

**SIMPLIFICATION EXAM 102**

1. If  $(11)^3$  is subtracted from the square of a number, the answer so obtained is 7930. What is the number?

- (a) 36
- (b) 28
- (c) 21
- (d) 48
- (e) None of these

2. If  $(78)^2$  is subtracted from the square of the number, the answer so obtained is 6460. What is the number?

- (a) 109
- (b) 111
- (c) 113
- (d) 115
- (e) None of these

3. 
$$\frac{18 \times 14 + 46}{16 \times 10 - 23} = ?$$

- (a)  $1\frac{1}{2}$
- (b)  $2\frac{24}{137}$
- (c)  $4\frac{37}{138}$
- (d)  $3\frac{32}{173}$
- (e) None of these

4. Which number should replace both question marks in the following equation?

$$\frac{?}{388} = \frac{97}{?}$$

- (a) 222
- (b) 196
- (c) 206
- (d) 178
- (e) None of these

5.  $5760 \div 45 \times 15 = ?$

- (a) 1890
- (b) 1828
- (c) 1820
- (d) 1928
- (e) None of these

6.  $22^2 + \sqrt{?} = 529$

- (a) 45
- (b) 2045
- (c) 2025

- (d) 48
- (e) None of these

7. 
$$\frac{17 \times 4 + 4^2 \times 2}{90 \div 5 \times 12} = ?$$

- (a)  $\frac{25}{54}$
- (b)  $\frac{22}{57}$
- (c)  $\frac{11}{27}$
- (d)  $\frac{13}{27}$
- (e) None of these

8.  $7^{8.9} \div (343)^{1.7} \times (49)^{4.8} = 7^?$

- (a) 13.4
- (b) 12.8
- (c) 11.4
- (d) 9.6
- (e) None of these

9. 
$$\sqrt[3]{512} \div \sqrt[4]{16} + \sqrt{576} = ?$$

- (a) 24
- (b) 31
- (c) 22
- (d) 18
- (e) None of these

10.  $199 + 5^3 \div 4 \times 4^2 = ?$

- (a) 969
- (b) 655
- (c) 966
- (d) 799
- (e) None of these

11. If  $(58)^2$  is added to the square of a number, the answer so obtained is 5668. What is the number?

- (a) 56
- (b) 33
- (c) 47
- (d) 51
- (e) None of these

12. Which number should replace both the question marks (?) in the following equation?

$$\frac{?}{188} = \frac{47}{?}$$

- (a) 88
- (b) 124
- (c) 66

- (d) 94  
(e) None of these

13.  $\frac{4}{9}$  of  $\frac{3}{8}$  of  $\frac{2}{7}$  of 294 = ?

- (a) 24  
(b) 14  
(c) 16  
(d) 22  
(e) None of these

14. 16% of 250 + 115% of 480 = ?

- (a) 522  
(b) 588  
(c) 582  
(d) 498  
(e) None of these

15.  $16.45 \times 2.8 + 4.5 \times 1.6 = ?$

- (a) 56.23  
(b) 56.32  
(c) 53.26  
(d) 53.66  
(e) None of these

16. 45% of 660 + 28% of 450 = ?

- (a) 413  
(b) 428  
(c) 423  
(d) 418  
(e) None of these

17.  $22^2 + \sqrt{?} = 516$

- (a) 1028  
(b) 1024  
(c) 1124  
(d) 1128  
(e) None of these

18.  $420 \div 28 \times 288 \div 32 = ?$

- (a) 235  
(b) 236  
(c) 138  
(d) 132  
(e) None of these

19.  $5616 \div 18 \div 8 = ?$

- (a) 36  
(b) 76  
(c) 49  
(d) 39

- (e) None of these

20.  $2.8 + 28.8 + 2.88 + 0.2 + 0.28 = ?$

- (a) 44.96  
(b) 33.96  
(c) 43.96  
(d) 34.96  
(e) None of these

21.  $93 + 26 \times 3 - 51 = ?$

- (a) 201  
(b) 102  
(c) 120  
(d) 210  
(e) None of these

22.  $(47)^2 - (15)^2 = ?$

- (a) 1894  
(b) 1849  
(c) 1948  
(d) 1984  
(e) None of these

23.  $\frac{34 \times 4 - 12 \times 8}{6^2 + \sqrt{196} + (11)^2} = ?$

- (a)  $\frac{40}{121}$   
(b)  $\frac{36}{171}$   
(c)  $\frac{14}{171}$   
(d)  $\frac{22}{171}$   
(e) None of these

24.  $\sqrt{?} + 15^2 = 235$

- (a) 10  
(b) 121  
(c) 144  
(d) 100  
(e) None of these

25. 2.03% of 1400 + 4.2% of 450 = ?

- (a) 18.09  
(b) 10.33  
(c) 24.42  
(d) 46.51  
(e) None of these