Unit 2 - Week 1

Course outline

How does an NPTEL online course work?

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- Advanced Probability Theory Lec 01
- Advanced Probability Theory Lec 02
- Advanced Probability Theory Lec 03
- Quiz : Assignment 1
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Week 2

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Assignment Solution

Assignment 1

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-02-12, 23:59 IST.

1) What is the size of the sample space of the event consisting of the toss of a fair die followed by the toss of a biased coin with probability of head equal to 0.6?   *1 point*
- 6
- 2
- 12
- 8

No, the answer is incorrect.
Score: 0
Accepted Answers:
12

2) Which of the following is possible values of the probability of an event?   *1 point*
- [ ] 0
- [ ] 1
- [ ] -0.5
- [ ] None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
0
1

3) How many valid, yet different results are there for Bertrand's paradox?   *1 point*
- At least 3
- 1
- 2
- 0

No, the answer is incorrect.
Score: 0
Accepted Answers:
At least 3

4) Find P(B) if P(A) = 0.3, P(AUB)=0.1 and P(A∩B) = 0.5.   *1 point*
- 0.4
- 0.3
- 0.6
- 0.2

No, the answer is incorrect.
Score: 0
Accepted Answers:
0.3

5) Can we construct an event A such that P(A) = 0.6 and P(A') = 0.5 ?   *1 point*
- No
- Yes
- Can't say
- Depends on the Sample Space

No, the answer is incorrect.
Score: 0
Accepted Answers:
No

6) Find $P(A \cap B)$ if $P(A \cup B \cup C) = 0.5, P(A) = 0.5, P(B) = 0.4, P(C) = 0.3, P(A \cap C) = 0.2, P(B \cap C) = 0.3, P(A \cap B \cap C) = 0.1$ *1 point*
- 0.4
- 0.5
- 0.3
- 0.6

No, the answer is incorrect.
Score: 0
Accepted Answers:
0.3

7) What is the probability of complement of a null event?   *1 point*
- 0
- 1
- Can't say
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
1

8) A card is randomly drawn from a standard 52-card deck. Find the probability of drawing a queen and a heart.   *1 point*
- 16/52
- 26/52
- 1/52
- 2/52

No, the answer is incorrect.
Score: 0
Accepted Answers:
1/52

9) A jar contains 2 pink, 6 red, and 4 blue marbles. If you pick one marble at random, what is the probability that the marble you pick will be red or blue?   *1 point*
- 5/6
- 1/2
- 1/3
- 1/6

No, the answer is incorrect.
Score: 0
Accepted Answers:
5/6

10) Five fair coins are flipped simultaneously, what is the probability of having a combination of 3 Heads and 2 tails?   *1 point*
- 1/3
- 5/16
- 1/2
- 3/8

No, the answer is incorrect.
Score: 0
Accepted Answers:
5/16