



SOLUTION OF WORKSHEET-14

SUBJECT - STATISTICS

Term : PRE TEST

Topic - POISSON DISTRIBUTION Full Marks: 15

Class: XII 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					
	a) sinan	b) large	c) 0.5	d) none of these		
(iv)	Binomial dist	ribution tends t	to Poisson distribution when $n = 0.05$	is too d) none of these		
	u) shiun	b) lui ge	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)	$X \sim Poisson(\lambda), P(X \ge a)$ is					
	a) left continu	ious b) rig	ht continuous c)continuous	d) none of these		

	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) 2 <i>e</i> ²	c) 2 <i>e</i> ⁻¹	d) none of these		
(xi)	If $X \sim Poisson(1)$, then $P(X \le 1)$ is					
	a) $2e^{-2}$	b) 2 <i>e</i> ²	c) 2 <i>e</i> ⁻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 equal to variance is					
	a) binomial	b) Poisson	c) Uniform	d) none of these		
(xiv)	The 2 nd 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) <i>e</i> ^{0.5}	c) <i>e</i> ⁻³	d) none of these		

(viii) If for a random variable $X \sim Poisson(\lambda)$, E(X-E(X)) is equal to

•

Prepared by

Sanjay Bhattacharya