**AMCAT QUANTITATIVE APTITUDE**

1. **A Home security system provides a security code for the door, which consists of five buttons. Code may be generated by pressing any one button, any two, any three, any four, or all five buttons. How many such codes are possible?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 32 | 1. 5 | 1. 31 | 1. 10 |

1. **If p varies directly as the square of q and inversely as the square root of r, which of the given options would be true if k represents constant of variation?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. P(q)2=√k | 1. K=r2 \* p \* q-2 | 1. p/k(q)2=√r | 1. √p= 1/k(q)2 |

1. **In a class of 50 students, the average age of girls is 12.3 years and that of boys is 12.5 years. If the average age of class is 12.42 years, then the number of boys and girls respectively in the class are:**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. (25,25) | 1. (20,30) | 1. (30,20) | 1. (35,15) |

1. **In a game, each person is dealt 3 cards from a deck of 52 cards and a player is said to have a winning deck if and only if he or she has a king, queen and a jack each, irrespective of the colour or the sign. What is the total possible number of winning decks for this game?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 3 | 1. 4 | 1. 16 | 1. 64 |

1. **Five friends Megha, Mehgna, Mehak, Menka, and Meenakshi are to be seated on a round table such that Megha never sits next to Meghna . In how many ways is it possible?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 4! | 1. 4!\*2 | 1. 3!\*2 | 1. 3! |

1. **Rajesh commutes daily by travelling 4/5th of the distance between his home and office by metro train, 3/20 by auto and remaining 1 km on foot. The distance between his home and office is:**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 12 km | 1. 16 km | 1. 24 km | 1. 20 km |

1. **Sangeeta invested Rs. 20,000 at 8% per annum. If the interest is compounded half yearly, then total interest earned by Sangeetaat the end of the year is :**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1632 | 1. 1600 | 1. 1800 | 1. 1475 |

1. **If log5 = 0.69897, find the value of log500**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 2.7 | 1. 2.6 | 1. 1.7 | 1. 1.6 |

1. **The least perfect square which is divisible by 3,4,5,6,and 8 is:**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 900 | 1. 1200 | 1. 2500 | 1. 3600 |

1. **If log57= log37\*log5x, what is the value of x?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 7 | 1. 5 | 1. 3 | 1. 10 |

1. **Solve (4-1 – 6-1)2**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. (12)2 | 1. (12)-2 | 1. (2)12 | 1. None of these |

1. **(Log249) (Log72) (Log77) is equal to :**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1 | 1. 2 | 1. 7 | 1. 49 |

1. **What is the value of (-3/7)-4 ?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 81/2401 | 1. 2401/81 | 1. 18/2401 | 1. 81/2410 |

1. **If 78Q928R is divisible by 6 then what values can Q and R take?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. Q=2 & R=3 | 1. Q=1 & R=4 | 1. Q=1 & R=2 | 1. Q=3 & R=3 |

1. **Which of the given numbers is divisible by 3\*4?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 946 | 1. 947 | 1. 948 | 1. 949 |

1. **The number of possible selections of one or more questions from 8 given questions, each having an alternative is?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 28 - 1 | 1. 38 - 1 | 1. 48 - 1 | 1. N.O.T |

1. **What is value of i34**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. - 1 | 1. 1 | 1. 0 | 1. i |

1. **A group of 6 is to be made out of 8 girls and 6 boys. What is the probability that exactly 3 boys are selected?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. (8C3\*6C3) /14C6 | 1. 8C3 / 14C6 | 1. 3/4 | 1. 1/2 |

1. **If 6(X-3) = 36(X-5) , then what is the value of x ?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 2 | 1. No value will agree | 1. -1 | 1. 7 |

1. **What is the smallest square number which is divisible by 2,4,5,6, and 9 ?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 200 | 1. 90 | 1. 180 | 1. 900 |

1. **1.52 \* 0.02251/2 = ?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 0.0375 | 1. 0.3375 | 1. 3.275 | 1. 32.75 |

