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1. Which of the following mentioned standard Probability density functions is applicable to discrete Random Variables ?

- a) Gaussian Distribution
- b) Poisson Distribution
- c) Rayleigh Distribution
- d) Exponential Distribution

View Answer

Answer: b

Explanation: None.

2. What is the area under a conditional Cumulative density function ?

- a) 0
- b) Infinity
- c) 1
- d) Changes with CDF

View Answer

Answer: c

Explanation: Area under any conditional CDF is 1.

3. When do the conditional density functions get converted into the marginally density functions ?

- a) Only if random variables exhibit statistical dependency
- b) Only if random variables exhibit statistical independency
- c) Only if random variables exhibit deviation from its mean value
- d) If random variables do not exhibit deviation from its mean value

View Answer

Answer: b

Explanation: None.

4. Mutually Exclusive events

- a) Contain all sample points
- b) Contain all common sample points
- c) Does not contain any sample point
- d) Does not contain any common sample point

View Answer

Answer: d

Explanation: Events are said to be mutually exclusive if they do not have any common sample point.

5. What would be the probability of an event 'G' if H denotes its complement, according to the axioms of probability?

a)  $P(G) = 1 / P(H)$

b)  $P(G) = 1 - P(H)$

c)  $P(G) = 1 + P(H)$

d)  $P(G) = P(H)$

View Answer

Answer: b

Explanation: According to the given statement  $P(G) + P(H) = 1$ .

6. A table with all possible value of a random variable and its corresponding probabilities is called

a) Probability Mass Function

b) Probability Density Function

c) Cumulative distribution function

d) Probability Distribution

View Answer

Answer: d

Explanation: The given statement is the definition of a probability distribution.

7. A variable that can assume any value between two given points is called

a) Continuous random variable

b) Discrete random variable

c) Irregular random variable

d) Uncertain random variable

View Answer

Answer: a

Explanation: This is the definition of a continuous random variable.

8. If a variable can certain integer values between two given points is called

a) Continuous random variable

b) Discrete random variable

- c) Irregular random variable
- d) Uncertain random variable

View Answer

Answer: b

Explanation: This is the definition of a Discrete random variable.

9. The expected value of a discrete random variable 'x' is given by

- a)  $P(x)$
- b)  $\sum P(x)$
- c)  $\sum x P(x)$
- d) 1

View Answer

Answer: c

Explanation: Expected value refers to mean which is given by <http://mathurl.com/zqymzn7> in case of discrete probability distribution.

10. If 'X' is a continuous random variable, then the expected value is given by

- a)  $P(X)$
- b)  $\sum x P(x)$
- c)  $\int X P(X)$
- d) No value such as expected value

View Answer

Answer: c

Explanation: Since X is a continuous random variable, its expected value is given by c.