C, H _ I, T _ U, R _ T and E _ C are five such pairs.
85.	<b>Study the following information carefully and answer the question that follows:</b>  <b>Point T is 5 m south of point U. Point U is 5 m east of point V. Point V is 3 m south of point W. Point W is 5 m west of point X. Point X is 5 m</b>	D	option (d) is the correct answer

	<p><b>south of point Y. Point Z is 10 m east of point Y. How far and in which direction is point U from point Z?</b></p> <p>(a) 25 m, South-East (b) 18 m, North (c) 15 m, North-East (d) 12.8 m, South-West</p>		
86.	<p><b>The average weight of the students in three classes 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> of a class are 45 kg, 55 kg and 65 kg respectively. If the number of students in these three sections is 35, 45 and 75 respectively, then find the average weight of the all class.</b></p> <p>(a) 51 kg (b) 49 kg (c) 57 kg (d) 54 kg</p>	C	Average of entire class = Total weight of all the students/ No. of Students
87.	<p><b>In a certain code language 'GOOGLE' is written as 'HNPFMD'. How</b></p>	C	+1-1+1-1+1-1+1-1+1-1

	<p><b>would 'GERMINATION' be written in that code?</b></p> <p>(a) NATGERMINOI (b) GAETRIMINON (c) HDSLJOBSJMPP (d) IMREGNNOITA</p>		
88.	<p><b>Vasanth, Karthick and Balaji run along a circular track of 3600 meters at respective speeds of 18 km/hr, 27 km/hr and 36 km/hr. If they start at the same point and at the same time in the same direction, when will they meet again at the starting point?</b></p> <p>(a) They will meet 36 minutes after they started. (b) They will meet 24 minutes after they started. (c) They will meet 42 minutes after they started. (d) None of these</p>	B	option (b) is the right answer
89.	<p><b>A TV consumes 4 units of electricity in 1hr and a bulb consumes 18 units of</b></p>	D	<p>Total time period = 80hrs Rate of electricity consumption of TV = 4units/hr</p>

	<p><b>electricity in 6 hours. How many units of electricity will both TV and bulb consume in 10 days, if they run 8 hours a day?</b></p> <p>(a) 280 units (b) 150 units (c) 480 units (d) 560 units</p>		<p>Rate of electricity consumption of bulb = <math>18\text{units}/6\text{hrs} = 3\text{units}/\text{hr}</math> Total electricity consumption when both are on together = <math>7\text{units}/\text{hr}</math> So, total electricity unit consumed in 80hrs will be <math>80\text{hrs} * 7\text{units}/\text{hr} = 560\text{units}</math></p>
<p>90.</p>	<p><b>Instructions for the following 3 (three) items: Read the following information and answer the following question/s:</b></p> <ol style="list-style-type: none"> <li>On a book rack seven books one each on Psychology, Hindi, English, Sociology, Economics, Finance and Accountancy are placed one above the other.</li> <li>On top is the book on Sociology.</li> <li>Finance is immediately below Sociology. Finance is immediately above</li> </ol>	<p>C</p>	<p>Sociology is on top of all books, Finance is below Sociology. Accountancy is below Finance. Economics is above Psychology and Psychology is above Hindi. Economics is not in the middle. So, in the middle lies the seventh book i.e. English.</p>

	<p>Accountancy. Economics is immediately above Psychology but is not in the middle.</p> <p>4. Psychology is immediately above Hindi.</p> <p><b><u>Economics is between which of the following books?</u></b></p> <p>(a) Accountancy and Finance (b) Psychology and Hindi (c) English and Psychology (d) Psychology and Sociology</p>		
91.	<p><b>When the time in the wall-clock is 3.25 p.m., the acute angle between the hours-hand and the minutes-hand is</b></p> <p>(a) 60° (b) 52.5° (c) 47.5° (d) 42°</p>	C	<p>In a clock, the angle between two successive numbers is <math>360^\circ/12 = 30^\circ</math>. When the time is 3.25 pm, the minute hand will be on 5 and will have moved <math>60^\circ</math> from 3 and hour hand would be between 3 and 4 and as it moves <math>30^\circ</math> in 60 minutes, So, in 25 minutes, it would move 12.50. So, the difference between two hands will be <math>= 60^\circ - 12.5^\circ = 47.5^\circ</math></p>
92.	<p><b>The age of a man is three times the sum of the ages of his two sons. Five years</b></p>	B	



	<p><b>hence, his age will be double of the sum of the ages of his sons. The father's present age is</b></p> <p>(a) 40 years (b) 45 years (c) 50 years (d) 55 years</p>		
93.	<p><b>In a company, 60% of the employees are men. Of these 40% are drawing more than Rs. 50,000 per year. If 36% of the total employees of the company draw more than Rs. 50,000 per year, what is the percentage of women who are drawing less than Rs. 50,000 per year?</b></p> <p>(a) 70 (b) 60 (c) 40 (d) 30</p>	A	
94.	<p><b>A trader fixed the price of an article in such a way that by giving a rebate of 10% on the price fixed, he made a profit of 15%. If the cost of the article is Rs. 72, the price fixed on it, is</b></p> <p>(a) Rs. 82.80 (b) Rs. 90.00</p>	C	

