ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET-29

SUBJECT – STATISTICS

Term : Final

Topic – BINOMIAL DISTRIBUTION **Class: XII**

Full Marks: 15 **Date:16.01.2021**

Q1. Select the correct alternative of the following questions.

(i) The mean deviation in Binomial distribution (7, $\frac{1}{6}$) is

a) 0.39 b) 0.93 c) 0.49 d) none of these

(ii) The maximum variance in Binomial distribution (5, p) is

b) 1.20 b) 1.25 c) 2.25 d) none of these

(iii) For a binomial distribution if mean is equal to its variance, then p is equal to

a) 0 b) 1 c) either 0 or 1 d) none of th

(iv) The binomial distribution(n+2, $\frac{p}{2}$) is mesokurtic if and only if

a) p = 1 b) $p > 1$ c) $p < 1$ d) none of these

(v) The binomial distribution(n+3, p) is leptokurtic if and only if

a) $p = \frac{1}{2}$ b) $p > \frac{1}{2}$ c) $p < \frac{1}{2}$ d) none of these

(vi) All odd-ordered central moments are zero for a distribution which is

a) Positively skewed b) negatively skewed c)symmetric d) none of these

(vii) Expectation of a discrete random variable assuming integral values must be

a) Integer b) non integer c) rational number d) none of these

(viii) For a random variable X, the first order central moment is always

a) 0 b) -1 c) 1 d) none of these

(ix) For a symmetrically distributed random variable X, $(X \leq mode) * P(X \geq mode)$, * is

a) + b) = c) ≠ d) none of these

(x) If a random variable X defines waiting time in a bus stand, then X follows

a) binomial b) Poisson c) Uniform d) none of these

(xi) If X$\sim Poisson(2)$, then P(X= 3) is

a) $2e^{-2}$ b) $\frac{4}{3}e^{2}$ c) $2e^{-1}$ d) none of these

(xii) If X$\sim Poisson(1)$, then P(X= 0) is

a) $2e^{-2}$ b) $2e^{2}$ c) e^{-1} d) none of these

(xiii) Standard deviation of a Poisson distribution is 2. Then the value of β_2 is

a) 0.25 b) 0.75 c) 0.57 d) none of these

(xiv) The probability distribution which has mean is greater than its standard deviation is

a) binomial b) Poisson c) Uniform d) none of these

(xv) The mode of uniform distribution is represented by

a) all the observations b) none of the observatyion

c) few observations d) none of these

Prepared by

Sanjay Bhattacharya