* **Question 1**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If P(A) = 0.4, P(B | A) = 0.35, P(A ∪ B) = 0.69, then P(B) = |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  0.43. | | Answers: | a.  0.75. | |  | b.  0.59. | |  | c.  0.43. | |  | d.  0.14. | |  |  |  |

* **Question 2**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Bayes' theorem is used to compute |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  the posterior probabilities. | | Answers: | a.  intersection of events. | |  | b.  the prior probabilities. | |  | c.  the posterior probabilities. | |  | d.  the union of events. | |  |  |  |

* **Question 3**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | From a group of six people, two individuals are to be selected at random. How many selections are possible? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  15 | | Answers: | a.  36 | |  | b.  8 | |  | c.  15 | |  | d.  12 | |  |  |  |

* **Question 4**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Two events with nonzero probabilities |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  can not be both mutually exclusive and independent. | | Answers: | a.  are always mutually exclusive. | |  | b.  can not be both mutually exclusive and independent. | |  | c.  are always independent. | |  | d.  can be both mutually exclusive and independent. | |  |  |  |

* **Question 5**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If a coin is tossed three times, the likelihood of obtaining three heads in a row is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  0.0. | | Answers: | a.  0.875. | |  | b.  0.500. | |  | c.  0.125. | |  | d.  0.0. | |  |  |  |

* **Question 6**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | In an experiment, events A and B are mutually exclusive. If P(A) = 0.6, then the probability of B |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  cannot be larger than 0.4. | | Answers: | a.  can be any value between 0 to 1. | |  | b.  cannot be larger than 0.4. | |  | c.  can be any value greater than 0.6. | |  | d.  cannot be determined with the information given. | |  |  |  |

* **Question 7**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | From nine cards numbered 1 through 9, two cards are drawn. Consider the selection and classification of the cards as odd or even as an experiment. How many sample points are there for this experiment? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  2 | | Answers: | a.  2 | |  | b.  9 | |  | c.  3 | |  | d.  4 | |  |  |  |

* **Question 8**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | An experiment consists of tossing 4 coins successively. The number of sample points in this experiment is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  16. | | Answers: | a.  16. | |  | b.  8. | |  | c.  2. | |  | d.  4. | |  |  |  |

* **Question 9**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If A and B are mutually exclusive events with P(A) = 0.3 and P(B) = 0.5, then P(A ∪ B) = |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  0.80. | | Answers: | a.  0.80. | |  | b.  0.20. | |  | c.  0.00. | |  | d.  0.15. | |  |  |  |

* **Question 10**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If A and B are independent events with P(A) = 0.4 and P(B) = 0.6, then P(A ∩ B) = |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  0.24. | | Answers: | a.  0.24. | |  | b.  1.00. | |  | c.  0.76. | |  | d.  0.20. | |  |  |  |

* **Question 11**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The probability of an intersection of two events is computed using the​ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  ​multiplication law. | | Answers: | a.  ​division law. | |  | b.  ​subtraction law. | |  | c.  ​addition law. | |  | d.  ​multiplication law. | |  |  |  |

* **Question 12**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Six applications for admission to a local university are checked, and it is determined whether each applicant is male or female. How many sample points exist in the above experiment? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  64 | | Answers: | a.  64 | |  | b.  4 | |  | c.  16 | |  | d.  32 | |  |  |  |

* **Question 13**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The complement of P(*A* | *B*) is​ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  ​P(*B* | *A*). | | Answers: | a.  ​P(*A*  *B*). | |  | b.  ​P(*A* | *B*C). | |  | c.  ​P(*B* | *A*). | |  | d.  ​P(*A*C | *B*). | |  |  |  |

* **Question 14**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If two events are independent, then |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  they must be mutually exclusive. | | Answers: | a.  they must be mutually exclusive. | |  | b.  the sum of their probabilities must be equal to one. | |  | c.  their intersection must be zero. | |  | d.  the product of their probabilities gives their intersection. | |  |  |  |

* **Question 15**

0.5 out of 0.5 points

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| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Events A and B are mutually exclusive. Which of the following statements is also true? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  P(A ∪ B) = P(A) + P(B) | | Answers: | a.  A and B are also independent. | |  | b.  P(A ∪ B) = P(A)P(B) | |  | c.  P(A ∪ B) = P(A) + P(B) | |  | d.  P(A ∩ B) = P(A) + P(B) | |  |  |  |

* **Question 16**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Three applications for admission to a local university are checked, and it is determined whether each applicant is male or female. The number of sample points in this experiment is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  8. | | Answers: | a.  8. | |  | b.  2. | |  | c.  4. | |  | d.  6. | |  |  |  |

