Started on	Monday, 12 October 2020, 4:16 PM
State	Finished
Completed on	Monday, 12 October 2020, 4:57 PM
Time taken	41 mins 8 secs
Grade	15.00 out of 15.00 (100%)

Question 1

Correct

Mark 2.50 out of 2.50

Flag question

A certain computer becomes inoperable if two components A and B both fail. The probability that A fails is 0.015 and the probability that B fails is 0.028. However, the probability that B fails increases by a factor of 8 if A has failed.

Calculate the probability that computer A fails if B has failed. 0.12

[The answer should be a number rounded to five decimal places, don't use symbols such as %]

One possible correct answer is: 0.12

Your answer is correct.

Question 2

Correct

Mark 2.50 out of 2.50

Flag question

A and B are two disjoint events, assume the probability of A is 0.3 and the probability of B is 0.4.

1) Determine the $P(A \cap B)$. 0.0

[The answer should be a number rounded to five decimal places, don't use symbols such as %]

One possible correct answer is: 0

2) Determine the $P(A \cup B)$. 0.7

[The answer should be a number rounded to five decimal places, don't use symbols such as %]

One possible correct answer is: 0.7

Your answer is correct.

Question 3

Correct

Mark 2.50 out of 2.50

Flag question

In the senior year of a high school graduating class of 88 students, 36 studied mathematics, 64 studied psychology, 46 studied history, 20 studied both mathematics and history, 25 studied both mathematics and psychology, 5 studied history but neither mathematics nor psychology, 10 studied all three subjects, and 8 did not take any of the three.

If a student who studied mathematics is selected, what is the probability that the student has also studied history? 0.5 *[The answer should be a number rounded to five decimal places, don't use symbols such as %]*

One possible correct answer is: 0.55555555555556

Your answer is correct.

Question 4

Correct

Mark 2.50 out of 2.50

Flag question

A factory has two production lines **A** and **B**, production line **A** works 7 days a week, production line **B** works only 5 days a week. Production line **A** produces 5000 items each day where 88% of the produced items are high quality and the rest are of medium quality. Production line **B** produces 3500 items each day where 68% of the produced items are high quality, 17% medium quality, and the rest are of low quality. All items produced after working for many weeks are accumulated in a warehouse.

What is the probability that a high-quality item is produced? 0.8 *[The answer should be a number rounded to five decimal places, don't use symbols such as %]*

One possible correct answer is: 0.81333333333333

Your answer is correct.

Question 5

Correct

Mark 2.50 out of 2.50

Flag question

A box contains 21 good parts and 5 bad parts. If two parts are drawn at random from the box with replacement.

Determine then the probability of obtaining one good part and one bad part 0.3 *[The answer should be a number rounded to five decimal places, don't use symbols such as %]*

One possible correct answer is: 0.31065088757396

Your answer is correct.

Question 6

Correct

Mark 2.50 out of 2.50

Flag question

In a game, a person flips a fair coin twice, and based on the number of heads observed, he will be allowed to shoot so many times (equal to the number of heads observed) on a target. Assume the probability of hitting a target in one shot is 0.25.

What is the probability of hitting the target only once? 0.2 *[The answer should be a number rounded to five decimal places, don't use symbols such as %]*

One possible correct answer is: 0.21875

Your answer is correct.