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| Here is the collection of some really nice **logical & aptitude test questions** for interview or quiz preparation. Answers of the **logical** & **aptitude questions** are provided for the reference at the bottom of this article.  1. A man decides to buy a nice horse. He pays $60 for it, and he is very content with the strong animal. After a year, the value of the horse has increased to $70 and he decides to sell the horse. But already a few days later he regrets his decision to sell the beautiful horse, and he buys it again. Unfortunately he has to pay $80 to get it back, so he loses $10. After another year of owning the horse, he finally decides to sell the horse for $90. What is the overall profit the man makes?  2. A bus run at 100 km/hr top speed. It can carry a maximum of 6 persons. If speed of bus decreases in fixed proportion with increase in number of person, find speed when three person are traveling in bus.  3. A man wanted to enter an exclusive club but did not know the password that was required. He waited by the door and listened. A club member knocked on the door and the doorman said, "twelve." The member replied, "six" and was let in. A second member came to the door and the doorman said, "six." The member replied, "three" and was let in. The man thought he had heard enough and walked up to the door. The doorman said, "ten" and the man replied, "five". But he was not let in. What should have he said?  4. There are 20 pieces of bread to divide among 20 people. A man eats 3 pieces, woman eats 2 pieces and a child eats half piece of bread. Tell the correct combination of men, women and children so that they are 20 people in total and everyone gets the bread. Note that a man cannot eat less than 3 or more than 3. A woman cannot eat less than 2 or more than 2 and the child cannot eat less than half or more than half piece of the bread. You have to tell there are how may are men, women and children in those 20 people.  5. A cube of side 4cm is painted with 3 colors red, blue and green in such a way that opposite sides are painted in the same color. This cube is now cut into 64 cubes of equal size.   1. How many have at least two sides painted in different colors. 2. How many cubes have only one side painted. 3. How many cubes have no side painted. 4. How many have exactly one side not painted.   6. How many squares are there on a normal chessboard?  7. Three people picked 65 apples altogether. At the first tree they each picked the same number of apples. At the second tree they each picked 3 times as many as they picked at the first tree. When they finished at the third tree, the group had 5 times as many apples as they had when they started at that tree. At the fourth tree the group picked just 5 apples. How many apples did each person pick at the first tree?  8. 4 criminals are caught and are to be punished. The Judge allows them to be freed if they can solve a puzzle. If they do not, they will be hung. They agreed. The 4 criminals are lined up on some steps (shown in picture). They are all facing in the same direction. A wall seperates the fourth man from the other three.  Logical Test Puzzle  To Summarise   * Man 1 can see men 2 and 3. * Man 2 can see man 3. * Man 3 can see none of the others. * Man 4 can see none of the others.   The criminals are wearing hats. They are told that there are two white hats and two black hats. The men initially don't know what colour hat they are wearing. They are told to shout out the colour of the hat that they are wearing as soon as they know for certain what colour it is.   * They are not allowed to turn round or move. * They are not allowed to talk to each other. * They are not allowed to take their hats off.   Now the question is "Who is the first person to shout out and why?"  9. At a party, everyone shook hands with everybody else. There were 66 handshakes. How many people were at the party?  10. You have to measure exactly 4 liters of water, but you only have a 3-liter bottle and a 5-liter bottle. How do you do it?   |  | | --- | |  |   **Answers**  1. Consider the trade-story as if it describes two separate trades, where: In the first trade, the man buys something for $60 and sells it again for $70, so he makes a profit of $10. In the second trade, the man buys something for $80 and sells it again for $90, so he makes again a profit of $10.  Conclusion: The man makes an overall profit of $10 + $10 = $20.  You can also look at the problem as follows:  The total expenses are $60 + $80 = $140 and the total earnings are $70 + $90 = $160. The overall profit is therefore $160 - $140 = $20.  2. 100 Km/hr because that is the top speed of the bus.  3. The man had to reply the number of characters in the word the Doorman was asking. He should have replied "Three" instead of "Five".  4. There are 5 women, 1 man and 14 children.  5. Here are the answers.   1. Cubes that have at least two sides painted in different colours are 24 + 8 = 32. 2. Cubes that have only one side painted are 24. 3. Cubes that have no side painted = 8. 4. Cubes that have exactly one side not painted = 0.   6. There are actually 204 squares on a chessboard. Surprised! Here is the explanation. There are 64 (1x1) squares. There are 49 (2x2) squares. There are 36 (3x3) squares. There are 25 (4x4) squares. There are 16 (5x5) squares. There are 9 (6x6) squares. Then there are 4 (7x7) squares and 1 big 8x8 square. So, there are a total of 204 squares on a normal chessboard.  7. One Apple  8. Man 1 will shout first. If Man1 will not shout then Man 2 surely shouts.  Reason: Man 1 can see the other two criminals? hats. If the hats are same color then he told his hat is opposite color of remaining two hats. So he shouts first. If Man 1 does not shout, it means that the hats of Man 2 and Man 3 are of different color. So Man 2 sees the color of Man 3 hat and he tells that the color of his hat is opposite to the color of Man 3 Hat.  9. With two people, there is one handshake. With three people, there are three handshakes. With four people, there are six handshakes. In general, with n+1 people, the number of handshakes is the sum of the first n consecutive numbers: 1+2+3+...+n. Since this sum is n(n+1)/2, we need to solve the equation n(n+1)/2 = 66. This is the quadratic equation n2+n-132 = 0. Solving for n, we obtain 11 as the answer and deduce that there were 12 people at the party.  10. Fill the 3-litre bottle and pour it into the empty 5-litre bottle. Fill the 3-litre bottle again, and pour enough to fill 5-litre bottle. This leaves exactly 1 litre in the 3-litre bottle. Empty the 5-litre bottle; pour the remaining 1 litre from the 3-litre bottle into the 5-litre bottle. Fill the 3-litre bottle and pour it into the 5-litre bottle. The 5-litre bottle now has exactly 4 litres. | |
| Aptitude Questions 1.If 2x-y=4 then 6x-3y=? (a)15 (b)12 (c)18 (d)10  Ans. (b) 2.If x=y=2z and xyz=256 then what is the value of x?  (a)12 (b)8 (c)16 (d)6  Ans. (b) 3. (1/10)18 - (1/10)20 = ? (a) 99/1020 (b) 99/10 (c) 0.9 (d) none of these Ans. (a) 4.Pipe A can fill in 20 minutes and Pipe B in 30 mins and Pipe C can empty the same in 40 mins.If all of them work together, find the time taken to fill the tank (a) 17 1/7 mins (b) 20 mins (c) 8 mins (d) none of these Ans. (a) 5. Thirty men take 20 days to complete a job working 9 hours a day.How many hour a day should 40 men work to complete the job? (a) 8 hrs (b) 7 1/2 hrs (c) 7 hrs (d) 9 hrs Ans. (b) 6. Find the smallest number in a GP whose sum is 38 and product 1728 (a) 12 (b) 20 (c) 8 (d) none of these Ans. (c) 7. A boat travels 20 kms upstream in 6 hrs and 18 kms downstream in 4 hrs.Find the speed of the boat in still water and the speed of the water current? (a) 1/2 kmph (b) 7/12 kmph (c) 5 kmph (d) none of these Ans. (b) 8. A goat is tied to one corner of a square plot of side 12m by a rope 7m long.Find the area it can graze? (a) 38.5 sq.m (b) 155 sq.m (c) 144 sq.m (d) 19.25 sq.m Ans. (a) 9. Mr. Shah decided to walk down the escalator of a tube station. He found that if he walks down 26 steps, he requires 30 seconds to reach the bottom. However, if he steps down 34 stairs he would only require 18 seconds to get to the bottom. If the time is measured from the moment the top step begins to descend to the time he steps off the last step at the bottom, find out the height of the stair way in steps? Ans.46 steps. 