

Statistics Ics Part 1 Chapter 7 Online Test

| Sr | Questions | Answers Choice |
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| 1 | $F(-\infty)$ is always equal to | A. Zero B. One C. Two D. Negative one |
| 2 | Question Image | A. $y_{₁} = y_{₂}$ B. $y_{₁} > y_{₂}$ C. $y_{₁} < y_{₂}$ D. None of these |
| 3 | Variance σ^2 is equal to $E(y^2) -$ ----- | A. $E(y)$ B. $[E(y)]^2$ C. $E(y)^2$ D. $E^2(y)$ |
| 4 | The simplest form of the continues distribution is the | A. Skewed distribution B. Kurtic distribution C. Binomial distribution D. Uniform distribution |
| 5 | The probability distribution of discrete random variable is called is | A. Frequency distribution B. Probability distribution C. Probability mass function D. Both (a) and (b) |
| 6 | The probability of a continuous random variable at $x = a$ is ----- | A. One B. Zero C. Between 0 and 1 D. More than one |
| 7 | $\text{Var}(3x + 2)$ | A. $3 \text{Var}(X) + 2$ B. $3 \text{Var } X$ C. $9 \text{var}(x) + 2$ D. $9 \text{var}(x)$ |
| 8 | Probability distribution of a continuous random variable can be presented by | A. tabular form B. Formula C. Curve D. None of these |
| 9 | If a is a constant then $E(a)$ is equal to | A. a B. Square of a C. Zero D. $2a$ |
| 10 | $E(y - \mu)$ is equal to | A. $E(y)$ B. $y - \mu$ C. zero D. $y - \mu$ |
| 11 | For a constant k , the variance of k is | A. zero B. k^2 C. k D. none of these |
| 12 | Question Image | A. 8 B. 0 C. $1/8$ D. 3 |
| 13 | If x is a random variable with $E(x) = 5$ then $E(3x - 2) =$ | A. 0 B. 1 C. 13 D. All of them |
| 14 | If mean = 25 and variance is also 25. then coefficient of variation is | A. 100% B. 25% C. 50% D. 75% |

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| | | C. 20% D. 10% |
| 15 | Question Image | A. 4/10 B. 2/10 C. 1/10 D. 0 |
| 16 | If the random variable x denotes the number of heads when three distinct coins are tossed, the x assumes values | A. 0, 1, 2, 3 B. 1, 3, 3, 1 C. 1, 2, 3 D. None of these |
| 17 | If x and y are independent random variables, then $E(xy)$ | A. $E(xy)$ B. $x E(y)$ C. $E(x)$ D. $E(x)E(y)$ |
| 18 | $\text{Var}(3x+2)$ | A. $3\text{Var}(x) + 2$ B. $9\text{Var}(x) + 2$ C. $\text{Var}(x) + 0$ D. $3\text{Var}(X)$ |
| 19 | Variance of σ^2 is equal E to $(Y^2) - \text{_____}$? | A. $E(y)$ B. $[E(y)]^2$ C. $E(y^2)$ D. None of these |
| 20 | $F(y_1) \leq F(y_2)$ if | A. $y_1 \leq y_2$ B. $y_1 > y_2$ C. $y_1 \leq y_2$ D. $y \geq 1/2$ |
| 21 | $F(-\infty)$ is always equal to. | A. Zero B. One C. Two D. Negative one |
| 22 | probability distribution of a continuous random variable can be presented by. | A. Formula B. Curve C. Tabular form D. None of these |
| 23 | $E(x - \mu)$ is equal to: | A. $E(x)$ B. zero C. μ D. $X - \mu$ |
| 24 | Random variable is also called _____. | A. Chance stochastic B. Converges C. Random D. None of these |
| 25 | $E(x) = \sum x f(x)$ if it _____ absolutely. | A. Equal B. Converges C. Discrete D. None of these |
| 26 | If x and y are independent random variables, $E(xy)$ | A. $E(XY)$ B. $x E(y)$ C. $E(XY)$ D. $E(X) \cdot E(Y)$ |
| 27 | If the random variable x denotes the number of heads of when three distinct coins are tossed k the X assumes values. | A. 0,1,2,3 B. 1,3,3,1 C. 1,2,3 D. 1,1,1,1 |
| 28 | Which one is not an example of random experiments. | A. A coin is tossed and the outcome is either a head or a tail B. A six sided aid is rolled C. All medical insurance claims received by a company in a given year. D. Some one of person will be admitted to a hospital emergency room during any hour. |
| 29 | For a constant K ,the variance of K. | A. Zero B. A^{-2} C. K D. None of these |
| 30 | The simplest form of the continuous distribution is the. | A. Skewed distribution B. Kurtic distribution C. Binomial distribution D. Uniform distribution |