	(c) Rs. 92.00 (d) Rs. 97.80		
95.	<p><b>Saravanan can buy a certain number of books for Rs. 1050. If the price of the books increases by Rs. 15, the number of books he can buy for the same amount decreases by 9. Find the original price of the books.</b></p> <p>(a) Rs. 31 (b) Rs. 33 (c) Rs. 35 (d) Rs. 38</p>	C	<p>let take total number of books is x and cost of each book is y, then <math>xy=1050</math>.</p> <p>Then <math>(x+15)(y-9)=1050</math>. Substituting the equation we can get the correct answer.</p>
96.	<p><b>The probability that Vasanth will get job in Google is <math>\frac{4}{7}</math> and the probability that he will not get job in IBM is <math>\frac{2}{5}</math>. If the probability of getting at least one job is <math>\frac{4}{5}</math>, what is the probability that he will get both jobs?</b></p> <p>(a) <math>\frac{8}{45}</math> (b) <math>\frac{31}{45}</math> (c) <math>\frac{14}{45}</math> (d) <math>\frac{13}{35}</math></p>	D	<p>Probability in Google = <math>P(A) = \frac{4}{7}</math> Probability in IBM = <math>P(B) = 1 - \frac{2}{5} = \frac{3}{5}</math> Probability of getting at least one job = <math>P(A \cup B) = \frac{4}{5}</math> We know, <math>P(A \cup B) = P(A) + P(B) - P(A \cap B)</math> Or <math>\frac{4}{5} = \frac{4}{7} + \frac{3}{5} - P(A \cap B)</math> Or <math>P(A \cap B) = \frac{4}{7} + \frac{3}{5} - \frac{4}{5}</math> Or <math>P(A \cap B) = \frac{13}{35}</math></p>

<p>97.</p>	<p><b>In an election 20% voters did not cast their votes, while 20% of the votes casted became invalid and remaining votes are valid. The first candidate got 34% of the registered votes (i.e. of the initial total votes) and the remaining votes went to the second candidate. If second candidate lost by 10000 votes, then how many votes in the election were valid?</b></p> <p>(a) 3,12,000 (b) 1,60,000 (c) 1,13,000 (d) 2,34,000</p>	<p>B</p>	<p>80% people casted their votes; 20% invalid means only 64% votes casted were valid, 2<sup>nd</sup> candidate lost the elections by 4% then total valid votes is 160000.</p>
<p>98.</p>	<p><b>The Indian Cricket team consists of 16 players. It includes 2 wicket keepers and 5 bowlers. In how many ways can a cricket eleven be selected if we have to select 1 wicket keeper and at least 4 bowlers?</b></p> <p>(a) 840 (b) 952</p>	<p>D</p>	<p>We are to choose 11 players including 1 wicket keeper and 4 bowlers or, 1 wicket keeper and 5 bowlers. Number of ways of selecting 1 wicket keeper, 4 bowlers and 6 other players = <math>{}^2C_1 * {}^5C_4 * {}^9C_6 = 840</math> Number of ways of selecting 1 wicket keeper, 5 bowlers and 5 other players = <math>{}^2C_1 * {}^5C_5 * {}^9C_5 = 252</math></p>

	(c) 1040 (d) 1092		=> Total number of ways of selecting the team = $840+252= 1092$
99.	<b>In a regular week, there are 5 working days and for each day, the working hours are 8. A man gets Rs. 2.40 per hour for regular work and Rs. 3.20 per hours for overtime. If he earns Rs. 432 in 4 weeks, then how many hours does he work for?</b>  (a) 172 (b) 165 (c) 175 (d) 162	C	Let us assume the man works overtime for t hours. Now, working hours in 4 weeks = $(5 \times 8 \times 4) = 160$ . Hence, total hours of work = $(160 + 15) = 175$ .
100.	<b>One of the greatest historical problems is the ideal of constructing a society based on reason and avoiding dogma as a means of maintaining order within a society. It just so happens that we always find ourselves in a society that avoids rationality to directly</b>	D	Option A is incorrect because it goes against one of the arguments made in the passage, Option B is incorrect because it overreaches the terms laid out in the passage, Option C is incorrect because no such fact about of leaders "being failures in the eyes of history" can be inferred from the information given above. Option D is correct because it reiterates one of the points made in the argument

<p><b>inform its political actions, in the name of securing peace and stability. There are only two ways in which this problem can be solved. First, by appointing leaders that have the ability to act rationally even when surrounded by a political setup based on dogma, few leaders historically have shown the calibre to reconcile such dichotomies. Second, by dismantling the institutions constructed on dogma by a public act of transformation, the principal risk of such movement is that it can lapse into an act of absolution, anarchy and blood ridden internal strife, hurting a nation even more.</b></p> <p><b><u>According to the passage, which of the following is correct?</u></b></p> <p>(a) Only great leaders, with their wisdom and intellect, can create rational societies</p>	<p>that only leaders cannot be relied upon to make rational societies.</p>
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	<p>(b) Great men are not born but made, through the processes of historical development</p> <p>(c) All great leaders are failures in the eyes of history, because of their inability to create rational societies.</p> <p>(d) We cannot rely only on leaders to create rational societies, because it's a process where the public also has a part to play</p>		
101.	<p><b>If Rs. 3006 is to be divided among Karthick, Surendhar, and Vignesh, such that Surendhar gets Rs. 152 less than Vignesh and Vignesh gets Rs. 68 less than Karthick, then what amount will Ram get?</b></p> <p>(a) Rs. 1054</p> <p>(b) Rs. 878</p> <p>(c) Rs. 918</p> <p>(d) Rs. 657</p>	B	<p><math>x + y + z = 3006</math>; Or <math>x + (x + 152) + (x + 220) = 3006</math>; <math>x = 878</math>, Hence, option (b) is the right answer</p>

