## MCQ Bank

## Statistics 2nd Paper

## Chapter 02: Random Variable Abdullah Al Mahmud

1.	If X denotes number	of successes in a coin	toss, how many po	ossible possible values of X a	re there?
	(a) 0	(b) 1	(c) 2	(d) 3	
2. Which one is a correct condition of a pdf?					

(a) 
$$\int_{0}^{1} f(x)dx = 1$$
   
(b)  $P(X) \ge 0$    
(c)  $\int_{a}^{b} f(x)dx = 1; a \le x \le b$    
(d)  $\int_{0}^{Median} f(x)dx = 0.55$ 

Answer the next two questions according to the following information.

$$P(x,y) = \frac{x+2y}{16}$$

3. P(X) = ?(a)  $\frac{x+2y}{3}$ (b)  $\frac{2x+y}{3}$ (c)  $\frac{2x+3y}{3}$ (d)  $\frac{x+3}{4}$ 

4. 
$$P(X|Y=0) = ?$$
 (a)  $\frac{x+2y}{4y+1}$  (b) 1 (c)  $x$  (d) 0

5. 
$$P(x) = \frac{1}{n}$$
 and  $x = 1, 2, 3, \dots; E(X) = ?$ 
(a)  $\frac{n}{2}$ 
(b)  $\frac{n-1}{2}$ 
(c)  $\frac{n+1}{2}$ 
(d)  $n+1$ 

6. If a neutral coin is tossed 5 times, what is the probability that there would be at least 2 heads?

(a) 
$$0.81$$
 (b)  $0.5$  (c)  $0.31$  (d)  $0.16$ 

Answer Key: (Correction required for 4 thru last)

1. (a) 0 3. (a) 
$$\frac{x+2y}{3}$$
 5. (a)  $\frac{n}{2}$ 

2. (a) 
$$\int_0^1 f(x)dx = 1$$
 4. (a)  $\frac{x+2y}{4y+1}$  6. (a) 0.81