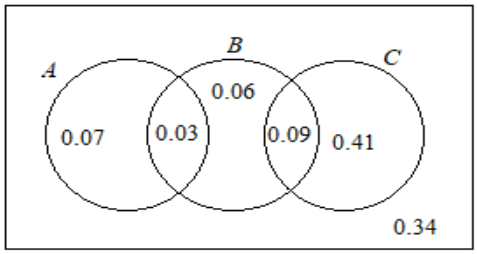
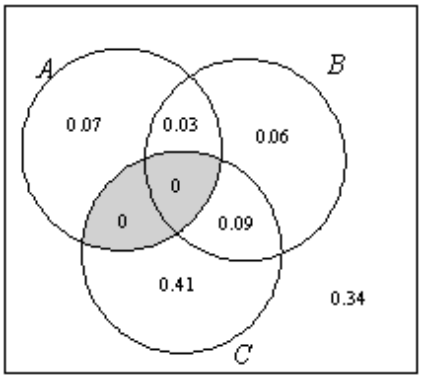
Qu	Scheme	Marks
6(a)	0.6	B1
		(1)
(b)	$\left[\mathrm{P}\left(A\cap B\right)=\right]0.1\times0.3$ **or** $0.3=\dfrac{\mathrm{P}\left(A\cap B\right)}{0.1}$	M1
	$0.25=0.1+\mathrm{P}\left(B\right)-\text{"0.03"}$ **or** $0.25=0.1+\mathrm{P}\left(B\right)-\mathrm{P}\left(A\cap B\right)$	M1
	$0.25=0.1+\mathrm{P}\left(B\right)-0.03$ **or** $0.3=\dfrac{\mathrm{P}\left(B\right)-0.15}{0.1}$ $\therefore$ P(B) = 0.18*	A1*
		(3)
(c)	 	M1 M1 B1ft B1ft A1
		(5)
	Notes	**Total 9**
(a)	B1cao	
(b)	M1 for use of $\mathrm{P}\left(B\mid A\right)=\dfrac{\mathrm{P}\left(A\cap B\right)}{P(A)}$ with 0.1 and 0.3 substituted. Allow for 0.1×0.3 seen	
	M1 $0.25=0.1+\mathrm{P}\left(B\right)-p$ where $0<p<1$ or $p=\mathrm{P}\left(A\cap B\right)$ oe eg $0.25-0.1+p=\mathrm{P}\left(B\right)$ (allow any letter for P(B))	
	A1* P(B) = 0.18 depends on both previous M marks for a fully correct equation in terms of P(B) (allow any letter for P(B)) followed by P(B) = 0.18	
	NB 0.03 used/stated with no working could get M0M1A0 Using $\mathrm{P}\left(A\cap B\right)=0.1\times\mathrm{P}(B)$ then they get M0M0A0 **Verification** could get M1M1A0 M1 for 0.1×0.3 M1 for $0.25-0.18-0.1=-0.03$ or $0.3=\dfrac{0.18-0.15}{0.1}$ or $0.25=0.1+0.18-\mathrm{P}\left(A\cap B\right)$	
(c)	M1 for 3 circles as per either diagram. If using Diagram 2 we must see exactly 2 zeros in one of the intersections (as shaded). (**Do Not** accept blank or dash instead of 0) Condone missing rectangle. Ignore labels	
	M1 for 0.09 and 0.41 marked correctly in diagram – condone incorrect/no label but must be in the left or right hand circles in 1st diagram or must have zeros (condone blank or dash) in the 2 other regions of the circle if in 2nd diagram	
	B1ft their "0.03" in correct place on diagram. Correct label required	
	B1ft for 0.34 or ft 0.75 – "their 0.41" where their $0.41\neq0.5$ No other ft accepted. Do not allow 0.75	
	A1 fully correct Venn diagram including the rectangle and all 3 labels.	
	SC no labels could get M1M1B0B1A0 if using 3 intersecting circles must have blanks or 0 for the 2nd M1	