Question	Answer	Marks	Partial Marks
5(a)	$f(x) = (x-1)(x-4)$ oe and $f(x) = -(x-1)(x-4)$ oe	**B2**	**B1** for either correct
5(b)	Factorised form: $(5x-1)(x-n)(x-(n+1))$ oe	**B1**	
	their $-1\times(-n)\times(-(n+1)) = -2$	**M1**	
	$n = -2$ as the only valid solution	**A1**	
	Multiplies out $(5x-1)(x+2)(x+1)$	**M1**	
	$5x^3+14x^2+7x-2$ or $a = 14$ and $b = 7$ following $n = -2$	**A1**	
	Alternative method 1:		
	Factorised form: $(5x-1)(x-n)(x-(n+1))$ oe	**(B1)**	
	Multiplies out $5x^3+(-10n-6)x^2+(5n^2+7n+1)x$ $-(n^2+n)$	**(M1)**	
	their $(n^2+n) = 2$ oe	**(M1)**	
	$n = -2$ as the only valid solution	**(A1)**	
	$5x^3+14x^2+7x-2$ or $a = 14$ and $b = 7$ following $n = -2$	**(A1)**	

Question	Answer	Marks	Partial Marks
5(b)	**Alternative method 2:**		
	Using product of roots: $\frac{1}{5}n(n+1) = -\left(\frac{-2}{5}\right)$ oe	**(M1)**	
	$n = -2$ as the only valid solution	**(A1)**	
	Using sum of roots and/or sum of products of pairs of roots, solves to find a or b: $\frac{1}{5} + n + n + 1 = -\frac{a}{5}$ oe and/or $\frac{1}{5}(n) + n(n+1) + \frac{1}{5}(n+1) = \frac{b}{5}$	**(M1)**	
	$a = 14$ or $b = 7$	**(A1)**	
	$5x^3 + 14x^2 + 7x - 2$ or $a = 14$ and $b = 7$ following $n = -2$	**(A1)**	
			If 0 scored for any method, **SC3** for $5\left(\frac{1}{5}\right)^3 + a\left(\frac{1}{5}\right)^2 + b\left(\frac{1}{5}\right) - 2 = 0$ oe **and** $5n^3 + an^2 + bn - 2 = 0$ oe or $5(n+1)^3 + a(n+1)^2 + b(n+1) - 2 = 0$ oe leading to $a = 14$, $b = 7$ with $n = -1$ or n not stated or **SC1** for $5\left(\frac{1}{5}\right)^3 + a\left(\frac{1}{5}\right)^2 + b\left(\frac{1}{5}\right) - 2 = 0$ oe or $5n^3 + an^2 + bn - 2 = 0$ oe or or $5(n+1)^3 + a(n+1)^2 + b(n+1) - 2 = 0$ oe
6(a)(i)	$1 + 21x + 189x^2 + 945x^3$	**B2**	**B1** for three out of the four terms correct or for a correct answer seen then spoilt If 0 scored then **SC1** for $1, 21x, 189x^2, 945x^3$ seen but not summed
6(a)(ii)	$1 + 21(0.01) + 189(0.01)^2 + 945(0.01)^3$ or 1 + 0.21 + 0.0189 + 0.000945 oe leading to 1.229[845 = 1.23] cao	**B2**	**M1** for use of $x = 0.01$ oe in *their* expansion seen or implied by e.g. $1 + 21(0.01) + 189(0.01)^2 + 945(0.01)^3$ or 1 + 0.21 + 0.0189 + 0.000945 OR 1.229845 without working or from working that is not fully correct