102.	<p><b>Ganesh and Dinesh start simultaneously from A towards B. When Ganesh has covered 27 km, Dinesh doubles his speed and 6 hours later he overtakes Ganesh. What was Dinesh's original speed if the speed of Ganesh is 4.5 km/hr?</b></p> <p>(a) 2 km/hr (b) 3 km/hr (c) 6 km/hr (d) 4 km/hr</p>	B	<p>Based on the above question we can find that Ganesh has covered 27km in 4.5km/h means Ganesh covered 27km in 6 hours, after 6 hours he also covers another 27km, totally 54km is the total distance, Dinesh has to cover 54km in 12hrs but his speed should be double in second half of the first half. Going from option method we can find that 3km/hr in first 6hrs and 6km/hr in next 6hr will give the total km of 54km.</p>
103.	<p><b>A man arranges to pay off a debt of Rs.3600 in 40 annual instalments which form an arithmetic progression, when 30 of the instalments are paid, he dies leaving 1 / 3rd of debt unpaid. What is then the value of the first instalment?</b></p> <p>(a) 51 (b) 50 (c) 52 (d) 53</p>	A	<p>Eqn. 1 – eqn. 2 <math>20 = T_{40} - T_{30}</math> nth term of AP <math>T_n = a + (n-1)d</math> <math>20 = a + 39d - (a + 29d)</math> <math>20 = 10d</math> where d is the common difference of AP <math>2 = d</math>; <math>a = 51</math>.</p>
104.	<p><b>A number is multiplied by six; then its decimal point</b></p>	B	<p>Let's do these two things to 100. Multiplying 100 by 6 yields 600; moving the decimal point three places</p>

	<p><b>is moved to the left by three spaces. This is the same as what percent of the number?</b></p> <p>(a) 3/100 % (b) 3/5 % (c) 3/50 % (d) 6 %</p>		<p>to the left changes 600, or 600.0, to 0.60. This means that the new number is 0.60% , or 3/5 %, of the original number.</p>
<p>105.</p>	<p><b>There is a difference in how commercial agents and economic agents perceive productivity. For commercial agents, productivity is a standalone concept that has little interactive value with a background that is more or less nonessential for such productivity. For economic agents, however, productivity can only make sense if it is linked to all possible factors within a milieu, the material product that is received at the end of the process is not merely equal to its material value but of is social, political and ecological value.</b></p> <p><b><u>According to the passage, which among the following is advocated as a better definition of productivity, from the perspective of a society?</u></b></p> <p>(a) Commercial definition of productivity, as perceived by the commercial agent</p>	<p>D</p>	



	(b) Economic division of productivity, as perceived by the economic agent (c) Both (a) and (b) (d) Neither (a) nor (b)		
106.	<b>A solid cube is painted black on two of its opposite faces and is cut into 343 pieces. how many small pieces have no paint?</b> (a) 245 (b) 255 (c) 98 (d) 97	A	Cube root of 343= 7; That means each side of the cube is divided into 7 squares.  The side painted has an area of $7*7=49$ ; There are 2 sides like that, so total area painted is $49*2= 98$ squares. $343-98 = 245$ , therefore the number of squares unpainted is 245.
107.	<b>10 kg of a mixture contains 30% sand and 70% clay. In order to make the mixture contain equal quantities of clay and sand how much of the mixture is to be removed and replaced with pure sand?</b> (a) 20/7 (b) 25/7 (c) 19/7 (d) 23/7	A	$1.4X = 4$ ; $X=20/7$ .
108.	<b>The Indian Cricket team consists of 16 players. It includes 2 wicket keepers and 5 bowlers. In how</b>	D	We are to choose 11 players including 1 wicket keeper and 4 bowlers  or, 1 wicket keeper and 5 bowlers.

	<p><b>many ways can a cricket eleven be selected if we have to select 1 wicket keeper and at least 4 bowlers?</b></p> <p>(a) 840 (b) 952 (c) 1040 (d) 1092</p>		<p>Number of ways of selecting 1 wicket keeper, 4 bowlers and 6 other players = <math>{}^2C_1 * {}^5C_4 * {}^9C_6 = 840</math></p> <p>Number of ways of selecting 1 wicket keeper, 5 bowlers and 5 other players = <math>{}^2C_1 * {}^5C_5 * {}^9C_5 = 252</math></p> <p>=&gt; Total number of ways of selecting the team = <math>840 + 252 = 1092</math></p>
109.	<p><b>In a regular week, there are 5 working days and for each day, the working hours are 8. A man gets Rs. 2.40 per hour for regular work and Rs. 3.20 per hours for overtime. If he earns Rs. 432 in 4 weeks, then how many hours does he work for?</b></p> <p>(a) 172 (b) 165 (c) 175 (d) 162</p>	C	<p>Let us assume the man works overtime for t hours. Now, working hours in 4 weeks = <math>(5 \times 8 \times 4) = 160</math>. Hence, total hours of work = <math>(160 + 15) = 175</math>.</p>
110.	<p><b>One-fifth of the light switches produced by a certain factory are defective. Four-fifths of</b></p>	B	<p>assume 1000 produced; 200 defective; 160 defective and rejected; 40 non-defective rejected by mistake; 40 defective and not rejected; 760</p>

