

Question		Answer	Marks	Part Marks and Guidance	
1	(a)	0.2 and 0.8 correctly placed throughout	2	B1 for 0.2 correctly placed once	
	(b)	0.36 oe	3	M2 for $1 - (0.8 \times 0.8)$ oe or for $(0.8 \times 0.2) + (0.2 \times 0.8) + (0.2 \times 0.2)$ oe soi Or M1 for 0.8×0.2 or 0.2×0.8 or 0.2×0.2 oe soi	FT <i>their</i> tree for M2 or M1 May be on diagram

2	(a)	0.8, 0.2 correctly placed throughout	2	M1 for 0.2 placed correctly once	
	(b)	0.32 oe	3	M2 for $0.8 \times 0.2 + 0.2 \times 0.8$ oe Or M1 for 0.8×0.2 oe soi	$0.8 \times \text{their} 0.2 + \text{their} 0.2 \times \text{their} 0.8$ oe $0.8 \times \text{their} 0.2$ <u>or</u> $\text{their} 0.2 \times \text{their} 0.8$ oe seen

3	(a)	$\frac{1}{5}$ and $\frac{4}{5}$ oe placed correctly throughout	3	B1 for $\frac{1}{5}$ oe placed correctly once And B1 for $\frac{4}{5}$ oe placed correctly once	
	(b)	$\frac{8}{25}$ or 0.32 or 32%	3	M2 for $\frac{1}{5} \times \frac{4}{5} + \frac{4}{5} \times \frac{1}{5}$ oe Or M1 for $\frac{1}{5} \times \frac{4}{5}$ oe Or SC2 for answer of $\frac{9}{20}$ oe	FT M2 or M1 for <i>their</i> probabilities

4	(a)		0.2 placed correctly 0.3 placed correctly three times	1 1		
	(b)		0.29 oe	3	<i>In (a) and (b) -1 once for poor notation</i> M2 for $0.5 \times 0.4 + 0.3 \times 0.3$ oe Or M1 for 0.5×0.4 <u>or</u> 0.3×0.3 oe	Eg 0.29/1 etc With no extra Seen separately
	(c)		0.33 oe nfw	3	M2 for $0.5 \times 0.3 + 0.3 \times 0.4 +$ <i>their</i> $0.2 \times$ <i>their</i> 0.3 oe Or M1 for 0.5×0.3 <u>or</u> 0.3×0.4 <u>or</u> <i>their</i> $0.2 \times$ <i>their</i> 0.3 oe	With no extra Seen separately

5	(a)		0.6, 0.4 oe correctly placed throughout	2	M1 for 0.4 oe placed correctly once	
	(b)		0.48 oe	3	M2 for $(0.6 \times 0.4) + (0.4 \times 0.6)$ oe soi Or M1 for 0.6×0.4 oe soi Or SC1 for $1 - (0.4 \times 0.4)$ oe soi	FT from <i>their</i> tree for M marks only