Qu 1	Scheme	Marks	AO
(a)	[0.13 + 0.25 =] **0.38**	B1 **(1)**	1.1b
(b)	Independence implies: e.g. $\left[\mathrm{P}(B\cap C)=\mathrm{P}(B)\times\mathrm{P}(C) \Rightarrow\right]$ $0.3=(0.3+0.05+0.25)\times(0.3+p)$	M1	1.1b
	So p = **0.2**	A1	1.1b
	[Sum of probabilities = 1 gives] q = **0.07**	B1ft **(3)**	1.1b
(c)	$[\mathrm{P}(A\mid B')=]\dfrac{\mathrm{P}(A\cap B')}{\mathrm{P}(B')}$ or $\dfrac{0.13}{(1-0.6)}$ or $\dfrac{(0.13+"0.2"+"0.07")}{}$	M1	1.1b
	$=\dfrac{13}{40}$ or **0.325**	A1 **(2)**	1.1b
		(6 marks)	

Notes

(a) B1 for 0.38 (or exact equivalent)

If answers are given on Venn Diagram and in the script then the script takes precedence.

(b) M1 for a correct equation in p or P(C) only.
May be implied by an answer of p = 0.2 **provided** this does not come from incorrect working.
Condone missing brackets if they get 0.2
Other rules for independence will give simple rearrangements of this equation.

Beware If p = 0.2 comes from incorrect working, we've seen $p=\frac{0.6}{0.3}=0.2$, score M0A0

A1 for p = 0.2 (or exact equivalent)
B1ft for q = 0.07 (or exact equivalent) ft their p i.e. q = 0.27 – "0.2" where 0 „ p „ 0.27

(c) M1 for a correct ratio of probability expressions or a correct ratio of probabilities ft their values of p and q (provided both probabilities) or letters p and q
A1 for 0.325 or exact equivalent. Correct answer only will score 2/2
NB on epen this is labelled M1 but treat it as A1