	<p><b>the defective switches are rejected and 1 / 20 of the non-defective switches are rejected by mistake. If all the switches not rejected are sold, what percent of the switches sold by the factory are defective?</b></p> <p>(a) 4% (b) 5% (c) 6.25% (d) 11%</p>		<p>non-defective and not rejected. Total non-rejected and sold = 800. percent of the switches sold by the factory are defective = <math>40/800 \times 100 = 5\%</math></p>
<p>111.</p>	<p><b>Constitutional reforms are usually understood as changes to existing constitutional law and practice. They are necessary when the parameters on which the life of the society are based are inadequate and constitute a burden to the effective functioning of the State, or when there is a need to resolve conflict or to restore State structures that have collapsed as a result of an internal conflict or aggression. As a consequence, reform of</b></p>	<p>B</p>	<p><u>Option (b) is correct:</u> It is given in the passage “reform of constitutional law takes place in different contexts, i.e. in the aftermath of a conflict where a new constitution to establish democracy is used to construct a sustainable peace; or in established democracies to advance reforms and promote social justice”. So constitutional reforms are necessary to promote “social justice” and it can be implied that ‘compulsory right to education’ is part of social justice. So, this statement is correct.</p>

<p><b>constitutional law takes place in different contexts: former autocratic forms of government transitioning to democracy; in the aftermath of a conflict where a new constitution to establish democracy is used to construct a sustainable peace; or in established democracies to advance reforms and promote social justice.</b></p> <p><b><u>Which one of the following is best implied in the passage?</u></b></p> <p>(a) Constitutional reform is necessary only in the case when there is collapse of state structure due to internal conflict between stakeholders.</p> <p>(b) Constitutional reforms may be necessary to provide compulsory rights, such as right to education to every section of society.</p> <p>(c) Independent judiciary is a bulwark to establish democracy and promote sustainable peace</p>		
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	<p>when the state is undergoing internal conflict.</p> <p>(d) Constitutional reform in every society has ensured transition from dictatorship to democracy and promoted social justice.</p>		
112.	<p><b>Constitutional reforms are usually understood as changes to existing constitutional law and practice. They are necessary when the parameters on which the life of the society are based are inadequate and constitute a burden to the effective functioning of the State, or when there is a need to resolve conflict or to restore State structures that have collapsed as a result of an internal conflict or aggression. As a consequence, reform of constitutional law takes place in different contexts: former autocratic forms of government transitioning to democracy; in the aftermath of a conflict where a new constitution to establish democracy is used to construct a sustainable peace; or in established democracies to advance reforms and promote social justice. <u>With reference to the above passage, the following assumptions have been made:</u></b></p>	A	<p>Assumption (1) is correct and Assumption (2) is Incorrect</p>

	<p>1. One of the goals of constitutional reforms maybe to reshape the State order by means of promoting the idea of welfare state.</p> <p>2. There is no chance of dictatorship in society which is protected by constitutional norms and values. Which of the above assumptions is/are valid?</p> <p>(a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2</p>		
113.	<p><b>The output of a factory is increased by 10% to keep up with rising demand. To handle the holiday rush, this new output is increased by 20% by approximately what percent would the output of the factory now have to be decreased in order to restore the original output?</b></p> <p>(a) 20 (b) 24 (c) 22 (d) 18</p>	B	<p>Percentage Change = (New - Old)/Old = about -25%.</p>

114.	<p><b>We must remember that there are always good reasons to be a racist, colourist, communalist, casteist or misogynist. A decision not to give into these prejudices is not a judgment of reason and rationality alone; it is also an ethical judgment which depends on how we allocate value to anything. Ironically, reason and rationality have always played a central role in promoting prejudices against color, caste, religion, sexuality, gender and other cultures.</b></p> <p><b><u>Which one of the following is the most logical and rational inference that can be made from the above passage?</u></b></p> <p>(a) A rational and objective mind will never be pre judgemental towards race, color, caste, gender.</p> <p>(b) In our social architecture patriarchal values are the</p>	C	<p><u>Option (c) is correct:</u> The passage mentions “A decision not to give into these prejudices is not a judgment of reason and rationality alone; it is also an ethical judgment which depends on how we allocate value to anything”. So, it can be inferred that one’s sound ethical values and moral principles along with reason and rationality may not let him/her to give into any kind of prejudices.</p>
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	<p>sole reason to be a racist, colourist or even misogynist.</p> <p>(c) A rational and reasonable mind which believes in values and moral principles may be able to avoid prejudices against race, color, caste, and gender.</p> <p>(d) Any kind of preconceived notion and even discrimination based on colour, caste, gender is violative of right to equality and unlawful.</p>		
115.	<p><b>From a squad of 21 players in Indian women's cricket team, 11 have to be chosen for the semi-final match. 4 of the seniors were given rest and 3 were injured. If Jemimah Rodrigues and Megha Singh are already in the team, in how many ways can the team be formed?</b></p> <p>(a) 220 (b) 364 (c) 2002 (d) None of these</p>	A	<p>Out of 21 players, 4 seniors are in rest and 3 are injured. In total, 7 will not be chosen for the team. And already 2 women are included. Hence only 9 women are needed out of 12 women. So, number of ways that the team can be formed = <math>{}^{12}C_9 = 220</math></p>
116.	<p><b>The percentage of profit earned by selling an item for Rs. 2484 is equivalent to the percentage of loss</b></p>	C	<p>Since the profit and loss percentages are the same, the amount gained and lost would be the same.</p> <p>SP = 120% of CP</p>



