ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET-14

SUBJECT – STATISTICS

Term : PRE TEST

Topic – POISSON DISTRIBUTION **Class: XII**
Full Marks: 15 **Date:15.06.2020**

Q1. Select the correct alternative of the following questions.

(i) The expectation in Poisson distribution (3) is
a) 4 b) 6 c) 3 d) none of these

(ii) The variance in Poisson distribution (2) is
b) 2 b) 3 c) 2.25 d) none of these

(iii) Binomial distribution tends to Poisson distribution when p is too
a) small b) large c) 0.5 d) none of these

(iv) Binomial distribution tends to Poisson distribution when n is too
a) small b) large c) 0.5 d) none of these

(v) Binomial distribution tends to Poisson distribution when np is
a) 0 b) 1 c) constant d) none of these

(vi) X$\sim Bin(8,p) and\ Y \sim Poisson\ (5)$ independently, then covariance between X and Y is
a) 0 b) 0.5 c) -0.5 d) none of these

(vii) X$\sim Poisson(\lambda), P(X \geq a)$ is
a) left continuous b) right continuous c)continuous d) none of these

(viii) If for a random variable X $\sim Poisson(\lambda)$, E(X−E(X)) is equal to
a) 0 b) 1 c) 0.5 d) none of these

(ix) If a random variable X defines the number of misprints per page of a book, then X follows

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

(x) If X$\sim Poisson(2)$, then P(X= 1) is

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

(xi) If X$\sim Poisson(1)$, then P(X$\leq$ 1) is

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

(xii) In case of Poisson distribution the trials are

a) countable b) uncountable c) semicountable d) none of these

(xiii) The probability distribution which has mean eual to variance is

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

(xiv) The 2nd order central moment of Poisson (6) is

a) 4 b) 3 c) 6 d) none of these

(xv) If X$\sim Poisson(0.5)$, then P(X= 0) is

a) $e^{-0.5}$ b) $e^{0.5}$ c) e^{-3} d) none of these

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