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| 31 | The probability of continuous random variable at $x = a$ is _____. | <p>A. One B. Zero C. Between D. More then one</p> |
| 32 | If x is a random variable with $E(x) = 5$ then $E(3x - 2) =$ | <p>A. 0 B. 1 C. 13 D. 15</p> |
| 33 | A probability function is _____ function. | <p>A. Mathematical B. Mathematical expectation C. Converges D. None of these</p> |
| 34 | The sum of probabilities of events of a sample space is always. | <p>A. Equal B. Discrete C. Continuous D. Always greater then oen</p> |
| 35 | Which of the following is suitable for discrete probability distribution. | <p>A. Frequency polygon B. Probability C. Ogive D. Histogram</p> |
| 36 | A random variable is also called. | <p>A. Chance variable B. Stochastic variable C. Discrete variable D. Both A and B</p> |
| 37 | $E(X \pm Y) = \dots\dots\dots$ | <p>A. $E(X) + E(Y)$ B. $E(X) - E(Y)$ C. $E(x) \pm E(Y)$ D. None of these</p> |
| 38 | $\text{Var}(KY) = \dots\dots\dots$ | <p>A. KY B. $K^2 \text{Var}(Y)$ C. $K^2 \text{Var}(Y)$ D. None of these</p> |
| 39 | For discrete random variable 'X' the expectation of X i-e $E(x)$ is equal to: | <p>A. $\sum p(x)$ B. $\sum xp(x)$ C. $\sum x^2 p(x)$ D. One</p> |
| 40 | Coefficient of variation (C.V) is given below | <p>A. $\text{Mean} / \text{S.D} \times 10$ B. $\text{Mean} / \text{S.D} \times 100$ C. $\text{S.D} / \text{Mean} \times 100$ D. $\text{S.D} / \text{Mean}$</p> |
| 41 | The Area of trapezoid is equal to: | <p>A. sum of paralld sides x base B. sum of paralld sides x base/2 C. 2 x base x sum of paralld side D. Sum of paralld sides x base/4</p> |
| 42 | The properties of discrete probability distribution are: | <p>A. $\sum p(x) = 1$ and $\sum x \cdot p(x) = 1$ B. $\sum p(x) = 1$ and $\sum x \cdot p(x) = 1$ C. $\sum p(x) = 1$ and $0 \leq p(x) \leq 1$ D. All of these above</p> |
| 43 | If $y = -7x$ then $E(y) = \dots\dots\dots$ | <p>A. $E(x)$ B. $-7X$ C. $-7E(X)$ D. Zero</p> |
| 44 | $E(Y^2) - [E(y)]^2$ is the formula, and to compute. | <p>A. Variance of the random variable B. Mean of the random variable C. Both A and B D. None of these</p> |
| 45 | For two independent random variables, $\text{Var}(x) = 14$ and $\text{Var}(Y) = 5$, then $\text{var}(X-y)$ is equal to. | <p>A. 9 B. 70 C. 19 D. None of these</p> |
| 46 | Hourly temperature recorded by weather brave is the example of: | <p>A. Discrete variable B. Continuous variable C. Qualitative D. Both A and B</p> |
| 47 | $F(+\infty)$ is always equal to: | <p>A. 0 B. Two C. One D. None of these</p> |
| 48 | $\text{Var}(B/aX) = ?$ | <p>A. $1/a \text{Var}(X)$ B. $b^2/a^2 \text{Var}(X)$ C. $b^2/a \text{Var}(X)$</p> |

