

Multiple choice questions(Selection based on previous CET of KA & AP Entrance)

(01) The Probability that a leap year will have 53 Sundays is

- 1) $\frac{1}{7}$ 2) $\frac{2}{7}$ 3) $\frac{5}{7}$ 4) $\frac{6}{7}$

(02) If n coins are tossed simultaneously, the probability of getting head an odd number of times is

- 1) $\frac{1}{2^n}$ 2) $\frac{1}{3}$ 3) $\frac{1}{2}$ 4) $\frac{1}{2^{n-1}}$

(03) If two dice are thrown simultaneously, then the probability that the sum of the numbers which come up on the dice to be more than 5 is

- 1) $\frac{5}{18}$ 2) $\frac{5}{36}$ 3) $\frac{13}{18}$ 4) $\frac{1}{6}$

(04) The Probability of getting a number between 1 and 100 which is divisible by 1 and itself only is

- 1) $\frac{1}{4}$ 2) $\frac{1}{2}$ 3) $\frac{3}{4}$ 4) $\frac{25}{98}$

(05) If 5 cards are drawn from a pack, then the probability of selecting the cards of which four of them have same face value is

- 1) $\frac{{}^{13}C_1 \times {}^{48}C_4}{{}^{52}C_5}$ 2) $\frac{{}^{13}C_4 \times {}^{39}C_1}{{}^{52}C_5}$ 3) $\frac{{}^{13}C_1 \times {}^{39}C_4}{{}^{52}C_5}$ 4) $\frac{{}^{13}C_1}{{}^{52}C_5}$

(06) 2 cards are drawn from a pack. The Probability that one of them is a Club and the other is not a club is

- 1) $\frac{1}{36}$ 2) $\frac{5}{108}$ 3) $\frac{26}{51}$ 4) $\frac{13}{34}$

(07) If a number 'x' is selected from natural numbers 1 to 100, then the Probability for $(x + 100/x) > 29$ is

- 1) $\frac{41}{50}$ 2) $\frac{47}{50}$ 3) $\frac{39}{50}$ 4) $\frac{37}{50}$

(08) The letters of the word "TRIANGLE" are arranged at random. The Probability that the word so formed starts with T and ends with R is

- 1) $\frac{2}{8!}$ 2) $\frac{6}{8!}$ 3) $\frac{2}{28}$ 4) $\frac{1}{56}$

(09) Using 1, 2, 3, 4, 5 digits 4 digit numbers are formed without repetitions at random. The Probability that the number is divisible by 4 is

- 1) $\frac{1}{5}$ 2) $\frac{2}{5}$ 3) $\frac{3}{5}$ 4) $\frac{4}{5}$

(10) Two squares are chosen at random on a chess board. The Probability that they have a side in common is

