Codeyoung

Checkpoint Assessment _ Exponents _Set I

(write the options in small letters)

1. Find x $(2/9)^4 \times (2/9)^{-7} = (2/9)^{2x-1}$.

a) -2
b) -7
c) 1
d) -1

2. Find the value of $(3^{-1} \times 4^{-1}) \div 2^{-2}$.

a) $1/6$
b) $1/3$
c) 3
d) $1/12$

3. Find the value of $(1/4)^{-2} + (1/5)^{-1} + (1/3)^{-1}$.

a) 24
b) $1/23$
c) $1/24$
d) None of these

4. Evaluate $(-4)^{-3}$.

a) $1/64$
b) 64
c) $-1/64$
d) None of these

5. Evaluate $(-2/5)^{-5}$.

a) $32/3125$
b) $-32/3125$
c) 3125
d) $-3125/32$

6. The value of $(7^{-1}-6^{-1})^{-1} - (5^{-1} - 3^{-1})^{-1}$ is _____.

a) $63\frac{1}{2}$ b) $23\frac{1}{2}$
c) $42\frac{1}{3}$ d) None of these

7. For a non-zero integer n, $\{(n^3)^{-4}\}^5$ is equal to _____.

a) n^{-20} b) n^{-60}
c) n^{-7} d) n^{60}

8. Evaluate $\{(-\frac{1}{4})^3\}^{-2}$, we get _____.

a) $\frac{1}{4096}$ b) 4024
c) 4096 d) $\frac{1}{4024}$

9. Evaluate $\{(\frac{5}{4})^{-1} - (\frac{5}{3})^{-2}\}^{-1}$, then get _____.

a) $\frac{11}{25}$ b) 25
c) $3\frac{2}{11}$ d) $2\frac{3}{11}$

10. For any two non-zero rational numbers R and S, $R^5 \div S^5$ is equal to _____.

a) $(R \div S)^0$ b) $(R \div S)^{10}$
c) $(R \div S)^5$ d) None of these

11. By what number should $(-8)^{-1}$ be multiplied, so that the product become $(18)^{-1}$?

a) $\frac{1}{9}$ b) $\frac{-4}{9}$
c) $\frac{-2}{9}$ d) $\frac{4}{9}$

12. Evaluate $(9/5)^{-2} \times (5/9)^{-3} \times (5/9)^{0}$, then get _____.

a) $9/5$ b) 9
c) $5/9$ d) 5

13. Convert 47.36 into standard form.

a) 4.736×10^{2} b) 4.736×10
c) 0.4736000 d) 47360

14. Convert 3.2356×10^{7} to usual form.

a) 32356000 b) 3.2356000
c) 32.3560000 d) 323560000000

15. Find the value of 'x' for $\{(-2/5)^{2}\}^{x} \times (-5/2)^{-1} = -8/125$.

a) -2 b) -5
c) 2 d) $4/25$

16. Simplify

$$\left(\frac{z^{a}}{z^{b}}\right)^{\frac{1}{ab}} \times \left(\frac{z^{b}}{z^{c}}\right)^{\frac{1}{bc}} \times \left(\frac{z^{c}}{z^{a}}\right)^{\frac{1}{ca}}$$

a) -1 b) $1/2$
c) 2 d) 1

17. Find the multiplicative inverse of $(7^{0} + 4^{0})(4^{0} - 3^{0})$.

a) 1 b) 0
c) Does not exist d) -1

18. Evaluate $p^{m}/(p^{m}+p^{n}) + 1/(p^{m-n+1})$, we get _____.

a) p/q b) 1
c) -2 d) -1

19. Find the value of m ,if $(3^{-m} \times 9^{2m+1} \times 27^{2m})/9^{3m} = 1/81$.

a) -3 b) 9
c) -2 d) $-2/3$

20. If $(25/16)^{-4} \times (4/5)^3 = (m/n)^{-2}$.

a) $16/25$ b) $64/125$

c) $4/5$ d) $25/16$