10. The average age of 10 members of a committee is the same as it was 4 years ago, because an old member has been replaced by a young member. Find how much younger is the new member ? Ans.40 years. 11. Three containers A, B and C have volumes a, b, and c respectively; and container A is full of water while the other two are empty. If from container A water is poured into container B which becomes 1/3 full, and into container C which becomes 1/2 full, how much water is left in container A? 12. ABCE is an isosceles trapezoid and ACDE is a rectangle. AB = 10 and EC = 20. What is the length of AE? Ans. AE = 10. 13. In the given figure, PA and PB are tangents to the circle at A and B respectively and the chord BC is parallel to tangent PA. If AC = 6 cm, and length of the tangent AP is 9 cm, then what is the length of the chord BC? Ans. BC = 4 cm. 15 Three cards are drawn at random from an ordinary pack of cards. Find the probability that they will consist of a king, a queen and an ace. Ans. 64/2210. 16. A number of cats got together and decided to kill between them 999919 mice. Every cat killed an equal number of mice. Each cat killed more mice than there were cats. How many cats do you think there were ? Ans. 991. 17. If Log2 x - 5 Log x + 6 = 0, then what would the value / values of x be? Ans. x = e2 or e3. 18. The square of a two digit number is divided by half the number. After 36 is added to the quotient, this sum is then divided by 2. The digits of the resulting number are the same as those in the original number, but they are in reverse order. The ten's place of the original number is equal to twice the difference between its digits. What is the number? Ans. 46 19.Can you tender a one rupee note in such a manner that there shall be total 50 coins but none of them would be 2 paise coins.? Ans. 45 one paisa coins, 2 five paise coins, 2 ten paise coins, and 1 twenty-five paise coins. 20.A monkey starts climbing up a tree 20ft. tall. Each hour, it hops 3ft. and slips back 2ft. How much time would it take the monkey to reach the top? Ans.18 hours. 21. What is the missing number in this series? 8 2 14 6 11 ? 14 6 18 12 Ans. 9 22. A certain type of mixture is prepared by mixing brand A at Rs.9 a kg. with brand B at Rs.4 a kg. If the mixture is worth Rs.7 a kg., how many kgs. of brand A are needed to make 40kgs. of the mixture? Ans. Brand A needed is 24kgs. 23. A wizard named Nepo says "I am only three times my son's age. My father is 40 years more than twice my age. Together the three of us are a mere 1240 years old." How old is Nepo? Ans. 360 years old. 24. One dog tells the other that there are two dogs in front of me. The other one also shouts that he too had two behind him. How many are they? Ans. Three. 25. A man ate 100 bananas in five days, each day eating 6 more than the previous day. How many bananas did he eat on the first day? Ans. Eight. 26. If it takes five minutes to boil one egg, how long will it take to boil four eggs? Ans. Five minutes. 27. The minute hand of a clock overtakes the hour hand at intervals of 64 minutes of correct time. How much a day does the clock gain or lose? Ans. 32 8/11 minutes. 28. Solve for x and y: 1/x - 1/y = 1/3, 1/x2 + 1/y2 = 5/9. Ans. x = 3/2 or -3 and y = 3 or -3/2. 29. Daal is now being sold at Rs. 20 a kg. During last month its rate was Rs. 16 per kg. By how much percent should a family reduce its consumption so as to keep the expenditure fixed? Ans. 20 %. 30. Find the least value of 3x + 4y if x2y3 = 6. Ans. 10. 31. Can you find out what day of the week was January 12, 1979? Ans. Friday. 32. A garrison of 3300 men has provisions for 32 days, when given at a rate of 850 grams per head. At the end of 7 days a reinforcement arrives and it was found that now the provisions will last 8 days less, when given at the rate of 825 grams per head. How, many more men can it feed? Ans. 1700 men. 33. From 5 different green balls, four different blue balls and three different red balls, how many combinations of balls can be chosen taking at least one green and one blue ball? Ans. 3720. 