* **Question 17**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | An experiment consists of selecting a student body president and vice president. All undergraduate students (freshmen through seniors) are eligible for these offices. How many sample points (possible outcomes as to the classifications) exist? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  16 | | Answers: | a.  8 | |  | b.  32 | |  | c.  4 | |  | d.  16 | |  |  |  |

* **Question 18**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If P(A) = 0.62, P(B) = 0.56, and P(A ∪ B) = 0.70, then P(B |  A) =​ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  ​.7742. | | Answers: | a.  ​.7742. | |  | b.  ​.4800. | |  | c.  ​.9032. | |  | d.  ​.3472. | |  |  |  |

* **Question 19**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | ​Posterior probabilities are computed using |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  ​Bayes' theorem. | | Answers: | a.  ​Bayes' theorem. | |  | b.  ​relative frequency. | |  | c.  ​Chebyshev’s theorem. | |  | d.  ​the empirical rule. | |  |  |  |

* **Question 20**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The collection of all possible sample points in an experiment is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  the sample space. | | Answers: | a.  the sample space. | |  | b.  an event. | |  | c.  a combination. | |  | d.  the population. | |  |  |  |

* **Question 21**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | ​Revised probabilities of events based on additional information are |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  ​posterior probabilities. | | Answers: | a.  ​marginal probabilities. | |  | b.  ​complementary probabilities. | |  | c.  ​joint probabilities. | |  | d.  ​posterior probabilities. | |  |  |  |

* **Question 22**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If P(A) = 0.45, P(B) = 0.55, and P(A ∪ B) = 0.78, then P(A | B) = |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  0.40 | | Answers: | a.  0.00 | |  | b.  0.40 | |  | c.  0.22 | |  | d.  0.45 | |  |  |  |

* **Question 23**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A method of assigning probabilities based on historical data is called the |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  relative frequency method. | | Answers: | a.  relative frequency method. | |  | b.  classical method. | |  | c.  historical method. | |  | d.  subjective method. | |  |  |  |

* **Question 24**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | When the assumption of equally likely outcomes is used to assign probability values, the method used to assign probabilities is referred to as the |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  classical method. | | Answers: | a.  classical method. | |  | b.  subjective method. | |  | c.  probability method. | |  | d.  relative frequency method. | |  |  |  |

* **Question 25**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | 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 important is called the |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  counting rule for permutations. | | Answers: | a.  counting rule for permutations. | |  | b.  counting rule for combinations. | |  | c.  counting rule for independent events. | |  | d.  counting rule for multiple-step random experiments. | |  |  |  |

* **Question 26**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The intersection of two mutually exclusive events |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  must always be equal to 0. | | Answers: | a.  must always be equal to 1. | |  | b.  can be any value between 0 to1. | |  | c.  must always be equal to 0. | |  | d.  can be any positive value. | |  |  |  |

* **Question 27**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Assume your favorite soccer 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 |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  9. | | Answers: | a.  9. | |  | b.  6. | |  | c.  4. | |  | d.  2. | |  |  |  |

* **Question 28**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A method of assigning probabilities which assumes that the experimental outcomes are equally likely is referred to as the |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  classical method. | | Answers: | a.  classical method. | |  | b.  subjective method. | |  | c.  experimental method. | |  | d.  objective method. | |  |  |  |

* **Question 29**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | ​The probability of an event is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  ​the sum of the probabilities of the sample points in the event. | | Answers: | a.  ​the sum of the probabilities of the sample points in the event. | |  | b.  ​the maximum of the probabilities of the sample points in the event. | |  | c.  ​the product of the probabilities of the sample points in the event. | |  | d.  ​the minimum of the probabilities of the sample points in the event. | |  |  |  |

* **Question 30**

0.5 out of 0.5 points

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| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Some of the CDs produced by a manufacturer are defective. From the production line, 5 CDs are selected and inspected. How many sample points exist in this experiment? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  32 | | Answers: | a.  25 | |  | b.  10 | |  | c.  30 | |  | d.  32 | |  |  |  |

* **Question 31**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A method of assigning probabilities based upon judgment is referred to as the |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  subjective method. | | Answers: | a.  relative method. | |  | b.  subjective method. | |  | c.  probability method. | |  | d.  classical method. | |  |  |  |

* **Question 32**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The range of probability is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  0 to 1. | | Answers: | a.  0 to infinity. | |  | b.  -1 to 1. | |  | c.  0 to 1. | |  | d.  minus infinity to plus infinity. | |  |  |  |

