**8** $A = 3^5 \times 5 \times 7^3$
$B = 2^3 \times 3 \times 7^4$

(a) (i) Find the Highest Common Factor (HCF) of $A$ and $B$.

.....

(ii) Find the Lowest Common Multiple (LCM) of $A$ and $B$.

.....

**(2)**

$A = 3^5 \times 5 \times 7^3$
$B = 2^3 \times 3 \times 7^4$
$C = 2^p \times 5^q \times 7^r$

Given that
the HCF of $B$ and $C$ is $2^3 \times 7$
the LCM of $A$ and $C$ is $2^4 \times 3^5 \times 5^2 \times 7^3$

(b) find the value of $p$, the value of $q$ and the value of $r$.

$p =$ .....

$q =$ .....

$r =$ .....

**(2)**

**(Total for Question 8 is 4 marks)**

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