34. Three pipes, A, B, & C are attached to a tank. A & B can fill it in 20 & 30 minutes respectively while C can empty it in 15 minutes. If A, B & C are kept open successively for 1 minute each, how soon will the tank be filled? Ans. 167 minutes. 35. A person walking 5/6 of his usual rate is 40 minutes late. What is his usual time? Ans. 3 hours 20 minutes.  36.For a motorist there are three ways going from City A to City C. By way of bridge the distance is 20 miles and toll is $0.75. A tunnel between the two cities is a distance of 10 miles and toll is $1.00 for the vehicle and driver and $0.10 for each passenger. A two-lane highway without toll goes east for 30 miles to city B and then 20 miles in a northwest direction to City C.   1. Which is the shortest route from B to C  (a) Directly on toll free highway to City C (b) The bridge (c) The Tunnel (d) The bridge or the tunnel (e) The bridge only if traffic is heavy on the toll free highway  Ans. (a)   2. The most economical way of going from City A to City B, in terms of toll and distance is to use the  (a) tunnel (b) bridge (c) bridge or tunnel (d) toll free highway (e) bridge and highway  Ans. (a)   3. Jim usually drives alone from City C to City A every working day. His firm deducts a percentage of employee pay for lateness. Which factor would most influence his choice of the bridge or the tunnel ?  (a) Whether his wife goes with him (b) scenic beauty on the route (c) Traffic conditions on the road, bridge and tunnel (d) saving $0.25 in tolls (e) price of gasoline consumed in covering additional 10 miles on the bridge  Ans. (a)   4. In choosing between the use of the bridge and the tunnel the chief factor(s) would be: I. Traffic and road conditions II. Number of passengers in the car III. Location of one's homes in the center or outskirts of one of the cities IV. Desire to save $0.25  (a) I only (b) II only (c) II and III only (d) III and IV only (e) I and II only  Ans. (a)   37.The letters A, B, C, D, E, F and G, not necessarily in that order, stand for seven consecutive integers from 1 to 10 D is 3 less than A B is the middle term F is as much less than B as C is greater than D G is greater than F  1. The fifth integer is (a) A (b) C (c) D (d) E (e) F  Ans. (a)   2. A is as much greater than F as which integer is less than G (a) A (b) B (c) C (d) D (e) E  Ans. (a)   3. If A = 7, the sum of E and G is (a) 8 (b) 10 (c) 12 (d) 14 (e) 16  Ans. (a)  4. A - F = ? (a) 1 (b) 2 (c) 3 (d) 4 (e) Cannot be determined  Ans. (a)   5. An integer T is as much greater than C as C is greater than E. T can be written as A + E. What is D? (a) 2 (b) 3 (c) 4 (d) 5 (e) Cannot be determined  Ans. (a)   6. The greatest possible value of C is how much greater than the smallest possible value of D? (a) 2 (b) 3 (c) 4 (d) 5 (e) 6  Ans. (a)    38. 1. All G's are H's 2. All G's are J's or K's 3. All J's and K's are G's 4. All L's are K's 5. All N's are M's 6. No M's are G's   1. If no P's are K's, which of the following must be true?  (a) All P's are J's (b) No P is a G (c) No P is an H (d) If any P is an H it is a G (e) If any P is a G it is a J  Ans. (a)   2. Which of the following can be logically deduced from the conditions stated?  (a) No M's are H's (b) No M's that are not N's are H's (c) No H's are M's (d) Some M's are H's (e) All M's are H's  Ans. (a)   3. Which of the following is inconsistent with one or more of the conditions?  (a) All H's are G's (b) All H's that are not G's are M's (c) Some H's are both M's and G's (d) No M's are H's (e) All M's are H's  Ans. (a)   4. The statement "No L's are J's" is I. Logically deducible from the conditions stated II. Consistent with but not deducible from the conditions stated III. Deducible from the stated conditions together with the additional statement "No J's are K's"  (a) I only (b) II only (c) III only (d) II and III only (e) Neither I, II nor III  Ans. (a)    39.In country X, democratic, conservative and justice parties have fought three civil wars in twenty years. TO restore stability an agreement is reached to rotate the top offices President, Prime Minister and Army Chief among the parties so that each party controls one and only one office at all times. The three top office holders must each have two deputies, one from each of the other parties. Each deputy must choose a staff composed of equally members of his or her chiefs party and member of the third party.  