ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

FOR GOD AND COUNTRY

Solutions of Worksheet-27

SUBJECT – MATHEMATICS

2nd-term

Chapter: Probability **Class: XII**

Topic : Probability **Date: 21.11.2020**

Choose the correct option (1 X 15= 15)

Question 1.

If A and B are two independent events, then

● P(A∩B) = P(a) × P(b)

(b) P(AB) = 1 − P(A′) P(B′)

(c) P(AB) = 1 + P (A′) P(B′) P(A′)

(d) P (AB) = $\frac{P(A')}{P(B')}$

Question 2.

The probability of an event is $\frac{3}{7}$. Then odd against the event is

● 4 : 3

(b) 7 : 3

(c) 3 : 7

(d) 3 : 4

Question 3.

A pair of dice are rolled. The probability of obtaining an even prime number on each die is

● $\frac{1}{36}$

(b) $\frac{1}{12}$

(c) $\frac{1}{6}$

(d) 0

Question 4

If P(a) = $\frac{3}{8}$, P(b) = $\frac{1}{3}$ and P(A∩B) = — then P (A' ∩B')

(a) $\frac{13}{24}$

(b) $\frac{13}{8}$

(c) $\frac{13}{9}$

(d) $\frac{13}{4}$

Question 5.

P(A∩B) = $\frac{3}{8}$, P(b) = $\frac{1}{2}$ and P(a) = $\frac{1}{4}$ then P($\frac{B'}{A'}$) =

(a) $\frac{3}{5}$

(b) $\frac{5}{8}$

(c) $\frac{3}{8}$

(d) $\frac{5}{6}$

Question 6.

If A and B are two events such that P(a) ≠ 0 and P($\frac{B}{A}$) = 1 then

(a) P($\frac{A}{B}$) = 1

(b) P($\frac{B}{A}$) = 1

(c) P($\frac{A}{B}$) = 0

(d) P($\frac{B}{A}$) = 0

Question 7.

If P (a) = $\frac{3}{8}$, P(b) = $\frac{1}{2}$ and P(A∩B) = $\frac{1}{4}$ then P($\frac{A'}{B'}$) =

(a) $\frac{1}{4}$

(b) $\frac{1}{3}$

(c) $\frac{3}{4}$

(d) $\frac{3}{8}$

Question 8.

If A and B are two events such that P(a) ≠ 0 and P($\frac{B}{A}$) = 1, then

(a) B ⊂ A

(b) B = φ

(c) A ⊂ B

(d) A ∩ B = φ

Question 9.

If A and B are any two events such that P(a) + P(b) – P(A∩B) = P(a) then

(a) P($\frac{B}{A}$) = 1

(b) P($\frac{B}{A}$) = 0

(c) P($\frac{A}{B}$) = 1

(d) P($\frac{A}{B}$) = 0

Question 10.

If A and B are events such that P (A∪B) = $\frac{3}{4}$. P(A∩B) = $\frac{1}{4}$, P(a) = $\frac{2}{3}$ then P(AB) is

(a) $\frac{3}{8}$

(b) $\frac{5}{8}$

(c) $\frac{5}{12}$

(d) $\frac{1}{4}$

Question 11.

If one card is drawn out of 52 playing cards, the probability that it is an dice is

(a) $\frac{1}{26}$

(b) $\frac{1}{13}$

(c) $\frac{1}{52}$

(d) $\frac{1}{4}$

Question 12.

The chance of getting a doublet with 2 dice is

(a) $\frac{2}{3}$

(b) $\frac{1}{6}$

(c) $\frac{5}{6}$

(d) $\frac{5}{36}$

Question 13.

Two number are chosen, one by one without replacement from the set of number A = {1, 2, 3, 4, 5, 6} then the probability that minimum value of two number chosen is less than 4 is

(a) $\frac{14}{15}$

(b) $\frac{1}{15}$

(c) $\frac{1}{5}$

(d) $\frac{8}{5}$

Question 14.

If P(x) = $\frac{2}{15}$; y = 1, 2, 3, 4, 5, 0 otherwise then P|x = 1 or 2| is

(a) $\frac{1}{15}$

(b) $\frac{2}{15}$

● $\frac{1}{5}$

(d) None of these

Question 15.

Five horse are in a race. Mr. A select two of the horses at random and best on them. The probability that Mr. A select the winning horses is

(a) $\frac{4}{5}$

(b) $\frac{3}{5}$

(c) $\frac{1}{5}$

● $\frac{2}{5}$

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