	<p><b>incurred by selling the same at Rs. 2116. What is the selling price of the article if the shopkeeper needs to make 20% profit?</b></p> <p>(a) 2300 (b) 2576 (c) 2760 (d) 2990</p>		<p><math>SP = 1.2 \times 2300 = 2760</math></p>
117.	<p><b>Balu increased the radius of a cylindrical utensil by 50%. By what percent can he expect the volume of water poured to be increased?</b></p> <p>(a) 120 (b) 75 (c) 150 (d) 125</p>	D	<p>New radius = <math>1.5r</math> New Volume = <math>\pi(1.5r)^2h = 2.25\pi r^2h</math> Volume increment = <math>1.25 = 125\%</math></p>
118.	<p><b>Performance trends reveal that urban learner always secure better grades than their rural counterparts. It is not calibre that affects their performance, but the resources and opportunities available to them. Again, we cannot say that teaching is not a motivating profession. There are truly passionate</b></p>	C	<p>In the passage Author mention that grades in urban are better not because rural learners are lack of calibre but it is due to lack of basic facilities.</p>

	<p><b>teachers out there to make a difference. However, poor remuneration and inadequate training are discouraging. Technology, on its part, has the potential to positively affect the quality of education, and also to break the digital divide plaguing our system.</b></p> <p><b><u>Which of the following best inferred from the passage?</u></b></p> <p>(a) Rural learner has a lack of calibre due to inadequate training of teachers.</p> <p>(b) It's the government duty to provide teacher better salary and adequate training</p> <p>(c) Urban learner gets better facilities than Rural learners</p> <p>(d) For achieving a quality education learners must migrate to Urban Areas.</p>		
119.	<p><b>When the time in the wall-clock is 3.25 p.m., the acute angle between the hours-hand and the minutes-hand is</b></p>	C	<p>In a clock, the angle between two successive numbers is <math>360^\circ/12 = 30^\circ</math>. When the time is 3.25 pm, the minute hand will be on 5 and will have moved <math>60^\circ</math> from 3 and hour</p>

	(a) 60° (b) 52.5° (c) 47.5° (d) 42°		hand would be between 3 and 4 and as it moves 30° in 60 minutes, So, in 25 minutes, it would move 12.50. So, the difference between two hands will be = $60^\circ - 12.5^\circ = 47.5^\circ$
120.	<b>The age of a man is three times the sum of the ages of his two sons. Five years hence, his age will be double of the sum of the ages of his sons. The father's present age is</b>  (a) 40 years (b) 45 years (c) 50 years (d) 55 years	B	
121.	<b>Sixty percent of the rats included in an experiment were female rats. If some of the rats died during an experiment and 70 percent of the rats that died were male rats, what was the ratio of the death rate among the male rats to the death rate among the female rats?</b>  (a) 7: 2 (b) 7: 3 (c) 2: 7 (d) 3: 7	A	<u>Death rates</u> Male = $0.7a/0.4x$ ; Female = $0.3a/0.6x$ . Ratio of death rates among males and females = $0.7a/0.4x \div 0.6x/0.3a$ $= 0.7/0.2 = 7/2$

122.	<p><b>How many positive integers less than 100,000 and divisible by 125 can be formed using the digits 0, 1, 2, 5 and 8, if repetition is allowed?</b></p> <p>(a) 24 (b) 69 (c) 79 (d) 75</p>	D	<p>Divisible by 125: Last 3 digit should be divisible by 125. 125, 250, 500 are the only 3 digit numbers can be formed with above condition; for four digit number <math>4(1, 2, 5, 8) * 3 = 12</math> numbers can be formed; for five digit number Using the above method we can say totally 60 numbers i.e., 4 digits can be in 1st place and 5 digits can be in 2<sup>nd</sup> place, <math>4*5 = 20</math>. <math>20*3(125,250,500) = 60</math>. Totally <math>60 + 12 + 3 = 75</math> numbers can be formed.</p>
123.	<p><b>How many prime numbers are there in between the natural numbers of 100 and 200?</b></p> <p>(a) 20 (b) 21 (c) 22 (d) 23</p>	B	<p>The list of prime numbers between 100-200 is given below- 101, 103, 107, 109, 113, 127, 131, 137, 139,149,151,157, 163, 167, 173, 179, 181, 191, 193, 197 and 199. Therefore, there are a total of 21 prime numbers between 100 to 200.</p>
124.	<p><b>A teacher conducted a test in his class. Among the students who passed</b></p>	C	<p>Before Narayanan 14 persons are there(without narayanan), After Narayanan 18 persons are</p>