* **Question 33**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If A and B are independent events with P(A) = .1 and P(B) = .4, then​ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  ​P(A ∪ B) = .5. | | Answers: | a.  ​P(A ∩ B) = .25. | |  | b.  ​P(A ∪ B) = .5. | |  | c.  ​P(A ∩ B) = 0. | |  | d.  ​P(A ∩ B) = .04. | |  |  |  |

* **Question 34**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The union of events A and B is the event containing all the sample points belonging to |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  A or B or both. | | Answers: | a.  B or A. | |  | b.  A or B. | |  | c.  A or B or both. | |  | d.  A or B, but not both. | |  |  |  |

* **Question 35**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If X and Y are mutually exclusive events with P(A) = 0.295, P(B) = 0.32, then P(A | B) = |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  0.0000. | | Answers: | a.  0.6150. | |  | b.  0.0944. | |  | c.  0.0000. | |  | d.  1.0000. | |  |  |  |

* **Question 36**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Each customer entering a department store will either buy or not buy some merchandise. An experiment consists of following 3 customers and determining whether or not they purchase any merchandise. The number of sample points in this experiment is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  8. | | Answers: | a.  6. | |  | b.  4. | |  | c.  2. | |  | d.  8. | |  |  |  |

* **Question 37**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | When the results of experimentation or historical data are used to assign probability values, the method used to assign probabilities is referred to as the |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  subjective method. | | Answers: | a.  posterior method. | |  | b.  classical method. | |  | c.  subjective method. | |  | d.  relative frequency method. | |  |  |  |

* **Question 38**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If P(A) = 0.48, P(A ∪ B) = 0.82, and P(B) = 0.54, then P(A ∩ B) = |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  0.2000. | | Answers: | a.  0.2000. | |  | b.  1.0200. | |  | c.  0.3936. | |  | d.  0.3400. | |  |  |  |

* **Question 39**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Which of the following is not a proper sample space when all undergraduates at a university are considered?​ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  ​S = {freshmen, sophomores} | | Answers: | a.  ​S = {in-state, out-of-state} | |  | b.  ​S = {age under 21, age 21 or over} | |  | c.  ​S = {freshmen, sophomores} | |  | d.  ​S = {a business major, not a business major} | |  |  |  |

* **Question 40**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If P(A) = 0.62, P(B) = 0.47, and P(A ∪ B) = 0.88, then P(A ∩ B) = |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  0.2100. | | Answers: | a.  0.2100. | |  | b.  1.9700. | |  | c.  0.2914. | |  | d.  0.6700. | |  |  |  |

* **Question 41**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If a six sided die is tossed two times and "3" shows up both times, the probability of "3" on the third trial is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  1/6. | | Answers: | a.  much larger than any other outcome. | |  | b.  1/6. | |  | c.  much smaller than any other outcome. | |  | d.  1/216. | |  |  |  |

* **Question 42**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | ​An element of the sample space is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  ​a sample point. | | Answers: | a.  ​a permutation. | |  | b.  ​an experiment. | |  | c.  ​a sample point. | |  | d.  ​an event. | |  |  |  |

* **Question 43**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Which of the following statements is always true? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  P(A) = 1 - P(Ac) | | Answers: | a.  ∑P  1 | |  | b.  P(A) + P(B) = 1 | |  | c.  -1  P(Ei) 1 | |  | d.  P(A) = 1 - P(Ac) | |  |  |  |

* **Question 44**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If P(A) = 0.50, P(B) = 0.40 and P(A ∪ B) = 0.88, then P(B |A) = |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  0.04. | | Answers: | a.  0.04. | |  | b.  0.02. | |  | c.  0.05. | |  | d.  0.03. | |  |  |  |

* **Question 45**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | If A and B are independent events with P(A) = 0.65 and P(A ∩ B) = 0.26, then, P(B) = |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  0.400. | | Answers: | a.  0.390. | |  | b.  0.169. | |  | c.  0.400. | |  | d.  0.650. | |  |  |  |

* **Question 46**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | In the set of all past due accounts, let the event A mean the account is between 31 and 60 days past due and the event B mean the account is that of a new customer. The complement of A is​ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  ​all accounts fewer than 31 or more than 60 days past due. | | Answers: | a.  ​all new customers whose accounts are between 31 and 60 days past due. | |  | b.  ​all accounts fewer than 31 or more than 60 days past due. | |  | c.  ​all accounts from new customers and all accounts that are from 31 to 60 days past due. | |  | d.  ​all new customers. | |  |  |  |

