GERAK GEMPUR 1

# Indeks
## *Indices*

## BAHAGIAN A

**1.** $(-4)^4 =$

**A** $-256$ **B** $-16$
**C** $16$ **D** $256$

**2.** Diberi $p^4 \times p^5 = p^n$, cari nilai $n$.
*Given* $p^4 \times p^5 = p^n$, *find the value of* $n$.

**A** $-1$
**B** $1$
**C** $9$
**D** $20$

**3.** Permudahkan $2m^2 \times 2^3m^4$.
*Simplify* $2m^2 \times 2^3m^4$.

**A** $4m^6$ **B** $12m^4$
**C** $16m^4$ **D** $16m^6$

**4.** $h^2 \div h^7 =$

**A** $h^{-5}$ **B** $h^{-3}$
**C** $h^3$ **D** $h^5$

**5.** $(k^2 \times 2k^6)^2 =$

**A** $2k^8$
**B** $2k^{12}$
**C** $4k^{16}$
**D** $4k^{24}$

**6.** Diberi $(2q^2 \times 5q^{-5})^3 = mq^n$, dengan keadaan $m$ dan $n$ ialah pemalar. Cari nilai $m$ dan nilai $n$.
*Given* $(2q^2 \times 5q^{-5})^3 = mq^n$, *where* $m$ *and* $n$ *are constants. Find the values of* $m$ *and* $n$.

**A** $m = 10, n = -3$
**B** $m = 10, n = 3$
**C** $m = 1\,000, n = -9$
**D** $m = 1\,000, n = 9$

**7.** Antara berikut, yang manakah tidak sama dengan $a^4$?
*Which of the following is not equal to* $a^4$?

**A** $a^2 \times a^2$
**B** $(a^2)^2$
**C** $(a \times a^2)^2$
**D** $a^{-2} \times a^6$

**8.** $\left(\sqrt[3]{27^4}\right)^{\frac{1}{2}} =$

**A** $3$ **B** $9$
**C** $27$ **D** $81$

**9.** $\dfrac{2^2m^3n^{\frac{1}{2}}}{\sqrt[3]{-64}m^2n} =$

**A** $-\dfrac{m}{n^{-\frac{1}{2}}}$ **B** $-\dfrac{m}{n^{\frac{1}{2}}}$

**C** $-\dfrac{mn^{\frac{1}{2}}}{4}$ **D** $-\dfrac{mn^{-\frac{1}{2}}}{4}$

**10.** Diberi $\dfrac{\left(h^4k^6\right)^{\frac{1}{2}}}{h^{-5}} = h^nk^3$. Antara berikut, yang manakah memenuhi persamaan yang diberikan?

*Given* $\dfrac{\left(h^4k^6\right)^{\frac{1}{2}}}{h^{-5}} = h^nk^3$. *Which of the following satisfies the given equation*?

**A** $n = -7$
**B** $n = -1$
**C** $n = 7$
**D** $n = 9$

**11.** Diberi $\left(\sqrt[4]{x}\right)^3 \div x^{\frac{5}{2}y} = 1$, dengan keadaan $x \neq 0$. Cari nilai $y$.

*Given* $\left(\sqrt[4]{x}\right)^3 \div x^{\frac{5}{2}y} = 1$, *where* $x \neq 0$. *Find the value of* $y$.

**A** $-\dfrac{10}{3}$ **B** $-\dfrac{3}{10}$

**C** $\dfrac{3}{10}$ **D** $\dfrac{10}{3}$