5(ii) $\deg q(x) = \deg r(x)$

$p(x) = 4x^2 + 1$

$g(x) = x^2$

$x^2) \overline{4x^2+1} \; (4$ → degree 0

$4x^2$

$=$

1 → degree 0

$q(x) = 4$ (degree 0)

$r(x) = 1$ (degree 0)

$\therefore \deg q(x) = \deg r(x)$

5(iii) Same as 5(ii)