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| | | C. 0.5 D. None of these |
| 49 | If one event is unaffected by the outcome of another event, the two events are said to be | A. Dependent B. Independent C. Mutually exclusive D. Both b and c |
| 50 | The simple probability of occurrence of an event is called the. | A. Joint probability B. Conditional probability C. Marginal probability D. Subjective probability |
| 51 | Why are the outcomes of a coin tossing mutually exclusive. | A. The outcome of any toss is not affected by the outcome of those preceding it. B. Both a head and a tail cannot turn up on any one toss C. The probability of getting a head and the probability of getting a tail is the same. D. All of these |
| 52 | What is the probability that a value chosen at random from a particular population is larger than the median of the population. | A. 0.25 B. 0.5 C. 1.0 D. 0.67 |
| 53 | What is the probability that a ball drawn at random from the bag is. | A. 0.1 B. 0.4 C. 1.0 D. Cannot be determined from given information |
| 54 | When two dice are rolled, the number of possible sample points is. | A. 6 B. 12 C. 36 D. 48 |
| 55 | The probability of drawing a king of spade from a pack of 52 cards is. | A. 1/4 B. 1/13 C. 1/26 D. 1/52 |
| 56 | If a Venn diagram is drawn for events A and B which are mutually exclusive, which of the following would always be true of A and B. | A. Their parts of the rectangle will overlap B. Their parts of the rectangle will be equal in area C. Their parts of the rectangle will not overlap D. None of these |
| 57 | When two coins are tossed simultaneously, P (one head) is. | A. 1/2 B. 1/4 C. 3/4 D. 1.0 |
| 58 | When three coins are tossed simultaneously, P(3 heads) is. | A. 3/8 B. 1/2 C. 1/8 D. 1/4 |
| 59 | The probability of drawing two aces from a pack of 52 cards with replacement is. | A. 1/169 B. 1/10 C. 1/4 D. 1/256 |
| 60 | The probability of red card out of 52 cards is. | A. 1/4 B. 1/2 C. 4/52 D. zero |
| 61 | When two coins are tossed simultaneously the probability of at most one head is. | A. 1/2 B. 1/4 C. 3/4 D. None of these |
| 62 | A letter is chosen at random from the word STATISTICS, The probability of getting a vowel is. | A. 1/5 B. 3/10 C. 1/2 D. 2/5 |
| 63 | The probability of getting one red ball from a bag containing 4 red, 3 white and 3 black balls is. | A. 3/10 B. 1/5 C. 2/5 D. 1/2 |
| 64 | The probability of getting two red balls with replacement from a bag containing 4 red, 3 white and 3 black balls is. | A. 4/25 B. 1/25 C. 2/100 D. 1/100 |

white and 3 black balls is.

C. $\frac{9}{100}$
D. $\frac{2}{25}$

- 65 The numbered balls are placed in an urn, Numbers 1- 4 are red and numbers 5 -10 are blue. the probability that a ball drawn at random from the urn is blue is.
A. 0.1
B. 0.4
C. 0.6
D. 1.0
- 66 The probability of getting an odd number when a balanced die is rolled is.
A. $\frac{1}{2}$
B. $\frac{1}{3}$
C. $\frac{1}{4}$
D. $\frac{1}{6}$
- 67 The probability of drawing any one spade card is.
A. $\frac{1}{32}$
B. $\frac{1}{18}$
C. $\frac{1}{4}$
D. $\frac{4}{13}$
- 68 Is the tossing of two perfect coins the probability at least one head occurs is.
A. $\frac{1}{4}$
B. 1
C. $\frac{1}{2}$
D. $\frac{3}{4}$
- 69 The probability of an event cannot be.
A. = 0
B. ≥ 0
C. =1
D. ≤ 0
- 70 If two coins are tossed, the probability of getting one head and one tail is.
A. $\frac{1}{4}$
B. $\frac{2}{4}$
C. $\frac{3}{4}$
D. $\frac{2}{3}$
- 71 a measure of the chance that an uncertain event will occur.
A. An experiment
B. An event
C. A probability
D. A trial
- 72 When a die and a coin are rolled together all possible outcomes are.
A. 2
B. 6
C. 12
D. 36
- 73 A set of numerical values assigned to a sample space is called.
A. Random sample
B. Random variable
C. Random numbers
D. Random experiment
- 74 Events with equal probabilities are called.
A. Mutually exclusive events
B. Exhaustive events
C. Equally likely events
D. Simple events
- 75 the collection of all possible outcomes of a random experiment is called.
A. Sample point
B. Sure event
C. sample event
D. simple event
- 76 A student solved 25 questions from first 50 questions of a book to be solved. The prob, that he will solve the remaining all questions.
A. 0.25
B. 0.51
C. 1
D. 0
- 77 The result of no interest of an experiment is called.
A. Constant
B. even
C. Failure
D. Success
- 78 Which is the impossible event when a dice is rolled.
A. 5 or 6
B. 6 or 7
C. 2 or 3
D. 1
- 79 When two dice are rolled, the maximum total on the two faces of dice will be.
A. 2
B. 6
C. 12
D. 36
- 80 The probability of an impossible event is.
A. Positive
B. Zero
C. Negative
D. 1
- 81 The coins are tossed, the probability of two tails is equal to.
A. $\frac{1}{2}$
B. $\frac{1}{4}$
C. $\frac{3}{4}$
D. 1

A. 0 to 2
B. 1 to 2

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| 82 | The range of probability is between | B. -1 to +1 C. 0 to 8 D. 0 to 1 |
| 83 | Tossing two dice possible sampes are. | A. 2 B. 6 C. 12 D. 36 |
| 84 | the term 'event' is used for. | A. Time B. Subaet of the sample space C. Total number of outcomes D. Probability |
| 85 | Which of the following cannot be probability of an event. | A. 0 B. 1 C. 0.32 D. 1.00 |
| 86 | When a pair of dice is rolled, the sum of upperemost dots vary from. | A. 0 to 10 B. 1 to 11 C. 2 to 19 D. 2 to 12 |