(Olympiad Excellence Question)

QUESTIONS

1. In the number 43256 the digit 3 stands for

(a) 3 Hundreds (b) 3 ten-thousands (c) Thousands (d) 3 tens

2. The successor of a given number is obtained by adding _____ to number.

(a) 1 (b) 2 (c) 3 (d) 4

3. Largest 8-digit number is _____

(a) 48000000 (b) 99999999 (c) 100000 (d) 2400046

4. Standard form of 8000000 + 9000 +400000 + 800 + 6

(a) 8409806 (b) 467842 (c) 846789 (d) 478424

5. How many thousands make a million?

(a) 100 (b) 10 (c) 1000 (d) 10000

6. What should come in place of question mark (?)?

10 millions [?] 1 crore.

(a) $<$ (b) $>$ (c) $\leq$ (d) $=$

7. $18+(82+8)=(18+82)+8$ is an example of

(a) Closure property (b) Commutative property

(c) Property of zero (d) Associative property

8. In a sum, the divisor is 173, the quotient 2,544 and the remainder is 60. What is the dividend?

(a) 12924 (b) 440172 (c) 152813 (d) 172544

9. Which of the following will not represent zero?

(a) $1\div 0$ (b) 0×0 (c) $\frac{0}{2}$ (d) $\frac{10-10}{2}$

10. Which whole number x does not satisfy the relation $x\div x=1$

(a) 1 (b) 5 (c) 0 (d) 100

11. How many three digit numbers are there in all?

(a) 900 (b) 999 (c) 499 (d) 566

12. Which of the following number is divisible by 11?

(a) 81723512 (b) 34715621 (c) 80701082 (d) 935612501

13. The difference between the successor and predecessor of 10000 is

(a) 2 (b) 1 (c) 0 (d) -1

14. The smallest even Number of 5-digit is _____

(a) 10000 (b) 24000 (c) 64000 (d) 34000

15. What is the smallest 4- digit number with unique digits?

(a) 1023 (b) 1024 (c) 1036 (d) 4624

16. The sets of whole Number and Natural Number are denoted by_____

(a) W, N (b) R, S (c) R, K, S (d) Q, Q

17. The population of a village is 1500. If 489 are men and 472 are women, find the number of children.

(a) 549 (b) 439 (c) 559 (d) 539

18. The value of $-(3-(2-3)+5-7)$ is

(a) –2 (b) –3 (c) –4 (d) +4

19. How many thousands make a lakh?

(a) 100 thousands (b) 10 thousands (c) 1 thousand (d) Zero

20. Find the difference of place values of the two 9's in 96720953.

(a) 89999100 (b) 84999100 (c) 98888100 (d) 9460070

21. Find the difference between the greatest and the least numbers that can be written using the digits 4, 9, 8, 7, 5 each used only once.