1. When Justice party holds one of the top offices, which of the following cannot be true  (a) Some of the staff members within that office are justice party members (b) Some of the staff members within that office are democratic party members (c) Two of the deputies within the other offices are justice party members (d) Two of the deputies within the other offices are conservative party members (e) Some of the staff members within the other offices are justice party members.  Ans. (a)   2. When the democratic party holds presidency, the staff of the prime minister's deputies are composed I. One-fourth of democratic party members II. One-half of justice party members and one-fourth of conservative party members III. One-half of conservative party members and one-fourth of justice party members.  (a) I only (b) I and II only (c) II or III but not both (d) I and II or I and III (e) None of these  Ans. (a)   3. Which of the following is allowable under the rules as stated:  (a) More than half of the staff within a given office belonging to a single party (b) Half of the staff within a given office belonging to a single party (c) Any person having a member of the same party as his or her immediate superior (d) Half the total number of staff members in all three offices belonging to a single party (e) Half the staff members in a given office belonging to parties different from the party of the top office holder in that office.  Ans. (a)   4. The office of the Army Chief passes from Conservative to Justice party. Which of the following must be fired.  (a) The democratic deputy and all staff members belonging to Justice party (b) Justice party deputy and all his or hers staff members (c) Justice party deputy and half of his Conservative staff members in the chief of staff office (d) The Conservative deputy and all of his or her staff members belonging to Conservative party (e) No deputies and all staff members belonging to conservative parties.  Ans. (a)    40.In recommendations to the board of trustees a tuition increase of $500 per year, the president of the university said "There were no student demonstrations over the previous increases of $300 last year and $200 the year before". If the president's statement is accurate then which of the following can be validly inferred from the information given: I. Most students in previous years felt that the increases were justified because of increased operating costs. II. Student apathy was responsible for the failure of students to protest the previous tuition increases. III. Students are not likely to demonstrate over new tuition increases.  (a) I only (b) II only (c) I or II but not both (d) I, II and III (e) None  Ans. (a)  41. The office staff of XYZ corporation presently consists of three bookeepers--A, B, C and 5 secretaries D, E, F, G, H. The management is planning to open a new office in another city using 2 bookeepers and 3 secretaries of the present staff . To do so they plan to seperate certain individuals who don't function well together. The following guidelines were established to set up the new office I. Bookeepers A and C are constantly finding fault with one another and should not be sent together to the new office as a team II. C and E function well alone but not as a team , they should be seperated III. D and G have not been on speaking terms and shouldn't go together IV Since D and F have been competing for promotion they shouldn't be a team 1.If A is to be moved as one of the bookeepers,which of the following cannot be a possible working unit.  