

(v) V. accurate, rest g. form and degree order + will be less significant.

$$\begin{array}{r} 0.985958 \\ \hline - 0.000042 \\ = 0.985916 \\ = 0.985 - 0.000042 \\ = 1 - 0.014 - 0.000042 \\ = 1 - 14 \times 0.001 - 42 \times 0.001^2 \end{array}$$

$$0.000001$$

$$0.1^2 = 0.01$$

(vi) $g(x) = (1 + 0.002)^6 (1 - 0.002)^7$
 $= 1.002^6 \times 0.998^7$

$$= 1 - 7x + 21x^2 - 7x - 84x^2 + 21x^2$$

$$= 1 - 14x - 42x^2$$

(vii) $g(x) = (1 + 12x + 60x^2)(1 - 7x + 21x^2)$

1	17	21	35	35	21	7
1	6	15	20	15	6	1
1	5	10	10	5	1	
1	4	6	4	1		
1	3	3	1			
1	2	1				
1	1					
1						

$$1 - 7x + 21x^2 - 35x^3 + 35x^4 - 21x^5 + 7x^6 + x^7$$

(viii) $(1-x)^7$
 $1 + 12x + 60x^2 + 160x^3$

$${}^6C_0 (1)^6 (2x)^0 + {}^6C_1 (1)^5 (2x)^1 + {}^6C_2 (1)^4 (2x)^2 + {}^6C_3 (1)^3 (2x)^3$$

11. (i) $(1+2x)^6$

$6P_1$

$$\frac{6!}{5!1!4}$$