# SOAL MATEMATIKA SMP TAHAP III, AKAR DAN PANGKAT

# OPEN BOOK 90 Menit

H.O.W.K.E

August 4, 2017

#### Kerjakan Dengan Sifat Pangkat!

### Pangkat Level I

1. 
$$\frac{3^2 \cdot 4^{-2} \cdot 5}{2^{-4} \cdot 3^3 \cdot 25}$$

2. 
$$3^{-1} - 3^{-3}$$

3. 
$$(\frac{1}{13})^0(\frac{2}{3})^6(\frac{4}{9})^{-3}$$

4. 
$$(\frac{2}{3})^3$$

5. 
$$\frac{3}{3^{-2}}$$

### Pangkat Level II

1. 
$$\frac{x^2b^2c^2}{xbc^{-1}}$$

$$2. \ \frac{25u^{12}p^{24}q}{125up^{15}q^{16}}$$

3. 
$$(\sqrt{a^2})^2 \cdot \frac{1}{a^{-1}}$$

4. 
$$\sqrt{-a^2-(-a)^2+-a^2}$$

5. 
$$\frac{a^{-6}}{a^{-7}}$$

#### Pangkat Level III

1. 
$$\left(\frac{a^4b^{12}c^4}{a^{-10}b^{-5}c^{-4}}\right)^{-\frac{1}{2}}$$

$$2. \left( \frac{x^{-14} \sqrt[12]{x^4} x^8}{x^{-8} x^{-1/5} x^{-1/4}} \right)^{-\frac{1}{2}}$$

3. 
$$\left(\sqrt{a}\cdot\sqrt{a^4}\right)^{-2}$$

4. 
$$((a^2)^{16})^{17}$$

5. 
$$p^{1/2}p^0p^{1/4}$$

## Pangkat Level IV

1. 
$$\left(625z^{\frac{2}{8}}f^{\frac{1}{4}}\right)^{\frac{1}{2}}$$

2. 
$$(\sqrt[14]{x^7})^7$$

3. 
$$\sqrt{p}^{\sqrt{2}} \cdot \sqrt{p}^{3\sqrt{2}}$$

$$4. \sqrt{\sqrt{\sqrt{\sqrt{\frac{1}{2}}}}}$$

$$5. \ \frac{z^{\pi} \cdot z^{2\pi}}{z^{3\pi}}$$