A.ABDEH B.ABDGH C.ABEFH D.ABEGH  Ans.B   2.If C and F are moved to the new office,how many combinations are possible  A.1 B.2 C.3 D.4  Ans.A   3.If C is sent to the new office,which member of the staff cannot go with C  A.B B.D C.F D.G  Ans.B   4.Under the guidelines developed,which of the following must go to the new office  A.B B.D C.E D.G  Ans.A   5.If D goes to the new office,which of the following is/are true  I.C cannot go II.A cannot go III.H must also go  A.I only B.II only C.I and II only D.I and III only  Ans.D   42.After months of talent searching for an administrative assistant to the president of the college the field of applicants has been narrowed down to 5--A, B, C, D, E .It was announced that the finalist would be chosen after a series of all-day group personal interviews were held.The examining committee agreed upon the following procedure  I.The interviews will be held once a week II.3 candidates will appear at any all-day interview session III.Each candidate will appear at least once IV.If it becomes necessary to call applicants for additonal interviews, no more 1 such applicant should be asked to appear the next week V.Because of a detail in the written applications,it was agreed that whenever candidate B appears, A should also be present. VI.Because of travel difficulties it was agreed that C will appear for only 1 interview. 1.At the first interview the following candidates appear A,B,D.Which of the follwing combinations can be called for the interview to be held next week.  A.BCD B.CDE C.ABE D.ABC  Ans.B   2.Which of the following is a possible sequence of combinations for interviews in 2 successive weeks  A.ABC;BDE B.ABD;ABE C.ADE;ABC D.BDE;ACD  Ans.C   3.If A ,B and D appear for the interview and D is called for additional interview the following week,which 2 candidates may be asked to appear with D?  I. A II B III.C IV.E A.I and II B.I and III only C.II and III only D.III and IV only  Ans.D   4.Which of the following correctly state(s) the procedure followed by the search committee  I.After the second interview all applicants have appeared at least once II.The committee sees each applicant a second time III.If a third session,it is possible for all applicants to appear at least twice  A.I only B.II only C.III only D.Both I and II  Ans.A   43. A certain city is served by subway lines A,B and C and numbers 1 2 and 3 When it snows , morning service on B is delayed When it rains or snows , service on A, 2 and 3 are delayed both in the morning and afternoon When temp. falls below 30 degrees farenheit afternoon service is cancelled in either the A line or the 3 line, but not both. When the temperature rises over 90 degrees farenheit, the afternoon service is cancelled in either the line C or the 3 line but not both. When the service on the A line is delayed or cancelled, service on the C line which connects the A line, is delayed. When service on the 3 line is cancelled, service on the B line which connects the 3 line is delayed. Q1. On Jan 10th, with the temperature at 15 degree farenheit, it snows all day. On how many lines will service be affected, including both morning and afternoon. (A) 2 (B) 3 (C) 4 (D) 5 Ans. D  Q2. On Aug 15th with the temperature at 97 degrees farenheit it begins to rain at 1 PM. What is the minimum number of lines on which service will be affected? (A) 2 (B) 3 (C) 4 (D) 5 Ans. C  Q3. On which of the following occasions would service be on the greatest number of lines disrupted. (A) A snowy afternoon with the temperature at 45 degree farenheit (B) A snowy morning with the temperature at 45 degree farenheit (C) A rainy afternoon with the temperature at 45 degree farenheit (D) A rainy afternoon with the temperature at 95 degree farenheit Ans. B  44. In a certain society, there are two marriage groups, red and brown. No marriage is permitted within a group. On marriage, males become part of their wives groups; women remain in their own group. Children belong to the same group as their parents. Widowers and divorced males revert to the group of their birth. Marriage to more than one person at the same time and marriage to a direct descendant are forbidden Q1. A brown female could have had I. A grandfather born Red II. A grandmother born Red III Two grandfathers born Brown (A) I only (B) III only (C) I, II and III (D) I and II only Ans. D  Q2. A male born into the brown group may have (A) An uncle in either group (B) A brown daughter (C) A brown son (D) A son-in-law born into red group Ans. A  Q3. Which of the following is not permitted under the rules as stated. (A) A brown male marrying his father's sister (B) A red female marrying her mother's brother (C) A widower marrying his wife's sister (D) A widow marrying her divorced daughter's