	<p><b>the test, Narayanan was ranked 15th from the top and 19th from the last. Seven boys did not participate in the test and twelve students failed the test. How many students were there in the class?</b></p> <p>(a) 50 (b) 51 (c) 52 (d) 53</p>		<p>there(without narayanan). <math>14+18=32</math> students are there (without narayanan). <math>33(\text{with narayanan}), 33 + 7 + 12 = 52.</math></p>
125.	<p><b>. In a certain code language 'CRYSTAL' is written as 'YRCSLAT'. How would 'CONTROL' be written in that code?</b></p> <p>(a) LCOORNT (b) LRNCOTO (c) CNRLOTO (d) NOCTLOR</p>	D	<p>The middle letter remains unaltered in the code and remain letters are exchanged with opposite letter</p>
126.	<p><b>If <math>6^{2019}</math> is divided by 10, then what is the remainder?</b></p> <p>(a) 2 (b) 4 (c) 6 (d) 8</p>	C	<p>Cyclicity of '6' is 1 so, 6 power any number will be the unit digit of 6</p>

127.	<p><b>If <math>15 \times 14 \times 13 \times \dots \times 3 \times 2 \times 1 = [4^m] \times n</math> where <math>m</math> and <math>n</math> are positive integers, then what is the maximum value of <math>m</math>?</b></p> <p>(a) 7 (b) 6 (c) 5 (d) 4</p>	C	<p><math>1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9 \times 10 \times 11 \times 12 \times 13 \times 14 \times 15</math> can be written as <math>1 \times 3 \times 5 \times 3 \times 7 \times 9 \times 5 \times 11 \times 3 \times 13 \times 14 \times 15 \times [4^5]</math>. The answer is 5</p>
128.	<p><b>How many three odd consecutive prime numbers are there?</b></p> <p>(a) None exist (b) 1 (c) 2 (d) 3</p>	B	<p>3, 5, 7 are the only three consecutive odd natural numbers that are prime.</p>
129.	<p><b>What is the unit digit in the expansion of <math>[(57242)^{9 \times 7 \times 5 \times 3 \times 1}] + (97531)^{5 \times 7 \times 2 \times 4 \times 2}</math>?</b></p> <p>(a) 2 (b) 3 (c) 4 (d) 7</p>	B	<p>Unit digit of <math>(57242)^{9 \times 7 \times 5 \times 3 \times 1}</math> is 2 and unit digit of <math>(97531)^{5 \times 7 \times 2 \times 4 \times 2}</math> is 1; <math>2 + 1 = 3</math>.</p>

130.	<p><b>For any choices of values of X and Y, the 6-digit number of the form <math>XYXYXY</math> is divisible by</b></p> <p>(a) 3 only (b) 5 only (c) Both A and B (d) None</p>	A	<p><math>XYXYXY</math> is divisible by 3, 7, 13 &amp; 37.</p>
131.	<p><b>Malnutrition most commonly occurs between the ages of six months and two years. This happens despite the child's food requirements being less than that of an older child. Malnutrition is often attributed to poverty, but it has been found that even in households where adults eat adequate quantities of food, more than 50 per cent of children-under-five do not consume enough food. The child's dependence on someone else to feed him/her is primarily responsible for the malnutrition. Very often the mother is working and</b></p>	C	<p>There is a catch in option (a) – regular does not mean ‘enough’ and ‘adequate’. (c) is more appropriate. The passage talks primarily about raising awareness about child’s actual food needs; and then any one can satisfy them.</p>

	<p><b>the responsibility of feeding the young child is left to an older sibling. It is therefore crucial to increase awareness regarding the child's food needs and how to satisfy them.</b></p> <p><b>According to the passage, malnutrition in children can be reduced</b></p> <p>a) if the children have regular intake of food. b) after they cross the age of five. c) if the food needs of younger children are known. d) if the responsibility of feeding younger children is given to adults.</p>		
132.	<p><b>Malnutrition most commonly occurs between the ages of six months and two years. This happens despite the child's food requirements being less than that of an older child. Malnutrition is often attributed to poverty, but it has been found that even in households where</b></p>	D	Both are extreme statements.



<p><b>adults eat adequate quantities of food, more than 50 per cent of children-under-five do not consume enough food. The child's dependence on someone else to feed him/her is primarily responsible for the malnutrition. Very often the mother is working and the responsibility of feeding the young child is left to an older sibling. It is therefore crucial to increase awareness regarding the child's food needs and how to satisfy them.</b></p> <p><b>According to the author, poverty is not the main cause of malnutrition, but the fact that</b></p> <ol style="list-style-type: none"><li>1. taking care of younger ones is not a priority for working mothers.</li><li>2. awareness of nutritional needs is not propagated by the</li></ol>		
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	<p>Public Health authorities.</p> <p><b>Select the correct answer using the code given below:</b></p> <p>a) 1 only b) 2 only c) Both 1 and 2 d) Neither 1 nor 2</p>		
133.	<p><b>Four friends, A, B, C and D distribute some money among themselves in such a manner that A gets one less than B, C gets 5 more than D, D gets 3 more than B. Who gets the smallest amount?</b></p> <p>a) A b) B c) C d) D</p>	A	<p>Solution: a) S1 – A= B-1 S2 – C=D+5 S3 – D = B+3 So, C &gt; D &gt; B &gt; A</p>
134.	<p><b>Five cities P, Q, R, S and T are connected by different modes of transport as follows:</b></p> <p><b>P and Q are connected by boat as well as rail.</b></p> <p><b>S and R are connected by bus and boat.</b></p>	A	<pre> P ---boat/rail--- Q ----Air--- T               v Boat               v Rail/Bus               v R ----boat/bus--- S                     </pre>

