Introduction to probability

MULTIPLE CHOICE

1. Each individual outcome of an experiment is called
   a. the sample space
   b. a sample point
   c. an experiment
   d. an individual

   ANS: B PTS: 1 TOP: Probability Concepts

2. A graphical method of representing the sample points of an experiment is
   a. a frequency polygon
   b. a histogram
   c. an ogive
   d. a tree diagram

   ANS: D PTS: 1 TOP: Probability Concepts

3. Any process that generates well-defined outcomes is
   a. an event
   b. an experiment
   c. a sample point
   d. a sample space

   ANS: B PTS: 1 TOP: Probability Concepts

4. In statistical experiments, each time the experiment is repeated
   a. the same outcome must occur
   b. the same outcome can not occur again
   c. a different outcome may occur
   d. a different out come must occur

   ANS: C PTS: 1 TOP: Probability Concepts

5. The counting rule that is used for counting the number of experimental outcomes when n objects are selected from a set of N objects where *order of selection* **is not** important is called
   a. permutation
   b. combination
   c. multiple step experiment
   d. None of these alternatives is correct.

   ANS: B PTS: 1 TOP: Probability Concepts

6. From a group of six people, two individuals are to be selected at random. How many possible selections are there?
   a. 12
   b. 36
   c. 15
   d. 8

   ANS: C PTS: 1 TOP: Probability Concepts

7. A method of assigning probabilities based upon judgment is referred to as the
   a. relative method
   b. probability method
   c. classical method
   d. subjective method

   ANS: D PTS: 1 TOP: Probability Concepts

8. A graphical device used for enumerating sample points in a multiple-step experiment is a
   a. bar chart
   b. pie chart
   c. histogram
   d. None of these alternatives is correct.

   ANS: D PTS: 1 TOP: Probability Concepts

9. The set of all possible outcomes of an experiment is
   a. an experiment
   b. an event
   c. the population
   d. the sample space

   ANS: D PTS: 1 TOP: Probability Concepts

10. If a dime is tossed four times and comes up tails all four times, the probability of heads on the fifth trial is
    a. smaller than the probability of tails
    b. larger than the probability of tails
    c. 1/2
    d. 1/32

    ANS: C PTS: 1 TOP: Probability Concepts

11. Of five letters (A, B, C, D, and E), two letters are to be selected at random. How many possible selections are there?
    a. 20
    b. 7
    c. 5!
    d. 10

    ANS: D PTS: 1 TOP: Probability Concepts

12. Assume your favorite football team has 2 games left to finish the season. The outcome of each game can be win, lose or tie. The number of possible outcomes is
    a. 2
    b. 4
    c. 6
    d. 9

    ANS: D PTS: 1 TOP: Probability Concepts

13. An experiment consists of tossing 4 coins successively. The number of sample points in this experiment is
    a. 16
    b. 8
    c. 4
    d. 2

    ANS: A PTS: 1 TOP: Probability Concepts

14. Since the sun **must** rise tomorrow, then the probability of the sun rising tomorrow is
    a. much larger than one
    b. zero
    c. infinity
    d. None of these alternatives is correct.

    ANS: D PTS: 1 TOP: Probability Concepts

15. If a coin is tossed three times, the likelihood of obtaining three heads in a row is
    a. zero
    b. 0.500
    c. 0.875
    d. 0.125

    ANS: D PTS: 1 TOP: Probability Concepts

16. Of the last 100 customers entering a computer shop, 25 have purchased a computer. If the classical method for computing probability is used, the probability that the next customer will purchase a computer is
    a. 0.25
    b. 0.50
    c. 1.00
    d. 0.75

    ANS: B PTS: 1 TOP: Probability Concepts

17. A six-sided die is tossed 3 times. The probability of observing three ones in a row is
    a. 1/3
    b. 1/6
    c. 1/27
    d. 1/216

    ANS: D PTS: 1 TOP: Probability Concepts

18. A perfectly balanced coin is tossed 6 times and tails appears on all six tosses. Then, on the seventh trial
    a. tails can not appear
    b. heads has a larger chance of appearing than tails
    c. tails has a better chance of appearing than heads
    d. None of these alternatives is correct.

    ANS: D PTS: 1 TOP: Probability Concepts