1. **Given that the interest is only earned on principal, if an investment of Rs. 1000.00 amounts to 1440.00 in two years, then what is the rate of interest earned?**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. 20% | 1. 22% | 1. 21% | 1. 11% | 1. 44% |

1. **Every member of housing society contributed as much amount as there are number of members in the society. The president added Rs 150 extra from his side to make the total of Rs 2650 How many members are there in the housing society?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 25 | 1. 50 | 1. 60 | 1. 35 |

1. **A sum of money triples itself at compound interest in 3 years. In 9 years it will be**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 6 times the principal | 1. 12 times the principal | 1. 18 times the principal | 1. 27 times the principal |

1. **The Probability of finishing a test on time by A is 1/2,B is 2/3 and by C is 3/5.If all of them write the test independently , then what is the probability that just two of them are able to write the test on time?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1/2 | 1. 3/10 | 1. 13/30 | 1. 1/3 |

1. **In order to have 6P2 permutations, the 6C2 combinations of ‘flight’ should be multiplied by:**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1 | 1. 2 | 1. 6 | 1. 24 |

1. **Atul bought a machine for Rs. 4,50,000 and sold it to Irfan at a profit. Irfan later sold the machine to Danish at a loss of 10% for Rs. 4,95,000. Profit earned byAtulis ?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 23% | 1. 21% | 1. 25% | 1. 22.22% |

1. **A bag contains 8 white balls and some yellow balls. If the probability of drawing a white ball is twice of a yellow ball. Then the no. of yellow balls in the bag is ?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 2 | 1. 3 | 1. 4 | 1. 6 |

1. **What is the value of 251.5?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 325 | 1. 32.5 | 1. 125 | 1. N.O.T |

1. **An air conditioner can cool the hall in 40 mins while another takes 45 mins, if both are switched on at same instance, then how long will it take to cool the room?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 22 mins | 1. 20 mins | 1. 30 mins | 1. 25 mins |

1. **In a class, 30% of students opted for English, 20% opted for Hindi and 10% opted both. If a student is selected at random, what is the probability that he has optedfor English or Hindi?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 2/5 | 1. 3/4 | 1. 3/5 | 1. 3/10 |

1. **Probability that knight riders will win on Saturday is 0.6. Probability that Daredevils will win on Sunday is 0.8. what is the probability that both teams will win their respective matches?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 8% | 1. 48% | 1. 52% | 1. 60% |

1. **What is the value of (0.027)1/3 ?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 0.3 | 1. 0.03 | 1. 0.03 | 1. N.O.T |

1. **A bag is full of 20 bananas and no other fruit. Rajeev draws a fruit from the bag. What is the probability that he will draw a banana?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1 | 1. 0 | 1. 1/2 | 1. N.O.T |

1. **A man sells 12 candles for rs. 12 & loses Rs. 2.40. if he sells 12 candies for rs. 16, how much does he gains or loses?**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. gains 4rs | 1. loses 6rs | 1. gains 6.40rs | 1. loses 1.60rs | 1. gains1.60 rs |

1. **If 2x+y=2\*(2)1/2 and 2x-y=21/2. Then find the value of x?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1 | 1. 2 | 1. 3 | 1. 4 |

1. **If the price of rice increases by 30%. Then by what % its consumption be decreased so that the total expenditure remains same?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 76.92% | 1. 23.07% | 1. 30% | 1. 25% |

1. **What is the chance of throwing a sum greater than or equal to 7 in throw of 2 dice?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 7/12 | 1. 1/3 | 1. 3/4 | 1. 13/36 |

1. **For irrigational purposes, a farmer uses a tank of water. He uses a pipe during night to fill the tank so that he could use the tank of water to irrigate his farm. The pipe fills the tank in 3 hours but on 1 particular day, because of leak in the tank, the pipe takes 4.5 hours to fill it. In how many hours can the tank be completely emptied by the leak alone?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 6 | 1. 9 | 1. 1.5 | 1. Data insufficient |