- 1) $\frac{1}{9}$ 2) $\frac{2}{7}$ 3) $\frac{1}{18}$ 4) $\frac{1}{3}$

<p>(11) The letters of the word " E A M C E T " are arranged in all possible ways. The probability that no two vowels come together in that word is</p> <p>1) $\frac{1}{5}$ 2) $\frac{2}{5}$ 3) $\frac{3}{4}$ 4) $\frac{1}{4}$</p>
<p>(12) If 2 cards are drawn from a well shuffled pack, the Probability that at least one of the two is heart is</p> <p>1) $1 - \frac{{}^{39}C_2}{{}^{52}C_2}$ 2) $\frac{{}^{13}C_1 \cdot {}^{39}C_1}{{}^{52}C_2}$ 3) $\frac{{}^{26}C_1 \cdot {}^{26}C_1}{{}^{52}C_2}$ 4) $\frac{{}^{39}C_2}{{}^{52}C_2}$</p>
<p>(13) From first 20 natural numbers if 2 numbers are selected at random then the Probability of selecting them which are not consecutive</p> <p>1) $\frac{9}{10}$ 2) $\frac{19}{20}$ 3) $\frac{1}{10}$ 4) $\frac{1}{5}$</p>
<p>(14) A bag contains 50 tickets numbered 1,2,3,.....50 of which 5 are drawn at random and arranged in ascending order of magnitude ($x_1 < x_2 < x_3 < x_4 < x_5$). The Probability that $x_3 = 30$</p> <p>1) $\frac{{}^{20}C_2}{{}^{50}C_5}$ 2) $\frac{{}^{29}C_2}{{}^{50}C_5}$ 3) $\frac{{}^{29}C_2 \times {}^{20}C_2}{{}^{50}C_5}$ 4) $\frac{{}^{20}C_2}{{}^{45}C_2}$</p>
<p>(15) In a class there are 10 men and 20 women. Out of them half the number of men and half the number of women have brown eyes. Out of them if a person is chosen at random the probability for the person chosen to be a man or a brown eyed person is</p> <p>1) $1/3$ 2) $1/15$ 3) $2/3$ 4) $2/5$</p>
<p>(16) In a class 40% students study mathematics, 25% study chemistry and 15% both mathematics and chemistry. If a student is chosen at random the probability that he studies mathematics, If it is known that he studies chemistry is</p> <p>1) $1/8$ 2) $3/8$ 3) $2/5$ 4) $3/5$</p>
<p>(17) There are 15 cards. Of these 10 have the letter 'I' printed on them and the other 5 have the letter 'T' printed on them. If three cards are picked up at random one after another and kept in the same order. The probability of making the word IIT is</p> <p>1) $15/182$ 2) $15/91$ 3) $90/15 \times 14 \times 13$ 4) $15/32$</p>
<p>(18) The key for a door is in the bunch of 10 keys. A man attempts to open the door by trying keys at random discarding the wrong key. The probability that the door is opened in the 5th trial is</p> <p>1) 0.1 2) 0.2 3) 0.5 4) 0.6</p>
<p>(19) The probability of India winning a test match against Pakistan is $1/2$. Assuming independence from match to match. The probability that in a 3 match series India's second win occurs at the third test is</p> <p>1) $1/8$ 2) $1/4$ 3) $1/2$ 4) $2/3$</p>
<p>(20) The probabilities of solving problem by 3 students A,B,C independently are $1/3, 1/4, 1/5$. The probability that the problem will be solved is</p> <p>1) $1/60$ 2) $3/5$ 3) $48/60$ 4) $57/60$</p>

(21) A,B,C are aiming to shoot a balloon. A will succeed 4 times out of 5 attempts. The chance of B to shoot the balloon is 3 out of 4 and that of C is 2 out of 3. If the three aim the balloon simultaneously. The probability that at least 2 of them hit the balloon is

- 1) $5/6$ 2) $13/30$ 3) $1/2$ 4) $1/4$

(22) A man draws a card from a pack one after another with replacement until he gets red card. The probability that he gets red card in 4th draw is

- 1) $1/16$ 2) $1/8$ 3) $1/4$ 4) $1/2$

(23) If $A_1, A_2, A_3, \dots, A_n$ are n independent events such that $P(A_k) = 1/(k+1)$, where $k = 1, 2, \dots, n$, then the probability that none of the 'n' events occur is =

- 1) $1/(n+1)$ 2) $n/(n+1)$ 3) $n/(n+1)(n+2)$ 4) $1/(n!+1)$

(24) The probability that A speaks truth is $4/5$, while this probability for B is $3/4$. The probability that they contradict each other when asked to speak on a fact is

- 1) $3/20$ 2) $4/5$ 3) $7/20$ 4) $1/5$

(25) An Urn A contains 8 black balls and 5 white balls. A second Urn B contains 6 black and 7 white balls. The probability that a blind folded person in one draw shall obtain a white ball

- 1) $5/13$ 2) $7/13$ 3) $6/13$ 4) $5/26$