

12:58 PM

March 2026

Sri Mahalingeswara ITI

Question Paper

Duration: 30 Mins

Total Marks: 33

ID: ITISKILL8015CC

Student Name: \_\_\_\_\_ Roll No: \_\_\_\_\_

1. What is the value of x if  $13+x=20$ ?

- A) 7  
B) 9  
C) 13  
D) 8

2. What is the value of  $(6^3) / ((-3)^3)$  ?

- A) 8  
B) (-27)  
C) (-8)  
D) 27

3. What is the value of  $a^2 \times a^3 \times a^4$ ?

- A)  $a^8$   
B)  $a^{10}$   
C)  $a^9$   
D)  $a^7$

4. What are the three consecutive numbers if their sum is 42?

- A) 14,15,16  
B) 13,14,15  
C) 11,12,13  
D) 12,13,14

5. What is the value of 'X' if  $x - y = 6$  and  $x + y = 8$ ?

- A) 6  
B) 5  
C) 14  
D) 7

6. What is the value of  $5x^4 / 5x^3$  ?

- A) x  
B)  $5x$   
C)  $5x^4 / 5x^3$   
D)  $5x^2$

7. What is the expanded form of  $(a+b)^2$ ?

- A)  $(-a^2 - 2ab + b^2)$   
B)  $a^2 + 2ab + b^2$   
C)  $a^2 + 2ab - b^2$   
D)  $a^2 - 2ab + b^2$

8. What is the value of adding  $(5x+2y)$ ,  $(4x - 7z)$  and  $(15z - 3y)$ ?

- A)  $9x - y + 8z$   
B)  $9x + y - 8z$   
C)  $x - 9y + 8z$   
D)  $x + 9y + 8z$

9. What is the value of

 $x^3 + 3y^2x^2$  if  $x=3$ ,  $y=2$ ?

- A) 63  
B) 54  
C) 81  
D) 135

10. What is the value of  $12x^3y^2 / 4x^2y$ ?

- A)  $(-3xy)$   
B)  $16xy$   
C)  $3xy$   
D)  $8xy$

11. What is the value of any number raised to the power of 0?

- A) (-1)  
B) 1  
C) 0  
D) Alpha (?)

12. What is the value of  $a^5 \times a^7$ ?

- A)  $a^{35}$   
B)  $a^{12}$   
C)  $a^2$   
D)  $a^{22}$

13. What is the expansion of  $(a+b+c)^2$ ?

- A)  $a^2 + b^2 + c^2 + 2ab - 2bc + 2ca$   
B)  $a^2 + b^2 + c^2 - 2ab + 2bc + 2ca$   
C)  $a^2 + b^2 + c^2 + 2(ab + bc + ca)$   
D)  $a^2 - b^2 - c^2 + 2ab + 2bc + 2ca$

14. Which is equal to  $(a^m)^n$ ?

- A)  $a^{mn}$   
B)  $a^{m+n}$   
C)  $a^{m/n}$   
D)  $a^{m-n}$

15. What is the formula for  $(a-b)^2$ ?

- A)  $a^2 + 2ab + b^2$   
B)  $(-a^2 - 2ab - b^2)$   
C)  $a^2 - 2ab + b^2$   
D)  $a^2 - 2ab - b^2$

16. What is the subtracted value of  $3x - 4x^2 + 2y^2$  from  $4y^2 - 2x + 8x^2$ ?

- A)  $2y^2 + 5x - 12x^2$       B)  $2y^2 - 5x - 12x^2$   
 C)  $(-2y^2 - 5x + 12x^2)$       D)  $2y^2 - 5x + 12x^2$

- C) 5      D) 4

17. Which is the formula for  $a^m / a^n$ ?

- A)  $a^{m-n}$       B)  $a^{mxn}$   
 C)  $(a^m)^n$       D)  $a^{m+n}$

25. What is the value of x, if  $x^*(120) = 960$ ?

- A) 8      B) 7  
 C) 6      D) 10

18. What is the value of x if  $(x + 2) / 2 = 19$ ?

- A) 35      B) 36  
 C) 38      D) 33

26. What is the value of ab if  $(a+b)^2 = 36$  and  $(a-b)^2 = 24$ ?

- A) 4      B) 3  
 C) 6      D) 2

19. Which is expanded form of  $a^3 - b^3$ ?

- A)  $(a+b)(a^2 - b^2 - ab)$       B)  $(a-b)(a^2 - b^2 + ab)$   
 C)  $(a-b)(a^2 - b^2 - ab)$       D)  $(a-b)(a^2 + b^2 + ab)$

27. What is the value of  $14x + 3y + 25x + 2y$ ?

- A)  $39x + 5y$       B)  $44xy$   
 C)  $16x + 28y$       D)  $17x + 27y$

28. What is the value of  $a^2 + b^2$  if  $a+b=9$  and  $ab = 20$ ?

- A) 41      B) 121  
 C) (-41)      D) (-121)

20. What is the value of  $1 / a^{-5}$ ?

- A)  $a^{-5}$       B)  $a^5$   
 C) 5a      D) (-5a)

29. Which is equal to  $(a+b)^2 - (a-b)^2$ ?

- A) 5ab      B) 3ab  
 C) 4ab      D) 2ab

21. What is the simplified value of  $(3x + 15) / (5x + 25)$ ?

- A)  $(5/3)$       B)  $(-5/3)$   
 C)  $(3/5)$       D)  $(-3/5)$

30. What is the value of  $625^0$ ?

- A) 1      B) 25  
 C) 0      D) 525

22. Which is the expansion of  $a^3 + b^3$ ?

- A)  $a^3 - b^3 + 3ab(a-b)$       B)  $(a-b)(a^2 + b^2 - ab)$   
 C)  $(a+b)(a^2 + b^2 - ab)$       D)  $a^3 + b^3 + 3ab(a+b)$

31. What is the multiplication value of  $5a^2b \times 8a^5b^3$ ?

- A)  $40a^7b^4$       B)  $40a^3b^2$   
 C)  $40a^2b^3$       D)  $40a^4b^7$

23. What is the value of  $x^2 - y^2$  if  $(x+y) = 9$ ,  $(x - y) = 4$ ?

- A) 36      B) 65  
 C) 46      D) 13

32. What is the value of x, if  $3(2x - 4) = -4x + 28$ ?

- A) 4      B) 6  
 C) 8      D) 12

24. What is the value of x if  $11x+4=37$ ?

- A) 2      B) 3

33. What is the formula for  $a^m \times a^n$ ?

- A)  $n \cdot a^m$       B)  $a^{m-n}$   
 C)  $a^{m+n}$       D)  $a^{mn}$