

## Examrace

### Statistics MCQs – Discrete Distributions Part 6

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101. It is believed that 80 % of STA1000S students got A's for their final matric exams. What is the variance of the number of students who got A's for matric, in samples of size 10?

- a. 2.05
- b. 4.20
- c. 1.26
- d. 1.60
- e. 3.85

Answer: D

102. It is believed that 70 % of STA1000S students got A's for their final matric exams. What is the standard deviation of the number of students who got A's for matric, in samples of size 15?

- a. 1.77
- b. 4.20
- c. 1.26
- d. 1.60
- e. 3.15

Answer: A

103. It is believed that 70 % of STA1000S students got A's for their final matric exams. What is the variance of the number of students who got A's for matric, in samples of size 15?

- a. 1.77
- b. 4.20
- c. 1.26
- d. 1.60

e. 3.15

Answer: E

104. Which of the following is not a characteristic of a Binomial distribution?

- a. There is a sequence of identical trials
- b. The trials are independent of one another
- c. Each trial results in two or more outcomes
- d. The probability of success ( $p$ ) is the same for all trials
- e. There are a finite number of trials

Answer: C

105. A computer that operates continuously breaks down randomly on average 6 times per month (i.e.: 4 weeks) . What is the probability of exactly 4 breakdowns in the first two weeks?

- a. 0.168
- b. 0.134
- c. 0.815
- d. 0.285
- e. 0.547

Answer: A

106. A computer that operates continuously breaks down randomly on average 6 times per month (i.e.: 4 weeks) . What is the probability of exactly 4 breakdowns in the first month?

- a. 0.168
- b. 0.134
- c. 0.815
- d. 0.285
- e. 0.547

Answer: B

107. Tourists enter a popular game reserve at an average rate of one every five minutes. What is the probability that exactly ten tourists arrive within the first hour?

- a. 0.105

- b. 0.114
- c. 0.066
- d. 0.041
- e. 0.161

Answer: A

108. Tourists enter a popular game reserve at an average rate of one every five minutes. What is the probability that exactly eleven tourists arrive within the first hour?

- a. 0.105
- b. 0.114
- c. 0.066
- d. 0.041
- e. 0.161

Answer: B

109. Tourists enter a popular game reserve at an average rate of one every five minutes. What is the probability that exactly eight tourists arrive within the first hour?

- a. 0.105
- b. 0.114
- c. 0.066
- d. 0.041
- e. 0.161

Answer: C

110. Tourists enter a popular game reserve at an average rate of one every ten minutes. What is the probability that exactly ten tourists arrive within the first hour?

- a. 0.105
- b. 0.114
- c. 0.066
- d. 0.041
- e. 0.161

Answer: D

111. Tourists enter a popular game reserve at an average rate of one every ten minutes. What is the probability that exactly five tourists arrive within the first hour?

- a. 0.105
- b. 0.114
- c. 0.066
- d. 0.041
- e. 0.161

Answer: E

112. Tourists enter a popular game reserve at an average rate of one every five minutes. What is the probability that it takes more than ten minutes until the first tourist arrives?

- a. 0.135
- b. 0.050
- c. 0.368
- d. 0.018
- e. 0.002

Answer: A

113. Tourists enter a popular game reserve at an average rate of one every five minutes. What is the probability that it takes more than fifteen minutes until the first tourist arrives?

- a. 0.135
- b. 0.050
- c. 0.368
- d. 0.018
- e. 0.002

Answer: B

114. Tourists enter a popular game reserve at an average rate of one every five minutes. What is the probability that it takes more than five minutes until the first tourist arrives?

- a. 0.135
- b. 0.050
- c. 0.368

d. 0.018

e. 0.002

Answer: C

115. Tourists enter a popular game reserve at an average rate of one every five minutes. What is the probability that it takes more than twenty minutes until the first tourist arrives?

a. 0.135

b. 0.050

c. 0.368

d. 0.018

e. 0.002

Answer: D

116. Tourists enter a popular game reserve at an average rate of one every five minutes. What is the probability that it takes more than half an hour until the first tourist arrives?

a. 0.135

b. 0.050

c. 0.368

d. 0.018

e. 0.002

Answer: E

117. The local police department must write, on average, 5 tickets a day to keep department revenues at budgeted level. Suppose the number of tickets written per day follows a Poisson distribution with a mean of 7.5 tickets per day. What is the probability that exactly 5 tickets are written on a randomly selected day?

a. 0.109

b. 0.146

c. 0.137

d. 0.149

e. 0.128

Answer: A

118. The local police department must write, on average, 5 tickets a day to keep department revenues at budgeted level. Suppose the number of tickets written per day follows a Poisson distribution with a mean of 7.5 tickets per day. What is the probability that exactly 7 tickets are written on a randomly selected day?

- a. 0.109
- b. 0.146
- c. 0.137
- d. 0.149
- e. 0.128

Answer: B

119. The local police department must write, on average, 5 tickets a day to keep department revenues at budgeted level. Suppose the number of tickets written per day follows a Poisson distribution with a mean of 7.5 tickets per day. What is the probability that exactly 8 tickets are written on a randomly selected day?

- a. 0.109
- b. 0.146
- c. 0.137
- d. 0.149
- e. 0.128

Answer: C

120. The local police department must write, on average, 5 tickets a day to keep department revenues at budgeted level. Suppose the number of tickets written per day follows a Poisson distribution with a mean of 7 tickets per day. What is the probability that exactly 6 tickets are written on a randomly selected day?

- a. 0.109
- b. 0.146
- c. 0.137
- d. 0.149
- e. 0.128

Answer: D

## Frequently Asked Questions (FAQs)

### Statistics explanation

( - su...@ on 10-Oct-2020)

#### *1 Answer*

For Statistical Services study materials have been provided on [Statistical Services Topic Wise](#). All the important topics have been covered in the form of Practice questions and answers.

- su...@ on 10-Oct-2020

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