

Quiz 2 Q. 1

a) $E_1 = 2 \rightarrow 3 \rightarrow 4$ 0.6×0.6
 $E_2 = 2 \rightarrow 3 \rightarrow 2 \rightarrow 3 \rightarrow 4$ $0.6^3 \times 0.4$
 $E_3 = 2 \rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow 4$ 0.4×0.6^3
0.533

b) $\frac{E_1}{E_1 + E_2 + E_3} = \underline{0.68}$

c) $2 \rightarrow 3 \rightarrow 4$ 0.36
 $2 \rightarrow 3 \rightarrow 2 \rightarrow 3 \rightarrow 4$ $0.6^3 \times 0.4$
 $2 \rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow 4$ $0.6^3 \times 0.4$
 $2 \rightarrow 1 \rightarrow 0$ $(0.4)^2$
 $2 \rightarrow 3 \rightarrow 2 \rightarrow 1 \rightarrow 0$ 0.6×0.4^3
 $2 \rightarrow 1 \rightarrow 2 \rightarrow 1 \rightarrow 0$ $0.4^3 \times 0.6$
0.47 (Ans)

2) $2 \rightarrow 1 \rightarrow 2 \rightarrow 3$ $0.4 \times 0.6 \times 0.6$
 $2 \rightarrow 3 \rightarrow 4$ 0.6^2
 $2 \rightarrow 3 \rightarrow 2 \rightarrow 3$ $0.6^2 \times 0.4$
0.65 (Ans)

d) $P^4 =$
 $2 \rightarrow 3 \rightarrow 2 \rightarrow 3 \rightarrow 2 \rightarrow 1$ $0.6^2 \times 0.4^3$
 $2 \rightarrow 3 \rightarrow 2 \rightarrow 1 \rightarrow 2 \rightarrow 1$ $—$
 $2 \rightarrow 1 \rightarrow 2 \rightarrow 1 \rightarrow 2 \rightarrow 1$ $—$
0.069