	<p><b>Q and T are connected by air only.</b></p> <p><b>P and R are connected by boat only.</b></p> <p><b>T and R are connected by rail and bus.</b></p> <p><b>Which mode of transport would help one to reach R starting from Q, but without changing the mode of transport?</b></p> <p>a) Boat b) Rail c) Bus d) Air</p>		
<p>135.</p>	<p><b>Read the following statements and answer the four items that follow:</b></p> <p><b>Five cities P, Q, R, S and T are connected by different modes of transport as follows:</b></p> <p><b>P and Q are connected by boat as well as rail.</b></p> <p><b>S and R are connected by bus and boat.</b></p> <p><b>Q and T are connected by air only.</b></p> <p><b>P and R are connected by boat only.</b></p> <p><b>T and R are connected by rail and bus.</b></p> <p><b>Read the following statements and answer</b></p>	<p>B</p>	<p>Because the node at R leads to S from where there is no other way. So, one has to return to R in any possible way.</p> <pre> P---boat/rail---Q----Air---T             Boat             Rail/Bus       R-----boat/bus---S </pre>

	<p>If a person visits each of the places starting from P and gets back to P, which of the following places must he visit twice?</p> <p>a) Q b) R c) S d) T</p>		
136.	<p><b>Read the following statements and answer the four items that follow:</b></p> <p><b>Five cities P, Q, R, S and T are connected by different modes of transport as follows:</b></p> <p><b>P and Q are connected by boat as well as rail.</b></p> <p><b>S and R are connected by bus and boat.</b></p> <p><b>Q and T are connected by air only.</b></p> <p><b>P and R are connected by boat only.</b></p> <p><b>T and R are connected by rail and bus.</b></p> <p><b>Read the following statements and answer</b></p> <p><b>Which one of the following pairs of cities is connected by any of the routes directly without going to any other city?</b></p>	D	

	<p>a) P and T b) T and S c) Q and R d) None of these</p>		
137.	<p><b>Read the following statements and answer the four items that follow:</b></p> <p><b>Five cities P, Q, R, S and T are connected by different modes of transport as follows:</b></p> <p><b>P and Q are connected by boat as well as rail.</b></p> <p><b>S and R are connected by bus and boat.</b></p> <p><b>Q and T are connected by air only.</b></p> <p><b>P and R are connected by boat only.</b></p> <p><b>T and R are connected by rail and bus.</b></p> <p><b>Read the following statements and answer</b></p> <p><b>Between which two cities among the pairs of cities given below are there maximum travel options available?</b></p> <p>a) Q and S b) P and R</p>	B	

	<p>c) P and T d) Q and R</p>		
138.	<p><b>Examine carefully the following statements and answer the three items that follow:</b></p> <p><b>Out of four friends A, B, C and D,</b></p> <p><b>A and B play football and cricket,</b></p> <p><b>Band C play cricket and hockey,</b></p> <p><b>A and D play basketball and football,</b></p> <p><b>C and D play hockey and basketball.</b></p> <p><b>Who does not play hockey?</b></p> <p>a) D b) C c) B d) A</p>	D	
139.	<p><b>Examine carefully the following statements and answer the question:</b></p> <p><b>Out of four friends A, B, C and D,</b></p> <p><b>A and B play football and cricket,</b></p>	C	

	<p><b>Band C play cricket and hockey,</b></p> <p><b>A and D play basketball and football,</b></p> <p><b>C and D play hockey and basketball.</b></p> <p><b>Who plays football, basketball and hockey?</b></p> <p>a) D b) C c) B d) A</p>		
140.	<p><b>Examine carefully the following statements and answer the question</b></p> <p><b>Out of four friends A, B, C and D,</b></p> <p><b>A and B play football and cricket,</b></p> <p><b>Band C play cricket and hockey,</b></p> <p><b>A and D play basketball and football,</b></p> <p><b>C and D play hockey and basketball.</b></p> <p><b>Which game do B, C and D play?</b></p> <p>a) Basketball b) Hockey c) Cricket d) Football</p>	B	
141.	<p><b>Read the following passage and answer the question.</b></p>	B	