(a) 52965 (b) 34246 (c) 52956 (d) 72484

22. The unit digit of $1\times6\times66\times666\times555\times999$ is

(a) 1 (b) 0 (c) 4 (d) 5

23. Simplify: $50-42\div3$ of $7-(20+5)\div5\times2$

(a) 38 (b) 42 (c) 36 (d) 72

24. The value of $48+24\div2$ of $4\times5-4$ is

(a) 48.5 (b) 716 (c) 59 (d) 159

25. Find the sum: $(2+4+6+8+10+12+14+16+18+20)+\ (3+6+9+12+15+18+24+27+30)$

(a) 275 (b) 375 (c) 265 (d) 367

26. Hundred Crore=?

(a) One Billion (b) Two Crore (c) Ten Thousand (d) Hundred

27. 1827, when rounded off to the nearest hundred is

(a) 1900 (b) 1820 (c) 1850 (d) 1800

28. Find the estimated quotient $2835\div125$ by rounding off the numerator and denominator to the nearest hundred.

(a) 28 (b) 26 (c) 25 (d) 82

29. The number of 3-digit numbers divisible by 3 with 3 in ten's place is

(a) 28 (b) 30 (c) 32 (d) None of these

30. Consider the following statements I and II and choose which is / are correct

I. The sum of two distinct whole numbers is always a natural number.

II. The product of two distinct whole numbers is always a natural Number.

(a) Only I (b) Only II (c) Both I & II (d) neither I nor II

ANSWER - KEY				
1. C	**2.** A	**3.** B	**4.** A	**5.** C
6. D	**7.** D	**8.** B	**9.** A	**10.** C
11. A	**12.** C	**13.** A	**14.** A	**15.** A
16. A	**17.** D	**18.** A	**19.** A	**20.** A
21. A	**22.** B	**23.** A	**24.** C	**25.** A
26. A	**27.** D	**28.** A	**29.** B	**30.** A

Answers With Solutions

1. (c) 3 thousands

2. (b) 1

3. (c) 99999999

4. (a) 8409806

5. (c) Not Available

6. (d) Not Available

7. (d) Associative property

8. (b) Dividend = Divisor × Quotient + remainder $= 173 \times 2544 + 60 = 440112 + 60 = 440172$

9. (a) $\frac{1}{0}$ not defined

10. (c) $\frac{0}{0} \neq 1$ $\therefore$ 0 does not satisfy this relation

11. (a) (Largest - Smallest) $+1$

$(999 - 100) + 1 = 899 + 1 = 900$

12. (c) Not Available

13. (a) 10000

Successor $= 10000 + 1 = 10001$

Predecessor $= 10000 - 1 = 9999$

$10001 - 9999 = 2 = 00002$

14. (a) $10000 \rightarrow$ even number

15. (a) $1023 \rightarrow$ unique digits and the smallest among given

16. (a) W,N

17. (d) Let no. of men be, $x = 489$

No. of women be, $y = 472$

Let total no. be $'z' = 1500$

Let. No. of children $= k$

$x + y + k = z$

$k = z - (x + y)$

$1500 - (489 + 472)$

$1500 - 961$

$k = 539$

18. (a) –(2)

19. (a) 1 Lakh= 10 Ten Thousand (T. Th)

T. Th= 10 Thousand.

1 Lakh $= 10 \times 10$ Thousand

1 Lakh $= 100$ Thousand

20. (a) 96720953

$$\begin{array}{r} 90000000 \\ -\quad 900 \\ \hline 89999100 \end{array}$$

21. (a) 98754 - Largest

45789 - Smallest

$$\begin{array}{r} 98754 \\ -45789 \\ \hline 52965 \end{array}$$

22. (b) $1 \times 6 \times 66 \times 666 \times 555 \times 5 \times 999$

$1 \times 6 \times 6 \times 6 \times 5 \times 5 \times 9$

$6 \times 5 \times 9$

$a30 \times 9$

$9 \times 0 = 0$

23. (a) $50 - 42 \div 3$ of $7 - (20 + 5) \div 5 \times 2$

$50 - 42 \div 21 - (25) \div 5 \times 2$

$50 - 2 - 25 \div 5 \times 2$

$50 - 2 - 5 \times 2$

$50 - 2 - 10 = 38$

24. (c) Not Available

25. (a) $(2 + 4 + \ldots\ldots + 20) + (3 + 6 + 9 + \ldots\ldots 30)$

$2 \times 55 + 3 \times 55 = 275$

26. (a) 100 Crore

$1 \times$ Billion $=$ 10 Crore $\times 10 = 1000$ crores

27. (d) $1827 \rightarrow 1800$

28. $\frac{2835}{125} = \frac{2800}{100} = 28$

29. (b) 132, 135, 138, 231, 234, 237, 330, 333, 336, 339, 432, 435, 438, 531, 534, 539, 537, 630, 633, 636, 639, 732, 735, 738, 831, 834, 837, 930, 933, 936, 939

Total $= 30$

30. (a) only I

$I \rightarrow$ Yes

$II \rightarrow$ No $(0 \times 1) = 0$