Question Number	Scheme			Marks
2(a)	1			B1
				(1)
(b)	$a = 0.26 - 0.1$	$b = 0.26 + 0.28$ or 'a' + 0.38 or $0.76 -$ 'c'	$c = 0.76 -$ 'b' or $1 - (0.62 +$ 'a')	M1
	$a = 0.16$	$b = 0.54$	$c = 0.22$	A1A1
				(3)
(c)	0.24			B1
				(1)
(d)	P(X is an odd number) = 0.1 + 0.28 + 0.24= 0.62			
	P(X_1 and X_2 are both odd) = 0.62^2 or $0.1^2 + 0.28^2 + 0.24^2 + 2\times0.1\times0.28 + 2\times0.1\times0.24 + 2\times0.24\times0.28$			M1
	= 0.3844		awrt 0.384	A1
				(2)
(e)	[P($X_1 + X_2 = 6$ | both are odd) =] $\frac{P(X_1 + X_2 = 6 \cap X_1 \text{ and } X_2 \text{ are odd})}{P(X_1 \text{ and } X_2 \text{ are odd})}$			M1
	$= \frac{0.1\times0.24 + 0.28\times0.28 + 0.24\times0.1}{'d'} = \frac{0.1264}{'d'}$			A1ft
	= 0.32882….		awrt 0.329	A1
				(3)

	Notes	Total 10
(a)	**B1**	Cao
(b)	**M1**	For any correct calculation (may be implied by one correct answer) ft their values for a, b or c provided these result in a probability
	A1	For one correct value
	A1	For all 3 correct answers
(c)	**B1**	Cao
(d)	**M1**	For a complete correct expression ft their values for a and c e.g. $(1 - ('a' + 'c'))^2$ May be implied by awrt 0.384 or $\frac{961}{2500}$
	A1	Awrt 0.384 or $\frac{961}{2500}$
(e)	**M1**	For a correct conditional probability expression may be implied by a correct numerator awrt 0.126 or $\frac{79}{625}$ and a denominator ft part d. May be stated in words e.g. $\frac{P(\text{sum} = 6 \cap \text{odd})}{P(\text{odd})}$ oe Do not allow P($X_1 + X_2 = 6$ | both are odd) on its own
	A1ft	For a correct numerator (may be implied by awrt 0.126 or $\frac{79}{625}$) and denominator ft their part d
	A1	Awrt 0.329 or $\frac{316}{961}$