1. **What should be added to 25p2 + 25q2 so that sum becomes a perfect square?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 20pq | 1. 30pq | 1. 40 pq | 1. 50p2q2 |

1. **What is remainder when we divide 125! By 1031?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 4 | 1. 0 | 1. 1 | 1. 5 |

1. **Which of the two is greater. 12√12 or 6√6?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1 | 1. 2 | 1. Both are equal | 1. none |

1. **If log104=0.60 and log103=0.47. what is the value of log1012?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1.07 | 1. 1.12 | 1. 0.28 | 1. 0.13 |

1. **Square of one no. is 25.if the HCF and LCM of two no. are 5 and 35 respectively. Find the other no.?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 5 | 1. 7 | 1. 25 | 1. 35 |

1. **How many 3 digit no. can be formed using 2,3,4 and 5 with none of digits being repeated?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 20 | 1. 45 | 1. 24 | 1. 10 |

1. **Value of log132197?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 13 | 1. 7 | 1. 4 | 1. 3 |

1. **Average of 7 no. is 50. Average of first 3 of them is 40. While the average of last 3 is 60. What must be the remaining number?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 45 | 1. 50 | 1. 55 | 1. 65 |

1. **Which no. is divisible by 24?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 2952 | 1. 2958 | 1. 2964 | 1. 2970 |

1. **Find the smallest no. which when divided by 3,5 and 7 leaves a remainder 2 in each case and is divisible by 11.**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 737 | 1. 735 | 1. 105 | 1. 107 |

1. **Simplify 0.3434+0.6969+0.8080-0.4444-0.3333-0.0707?**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. 2 | 1. 1.5 | 1. 1.14 | 1. 0 | 1. 1 |

1. **X4y-xy4=**

|  |
| --- |
| 1. xy(x-y)(x2+xy+y2) |
| 1. xy(x+y)(x2-xy+y4) |
| 1. (x3+y2)xy |
| 1. none of above |

1. **18.34545454…..is equivalent to**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. 1009/55 | 1. 1009/5500 | 1. 1009/99 | 1. 342/990 | 1. 345/99 |

1. **In a single throw of dice, probability of getting a no. greater than or equal to 4?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1/3 | 1. 2/3 | 1. 1/2 | 1. N.O.T |

1. **What is the square root of 54, 05 , 625?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 4245 | 1. 3225 | 1. 2345 | 1. 2325 |

1. **If r=at2 and s=2at then relation among s,r and a=**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. s2=4ar | 1. s=ar | 1. s=2ar | 1. s2=ar |

1. **Ram is 5 years elder to his youngest sibling Shreya.Shreya who is 2 years younger than her brother Ritesh is 13 years old and is Ram’s brother. How old will Rambe in two years from now?**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. 15 | 1. 16 | 1. 17 | 1. 18 | 1. 20 |

1. **Value of log864-log644096?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. -1 | 1. 0 | 1. 1 | 1. 2 |

1. **Value of logabca2b2c2**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. abc | 1. ab | 1. 1 | 1. 2 |

1. **Log (10x) is equal to**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1+log X | 1. Log X | 1. Log 10\*log X | 1. 1-log X |

1. **47322 bulbs have to be packed. Each box should contain an equal number of bulbs. Which of the options is close to number of boxes for packing?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 12 | 1. 11 | 1. 8 | 1. 14 |

1. **Find smallest two digit number that divides 587 and 730 which leaves remainder 2 in each case?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 11 | 1. 13 | 1. 15 | 1. 17 |

1. **Smallest number to be subtracted from 321 to make it prime?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 2 | 1. 4 | 1. 6 | 1. 9 |

1. **Which of the numbers is divisible by 11?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1042 | 1. 1045 | 1. 1047 | 1. 1048 |

1. **A Jar contains 5 white , 8 red, 2 blue and 3 black balls. Find probability ball is red or blue?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 4/9 | 1. 5/9 | 1. 2/7 | 1. 1/5 |

1. **The ratio between two cabs is 13:4. If the second cab travels 40km in 2 hours, what is the speed of first cab?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 91 km/hr | 1. 68km/hr | 1. 52km/hr | 1. 78km/hr |

