



$$2 \text{ (iii)} \quad (-3)^4 \times \left(\frac{5}{3}\right)^4$$

$$= \cancel{3^4} \times \frac{5^4}{\cancel{3^4}}$$

$$= 5^4$$

$$(-a)^n = (a)^n$$

where  $n$  is even

$$2 \text{ (iv)} \quad (3^{-7} \div 3^{-10}) \times 3^{-5}$$

$$= 3^{-7 - (-10)} \times 3^{-5}$$

$$= 3^{-7+10} \times 3^{-5}$$

$$= 3^3 \times 3^{-5}$$

$$= 3^{3-5}$$

$$= 3^{-2}$$

$$= \left(\frac{1}{3}\right)^2$$

$$[x^m \div x^n = x^{m-n}]$$

$$2 \text{ (v)} \quad 2^{-3} \times (-7)^{-3}$$

$$= [2 \times (-7)]^{-3}$$

$$= (-14)^{-3}$$

$$= \left(-\frac{1}{14}\right)^3$$

$$[\because x^m \times y^m = (xy)^m]$$