ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET-12

SUBJECT – STATISTICS

Term : Pretest

Topic – BINOMIAL DISTRIBUTION **Class: XII**

Full Marks: 15 **Date:12.06.2020**

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) The binomial distribution(n+3, p) is platykurtic 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+3, 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 minimum expectation is

a) np b) n(n-1)p^2 c) np(1-p) d) none of these

(ix) X~ $Bin(8, 0.5)$ then second order factorial moment is equal to

a) 14 b) 16 c) 18 d) none of these

(x) X~ $Bin(8, 0.5), P(X > 8)$ is equal to

a)1 b) 0 c) 0.5 d) none of these

(xi) The binomial distribution attains maximum variance when it is

a) mesokurtic b) leptokurtic c) platykurtic d) none of these

(xii) The mean deviation about mean is equal to mean deviation about median in Bin (n, p) when p is equal to

a) $\frac{1}{2}$ b) $\frac{1}{3}$ c) 0 d)) none of these

(xiii) The 7^{th} order central moment of Bin (n, $\frac{1}{2}$) is

a) 0 b) n c) $\frac{n}{2}$ d)) none of these

(xiv) For the binomial distribution (12, $\frac{1}{2}$) , the probability P(X = atleast 1)

a) $(\frac{1}{2})^{12}$ b) $1 - (\frac{1}{2})^{12}$ c) $1 - (\frac{2}{3})^{12}$ d) none of these

(xiv) A person tosses an unbiased coin repeatedly. Find the probability that in 4^{th} throw he gets the second head

a) $\frac{1}{16}$ b) $\frac{3}{16}$ c) $\frac{1}{4}$ d) none of these

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