Assignment Probability

P PAVAN KUMAR

FWC22088

padmanabhunipavan0@gmail.com IITH Future Wireless Communication (FWC)

probability

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Problem

1. Q:12,13.2,1

13.2.1 If $\Pr\{A\} = \frac{3}{5}$ and $\Pr\{B\} = \frac{1}{5}$ find $\Pr(\mathbf{A} \cap \mathbf{B})$ if A and B are independent events? solution:

$$P(A) = \frac{3}{5}, P(B) = \frac{1}{5}$$
 (13.2.1.1)

$$P(AB) = P(A) * P(B)$$
 (13.2.1.2)

$$P(AB) = \frac{3}{5} * \frac{1}{5}$$

$$P(AB) = \frac{3}{25}$$
(13.2.1.4)

$$P(AB) = \frac{3}{25} \tag{13.2.1.4}$$