

**TOPIK : INDEKS**

1. Simplify  $\left(\frac{a^3}{b}\right)^2 \times \frac{b}{c^2} \times \frac{c^3}{a^2} =$

Permudahkan  $\left(\frac{a^3}{b}\right)^2 \times \frac{b}{c^2} \times \frac{c^3}{a^2} =$

A  $\frac{a^4c}{b}$

C  $a^4c$

B  $\frac{a^3c}{b}$

D  $a^3c$

2. Given that  $\frac{9}{t^3} = 9^{-\frac{1}{2}}$ , find the value of t.

Diberi bahawa  $\frac{9}{t^3} = 9^{-\frac{1}{2}}$ , cari nilai t.

A t = 2

C t = 4

B t = 3

D t = 5

3. Simplify  $(4m^{-2}n)^3 \times \frac{1}{2}m^2n^{-1}$

Permudahkan  $(4m^{-2}n)^3 \times \frac{1}{2}m^2n^{-1}$

A  $32m^{-4}n^2$

C  $m^{-4}n^2$

B  $32m^{-8}n^4$

D  $m^{-8}n^4$

4. 
$$\frac{(3^2 \times 4^{-1})^{\frac{1}{2}}}{\sqrt{(9 \times 2^{-4})}}$$

- A 1  
B 2

- C 18  
D 72

5. If  $4^{-\frac{3}{2}} = \left(\frac{1}{2}\right)^n$ ,  $n$  is

Jika  $4^{-\frac{3}{2}} = \left(\frac{1}{2}\right)^n$ ,  $n$  ialah

- A 1  
B 3

- C 5  
D 7

6. 
$$\frac{(25x^{-2}y^3)^{\frac{1}{2}}}{x^3y^{-\frac{1}{2}}} =$$

A  $5x^3y^2$

C  $5\left(\frac{y}{x}\right)^2$

B  $5\frac{y^{\frac{3}{2}}}{x^5}$

D  $5\frac{y^2}{x^4}$

7. Given  $9^{\frac{1}{2}} \times 3^m = 27^m$ , find the value of  $m$ .

*Diberi  $9^{\frac{1}{2}} \times 3^m = 27^m$ , cari nilai  $m$ .*

- |   |                |   |   |
|---|----------------|---|---|
| A | $-\frac{1}{2}$ | C | 1 |
| B | $\frac{1}{2}$  | D | 3 |

8. Given that  $7(2^2) + 2^2 = \frac{4^{\frac{5}{2}}}{4^x}$ , find the value of  $x$ .

*Diberi  $7(2^2) + 2^2 = \frac{4^{\frac{5}{2}}}{4^x}$ , cari nilai  $x$ .*

- |   |   |   |   |
|---|---|---|---|
| A | 4 | C | 1 |
| B | 2 | D | 0 |

9. Simplify:

*Permudahkan:*

$$\frac{(3pq^4)^2}{3p^3q^8} =$$

- |   |                |   |                 |
|---|----------------|---|-----------------|
| A | $p^{-2}q^{-4}$ | C | $3p^{-2}q^{-4}$ |
| B | $p^{-1}$       | D | $3p^{-1}$       |

10. Given that  $125^{2k} = 5^{k+2}$ , find the value of  $k$ .

*Diberi bahawa  $125^{2k} = 5^{k+2}$ , cari nilai  $k$ .*

- |   |                |   |               |
|---|----------------|---|---------------|
| A | $-\frac{2}{5}$ | C | $\frac{2}{5}$ |
| B | $\frac{2}{7}$  | D | $\frac{1}{2}$ |

**TOPIK : INDEKS**

No	Jawapan
1	A
2	B
3	A
4	B
5	B
6	D
7	B
8	D
9	D
10	C