

# Assignment 1

Jaswanth Chowdary Madala

1) If  $\Pr(A) = \frac{1}{2}$ ,  $\Pr(B) = 0$ , then  $\Pr(A|B)$  is

- a) 0
- b)  $\frac{1}{2}$
- c) not defined
- d) 1

**Solution:** Given that the probability of event  $B$  occurring is zero i.e., event  $B$  does not occur. But the following expression

$$\Pr(A|B) \quad (0.0.1)$$

describes the probability of event  $A$  occurring given that event  $B$  occurred. Hence, we have

$$\Pr(A|B) \text{ not defined} \quad (0.0.2)$$