* **Question 47**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The probability of the occurrence of event A in an experiment is 1/3. If the experiment is performed 2 times and event A did not occur, then on the third trial event A |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  has a 2/3 probability of occurring. | | Answers: | a.  must occur. | |  | b.  has a 2/3 probability of occurring. | |  | c.  may occur. | |  | d.  could not occur. | |  |  |  |

* **Question 48**

0.5 out of 0.5 points

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|  | Events A and B are mutually exclusive with P(C) = 0.3 and P(B) = 0.2. Then, P(B c) = |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  0.80. | | Answers: | a.  0.80. | |  | b.  0.06. | |  | c.  0.50. | |  | d.  0.70. | |  |  |  |

* **Question 49**

0.5 out of 0.5 points

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|  | 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 the |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  counting rule for combinations. | | Answers: | a.  counting rule for permutations. | |  | b.  counting rule for combinations. | |  | c.  counting rule for independent events. | |  | d.  counting rule for multiple-step experiments. | |  |  |  |

* **Question 50**

0.5 out of 0.5 points

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|  | In the set of all past due accounts, let the event A mean the account is between 31 and 60 days past due and the event B mean the account is that of a new customer. The intersection of A and B is​ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  ​all new customers whose accounts are between 31 and 60 days past due. | | Answers: | a.  ​all new customers. | |  | b.  ​all accounts fewer than 31 or more than 60 days past due. | |  | c.  ​all new customers whose accounts are between 31 and 60 days past due. | |  | d.  ​all accounts from new customers and all accounts that are from 31 to 60 days past due. | |  |  |  |

* **Question 51**

0.5 out of 0.5 points

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|  | Of five letters (A, B, C, D, and E), two letters are to be selected at random. How many possible are possible? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  10 | | Answers: | a.  10 | |  | b.  7 | |  | c.  20 | |  | d.  5! | |  |  |  |

* **Question 52**

0.5 out of 0.5 points

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|  |  | | | |
|  | If A and B are independent events with P(A) = 0.38 and P(B) = 0.55, then P(A | B) = |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  0.380. | | Answers: | a.  0.380. | |  | b.  0.000. | |  | c.  0.209. | |  | d.  0.550. | |  |  |  |

* **Question 53**

0.5 out of 0.5 points

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|  | The sum of the probabilities of two complementary events is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  1.0. | | Answers: | a.  0. | |  | b.  1.0. | |  | c.  0.57. | |  | d.  0.5. | |  |  |  |

* **Question 54**

0.5 out of 0.5 points

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|  |  | | | |
|  | Any process that generates well-defined outcomes is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  an experiment. | | Answers: | a.  an event. | |  | b.  a sample point. | |  | c.  a sample space. | |  | d.  an experiment. | |  |  |  |

* **Question 55**

0.5 out of 0.5 points

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|  | The set of all possible outcomes of an experiment is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  the sample space. | | Answers: | a.  the sample space. | |  | b.  an event. | |  | c.  a sample point. | |  | d.  the population. | |  |  |  |

* **Question 56**

0.5 out of 0.5 points

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|  | Assume your favorite soccer team has 3 games left to finish the season. The outcome of each game can be win, lose, or tie. How many possible outcomes exist? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  27 | | Answers: | a.  7 | |  | b.  27 | |  | c.  36 | |  | d.  64 | |  |  |  |

* **Question 57**

0.5 out of 0.5 points

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|  | If a penny is tossed three times and comes up heads all three times, the probability of heads on the fourth trial is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  1/2. | | Answers: | a.  1/2. | |  | b.  0. | |  | c.  1/16. | |  | d.  larger than the probability of tails. | |  |  |  |

* **Question 58**

0.5 out of 0.5 points

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|  |  | | | |
|  | Events that have no sample points in common are |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  mutually exclusive events. | | Answers: | a.  complements. | |  | b.  posterior events. | |  | c.  independent events. | |  | d.  mutually exclusive events. | |  |  |  |

* **Question 59**

0.5 out of 0.5 points

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|  | Each customer entering a department store will either buy or not buy some merchandise. An experiment consists of following 4 customers and determining whether or not they purchase any merchandise. How many sample points exist in the above experiment? (Note that each customer is either a purchaser or non-purchaser.) |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  16 | | Answers: | a.  12 | |  | b.  4 | |  | c.  16 | |  | d.  2 | |  |  |  |

* **Question 60**

0.5 out of 0.5 points

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|  | Initial estimates of the probabilities of events are known as |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  prior probabilities. | | Answers: | a.  posterior probabilities. | |  | b.  subjective probabilities. | |  | c.  prior probabilities. | |  | d.  conditional probabilities. | |  |  |  |

Wednesday, February 12, 2020 2:30:09 PM PST