<p><b>YOUR' answers to these items should be based on the passage only.</b></p> <p><b>Passage</b></p> <p><b>Financial markets in India have acquired greater depth and liquidity over the years. Steady reforms since 1991 have led to growing linkages and integration of the Indian economy and its financial system with the global economy. Weak global economic prospects and continuing uncertainties the in international financial markets therefore, have had their impact on the emerging market economies. Sovereign risk concerns, particularly in the Euro area, affected financial markets for the greater part of the year, with the contagion of Greece's sovereign debt problem spreading to India and other economies by way of higher-than-normal levels</b></p>		
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<p><b>of volatility. The funding constraints in international financial markets could impact both the availability and cost of foreign funding for banks and corporates. Since the Indian financial system is bank dominated, banks' ability to withstand stress is critical to overall financial stability. Indian banks, however, remain robust, notwithstanding a decline in capital to risk-weighted assets ratio and a rise in nonperforming asset levels in the recent past. Capital adequacy levels remain above the regulatory requirements. The financial market infrastructure continues to function without any major disruption. With further globalization, consolidation, deregulation, and diversification of the financial system, the banking business may</b></p>		
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<p><b>become more complex and riskier. Issues like risk and liquidity management and enhancing skill therefore assume greater significance.</b></p> <p><b>According to the passage, the financial markets in the emerging market economies including India had the adverse impact in recent years due to</b></p> <ol style="list-style-type: none"><li>1. weak global economic prospects.</li><li>2. uncertainties in the international financial markets.</li><li>3. sovereign risk concerns in the Euro area.</li><li>4. bad monsoons and the resultant crop loss.</li></ol> <p><b>Select the correct answer using the code given below:</b></p> <ol style="list-style-type: none"><li>a) 1 and 2 only</li><li>b) 1, 2 and 3</li><li>c) 2 and 3 only</li></ol>		
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	d) 2, 3 and 4		
142.	<p><b>Read the following passage and answer the question.</b></p> <p><b>YOUR' answers to these items should be based on the passage only.</b></p> <p><b>Passage</b></p> <p><b>Financial markets in India have acquired greater depth and liquidity over the years. Steady reforms since 1991 have led to growing linkages and integration of the Indian economy and its financial system with the global economy. Weak global economic prospects and continuing uncertainties the in international financial markets therefore, have had their impact on the emerging market economies. Sovereign risk concerns, particularly in the Euro area, affected financial markets for the greater part of the year, with the</b></p>	C	

<p><b>contagion of Greece's sovereign debt problem spreading to India and other economies by way of higher-than-normal levels of volatility. The funding constraints in international financial markets could impact both the availability and cost of foreign funding for banks and corporates. Since the Indian financial system is bank dominated, banks' ability to withstand stress is critical to overall financial stability. Indian banks, however, remain robust, notwithstanding a decline in capital to risk-weighted assets ratio and a rise in nonperforming asset levels in the recent past. Capital adequacy levels remain above the regulatory requirements. The financial market infrastructure continues to function without any major disruption. With further globalization,</b></p>		
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	<p><b>consolidation, deregulation, and diversification of the financial system, the banking business may become more complex and riskier. Issues like risk and liquidity management and enhancing skill therefore assume greater significance.</b></p> <p><b>The Indian financial markets are affected by global changes mainly due to the</b></p> <p>a) increased inflow of remittances from abroad.                  b) enormous increase in the foreign exchange reserves.                  c) growing global linkages and integration of the Indian financial markets.                  d) contagion of Greece's sovereign debt problem.</p>		
143.	<p><b>There are five hobby clubs in a college viz, photography, yachting, chess, electronics and gardening. The gardening</b></p>	A	<p>Take the LCM of 2,3,4,5 and 6. You get 60 i.e. all the groups meet on the same day on every 60th day. Hence, only three times.</p>

	<p><b>group meets every second day, the electronics group meets every third day, the chess group meets every fourth day, the yachting group meets every fifth day and the photography group meets every sixth day. How many times do all the five groups meet on the same day within 180 days?</b></p> <p>a) 3 b) 5 c) 10 d) 18</p>		
144.	<p><b>A, B, C, D and E belong to five different cities P, Q, R, Sand T (not necessarily in that order). Each one of them comes from a different city. Further it is given that:</b></p> <p>1. B and C do not belong to Q.</p> <p>2. B and E do not belong to P and R.</p>	D	<p>From the statements you can construct the following and then figure out what belongs to what.</p> <p>Q – B, C, D, E A P – B, E C R – B, E, A, C D S – A, C E T- A, C, D, E B</p>

	<p>3. A and C do not belong to R, Sand T.</p> <p>4. D and E do not belong to Q and T.</p> <p><b>Which one of the following statements is not correct?</b></p> <p>a) C belongs to P b) D belongs to R c) A belongs to Q d) B belongs to S</p>		
145.	<p><b>Seven men, A, B, C, D, E, F and G are standing in a queue in that order. Each one is wearing a cap of a different colour like violet, indigo, blue, green, yellow, orange and red. D is able to see in front of him green and blue, but not violet. E can see violet and yellow, but not red. G can see caps of all colours other than orange. If E is wearing an indigo coloured cap, then the colour of the cap worn by F is</b></p> <p>a) Blue</p>	C	

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b) Violet		
c) Red		
d) Orange		

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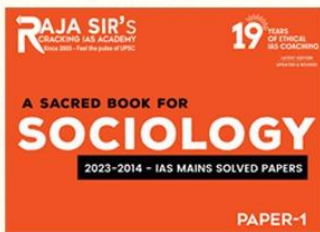
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