



ST. LAWRENCE HIGH SCHOOL
A JESUIT CHRISTIAN MINORITY INSTITUTION



WORKSHEET-10

SUBJECT - STATISTICS

Term : 1st

Topic – BINOMIAL DISTRIBUTION

Class: XII

Full Marks: 15

Date:10.06.2020

Q1. Select the correct alternative of the following questions.

- (i) The expectation in Binomial distribution (n, p) is
a) np b) n(1- p) c) p(1-p) d) none of these
- (ii) The variance in Binomial distribution (n, p) is
a) np b) np(1- p) c) p (1 -p) d) none of these
- (iii) For a binomial distribution mean is than its variance
a) equal b) greater c) smaller d) none of these
- (iv) The binomial distribution(n, p) is symmetric if and only if
a) $p = \frac{1}{2}$ b) $p > \frac{1}{2}$ c) $p < \frac{1}{2}$ d) none of these
- (v) The binomial distribution(n, p) is positivey skewed if and only if
a) $p = \frac{1}{2}$ b) $p > \frac{1}{2}$ c) $p < \frac{1}{2}$ d) none of these
- (vi) The binomial distribution(n, p) is negatively skewed if and only if
a) $p = \frac{1}{2}$ b) $p > \frac{1}{2}$ c) $p < \frac{1}{2}$ d) none of these
- (vii) The binomial distribution(n, p) attains maximum variance at
a) $p = \frac{1}{2}$ b) $p > \frac{1}{2}$ c) $p < \frac{1}{2}$ d) none of these

- (viii) The binomial distribution(n, p) the maximum variance is
a) $p = \frac{1}{2}$ b) $p = \frac{n}{4}$ c) $p < \frac{1}{2}$ d) none of these
- (ix) $X \sim \text{Bin}(8, 0.5)$ then second order factorial moment is equal to
a) 14 b) 16 c) 18 d) none of these
- (x) $X \sim \text{Bin}(6, 0.5), P(X \leq 3)$ is equal to
a) 0.4 b) 0.5 c) 0.6 d) none of these
- (xi) The symmetric binomial distribution attains maximum
a) mean b) mean deviation c) variance d) none of these
- (xii) The first order central moment of $\text{Bin} \left(n, \frac{1}{3} \right)$ is
a) 0 b) n c) np d)) none of these
- (xiii) The third order central moment of $\text{Bin} \left(n, \frac{1}{2} \right)$ is
a) 0 b) n c) np d)) none of these
- (xiv) the binomial distribution (n, p) is mesokurtic when
a) $p = \frac{1}{2}$ b) $p > \frac{1}{2}$ c) $p < \frac{1}{2}$ d) none of these
- (xiv) Each of two persons tosses an unbiased coin n times each. The probability that both of them get same number of heads is
a) $2n C_n 2^{-2n}$ b) 2^{-2n} c) $\frac{1}{2n}$ d) none of these

Prepared by

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