

Sol,

$$\therefore \text{Probability of Event} = \frac{\text{No of ways of occurrence of events}}{\text{Total possible outcome}}$$

$$\text{prob. of having group AB} = \frac{125}{1000}$$

$$\therefore \text{---} = \frac{1}{8} \text{ Ans}$$

- (a) Classification of blood groups is based on the presence or absence of inherited antigenic substances on the surface of red blood cells. In a survey of British population the blood group distribution among 1000 people was as follows: 300 had blood group A, 325 had blood group B, 250 had O and 125 AB. Out of this group a person was selected at random, calculate his probability of having blood group AB
- b) Five friends Ahmad, Ali, Akbar, Nasir and Shehbaz went on summer vacation

Average monthly income,
P and Q = 5050

$$Q \text{ and } R = 6250$$

$$P \text{ and } R = 5200$$

Find the average income of P

By using formula,

$$\text{Mean} = \frac{\text{Sum of observation}}{\text{No. of observation}}$$

$$\Rightarrow 5050 = \frac{P+Q}{2}$$

$$P+Q = 10,100 \rightarrow \textcircled{i}$$

$$6250 = \frac{Q+R}{2}$$

$$Q+R = 12,500 \rightarrow \textcircled{ii}$$

$$5200 = \frac{P+R}{2}$$

$$P+R = 10,400 \rightarrow \textcircled{iii}$$

By adding the three equations.

$$P+Q+Q+R+P+R = 10,100 + 12,500 + 10,400$$

$$2P+2Q+2R = 33,000$$

$$2(P+Q+R) = 33,000$$

$$P+Q+R = \frac{33,000}{2}$$

$$P+Q+R = 16,500$$

$$P + 12,500 = 16,500$$

$$P = 16,500 - 12,500$$

$$P = 4000$$