ex-husband Ans. B  Q4. If widowers and divorced males retained their group they had upon marrying which of the following would be permissible ( Assume that no previous marriage occurred) (A) A woman marrying her dead sister's husband (B) A woman marrying her divorced daughter's ex-husband (C) A widower marrying his brother's daughter (D) A woman marrying her mother's brother who is a widower. Ans. D  Q5. I. All G's are H's II. All G's are J's or K's III All J's and K's are G's IV All L's are K's V All N's are M's VI No M's are G's 45. There are six steps that lead from the first to the second floor. No two people can be on the same step Mr. A is two steps below Mr. C Mr. B is a step next to Mr. D Only one step is vacant ( No one standing on that step ) Denote the first step by step 1 and second step by step 2 etc. 1. If Mr. A is on the first step, Which of the following is true? (a) Mr. B is on the second step (b) Mr. C is on the fourth step. (c) A person Mr. E, could be on the third step (d) Mr. D is on higher step than Mr. C. Ans: (d) 2. If Mr. E was on the third step & Mr. B was on a higher step than Mr. E which step must be vacant (a) step 1 (b) step 2 (c) step 4 (d) step 5 (e) step 6 Ans: (a) 3. If Mr. B was on step 1, which step could A be on? (a) 2&e only (b) 3&5 only (c) 3&4 only (d) 4&5 only (e) 2&4 only Ans: (c) 4. If there were two steps between the step that A was standing and the step that B was standing on, and A was on a higher step than D , A must be on step (a) 2 (b) 3 (c) 4 (d) 5 (e) 6 Ans: (c)  5. Which of the following is false  i. B&D can be both on odd-numbered steps in one configuration ii. In a particular configuration A and C must either both an odd numbered steps or both an even-numbered steps iii. A person E can be on a step next to the vacant step. (a) i only (b) ii only (c) iii only (d) both i and iii Ans: (c)  46. Six swimmers A, B, C, D, E, F compete in a race. The outcome is as follows. i. B does not win. ii. Only two swimmers separate E & D iii. A is behind D & E iv. B is ahead of E , with one swimmer intervening v. F is a head of D 1. Who stood fifth in the race ? (a) A (b) B (c) C (d) D (e) E Ans: (e) 2. How many swimmers seperate A and F ? (a) 1 (b) 2 (c) 3 (d) 4 (e) cannot be determined Ans: (d) 3. The swimmer between C & E is (a) none (b) F (c) D (d) B (e) A Ans: (a)   4. If the end of the race, swimmer D is disqualified by the Judges then swimmer B finishes in which place (a) 1 (b) 2 (c) 3 (d) 4 (e) 5 Ans: (b) 47. Five houses lettered A,B,C,D, & E are built in a row next to each other. The houses are lined up in the order A,B,C,D, & E. Each of the five houses has a colored chimney. The roof and chimney of each housemust be painted as follows. i. The roof must be painted either green,red ,or yellow. ii. The chimney must be painted either white, black, or red. iii. No house may have the same color chimney as the color of roof. iv. No house may use any of the same colors that the every next house uses. v. House E has a green roof. vi. House B has a red roof and a black chimney 1. Which of the following is true ? (a) At least two houses have black chimney. (b) At least two houses have red roofs. (c) At least two houses have white chimneys (d) At least two houses have green roofs (e) At least two houses have yellow roofs Ans: (c) 2. Which must be false ? (a) House A has a yellow roof (b) House A & C have different color chimney (c) House D has a black chimney (d) House E has a white chimney (e) House B&D have the same color roof. Ans: (b) 3. If house C has a yellow roof. Which must be true. (a) House E has a white chimney (b) House E has a black chimney (c) House E has a red chimney (d) House D has a red chimney (e) House C has a black chimney Ans: (a) 4. Which possible combinations of roof & chimney can house I. A red roof 7 a black chimney II. A yellow roof & a red chimney III. A yellow roof & a black chimney  (a) I only (b) II only (c) III only (d) I & II only (e) I&II&III Ans: (e) 48. Find x+2y (i). x+y=10 (ii). 2x+4y=20 Ans: (b)   49. Is angle BAC is a right angle (i) AB=2BC (2) BC=1.5AC Ans: (e) 50. Is x greater than y (i) x=2k (ii) k=2y Ans: (e) | |
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