1. **In how many ways, the word DETAIL can be arranged?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 60 | 1. 210 | 1. 360 | 1. 720 |

1. **5406-8975 = ------- x (5406-8975)**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 5406+8975 | 1. 5406-8975 | 1. 5406\*8975 | 1. 5406/8975 |

1. **Find the value of [5! \* 4!] + (3!/2!)**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 2883 | 1. 3240 | 1. 1800 | 1. 1443 |

1. **Find the value of X?**

**Square root (2x-5) = 10**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 52.5 | 1. 7.5 | 1. 4.08 | 1. 50 |

1. **What is the difference between roots of equation x^2+8x+16 = 0**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. -6 | 1. 0 | 1. 8 | 1. -8 |

1. **Find smallest 2 digit number which when divided by 1, 2, 3 and leaves noremainder?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 12 | 1. 14 | 1. 16 | 1. 10 |

1. **x/6 + 5x/7 = 3x -9**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. x= -4.25 | 1. x= -4 | 1. x= 4 | 1. x= 4.25 |

1. **If x = -2, what is value of (x^2 + 1)/(x-1)?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. -5/3 | 1. 5/3 | 1. -1 | 1. 1 |

1. **In how many ways can 10 boys and 10 girls be seated around a round table so that they are positioned alternately?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 9! \* 10! | 1. ) 9! \* 9! | 1. 10! \* 10! | 1. 2\* 10! |

1. **What is least value of X such that the number 64958X is divisible by 11?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 0 | 1. 1 | 1. 2 | 1. 3 |

1. **A flower seller purchases roses at Rs 96 a dozen and sells them at Rs 10 a flower. What is profit percent?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 40% | 1. 20% | 1. 25% | 1. 15% |

1. **An employee travels by car from his home to work every day. He travels at a speed of 60 km/hr and returns at 40 km/hr and took total 170 mins to complete the journey. Find total distance travelled by him?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 68 km | 1. 136 km | 1. 71 km | 1. 142 km |

1. **The male to female ratio in the ratio of HR and MARKETING of a company is 2:5 and 6: x. What is value of X?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 10 | 1. 15 | 1. 20 | 1. 5 |

1. **A man starts his job with a certain monthly salary and earns a fixed increment every year. If his salary was Rs1500 after 4 year of service and Rs1800 after 10 year of service, what was his starting salary and what is the annual increment?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1300 | 1. 1200 | 1. 1000 | 1. 1100 |

1. **Company decides to retain 80% of the profit earned by it during a year. What is the earning if profit is 80%?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 54 | 1. 60 | 1. 65 | 1. 45 |

1. **A man can complete a piece of work in 15 days. Find his efficiency?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 10% | 1. 6.66% | 1. 5% | 1. 15% |

1. **Three persons A, S, D can complete a piece of work in 12, 15, 20 days. If they work and are paid Rs 6000 for entire process. How much does S receive?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 2000 | 1. 2500 | 1. 1500 | 1. 3000 |

1. **Pooja has cash of Rs 25000. She also receives bonus from company. She gave half of the bonus each with an additional amount of Rs 20000 and Rs 5000 from her cash reserves to her daughters Priya and Mona. Priya receives twice the amount received by Mona. What is theamount of bonus Pooja receives?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 15,000 | 1. 25,000 | 1. 10,000 | 1. 20,000 |

1. **Aman’smonthly salary after 4 years is 19,000 andRs 25,000 after 10 years. Find his starting salary.**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. 1000 | 1. 4000 | 1. 16000 | 1. 19000 |

1. **An aptitude test consists of 100 questions with total score of 600 and total questions 100. Each question carries 5 marks and each descriptive question carries 10 marks. How many MCQ and DQ are there?**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. MCQ- 80 and DQ- 20 | 1. MCQ- 90 and DQ- 10 | 1. MCQ- 20 and DQ- 80 | 1. MCQ- 10 and DQ- 90 |