WRONG NUMBER SERIES

EXERCISE

Directions : In the given series find the n	<i>umber</i> 8. 10, 100, 1100, 11000, 111000, 1210000
which is wrong.	(<i>a</i>) 1210000 (<i>b</i>) 11000
1. 5, 25, 120, 625, 3125, 15625	(c) 100 (d) 111000
(<i>a</i>) 15625 (<i>b</i>) 625	9. 24576, 6144, 1536, 386, 96, 24
(c) 120 (d) 5	(<i>a</i>) 386 (<i>b</i>) 6144
2. 4, 8, 11, 22, 18, 36, 24, 50	(c) 96 (d) 1536
(a) 8 (b) 22	10. 11, 13, 15, 17, 19, 23, 29, 31, 37
(c) 36 (d) 24	(<i>a</i>) 13 (<i>b</i>) 23
3. 2, 4, 12, 24, 72, 142, 432	(c) 15 (d) 31
(a) 432 (b) 12	11. 36, 43, 49, 54, 60, 61, 63, 64
(c) 142 (d) 72	(a) 60 (b) 63
4. 2, 3, 4, 4, 6, 8, 9, 12, 16	(c) 54 (d) 43
(a) 3 (b) 9	12. 3, 10, 41, 206, 1236, 8660
(c) 6 (d) 12	(a) 10 (b) 41
5. 97, 91, 86, 83, 79, 77, 76, 76	$(c) 206 \qquad (d) 1236$
(a) 86 (b) 76	13. 17, 25, 37, 50, 65, 82, 101
(a) b (b) (c) (c)	(a) 25 (b) 17
6 7 11 11 9 15 7 19 5 23 1	(c) 101 (d) 65
(a) 5 (b) 7	14. 12, 20, 38, 42, 56, 72 (1) 20
$(a) \ 5 \qquad (b) \ 7 \qquad (c) \ 1 \qquad (d) \ 9$	(a) 20 (b) 38 (c) 56 (b) 72
7 3 7 12 28 48 118 102 448	(C) 50 (a) 72
$(a) 12 \qquad (b) 118$	15. $5, 6, 11, 22, 42, 88, 1/6$
(a) 12 (b) 110 (c) 28 (d) 7	(a) 5 (b) 42
(t) = 20 $(u) = 1$	(C) 1/0 (d) 11

EXPLANATORY ANSWERS

- **1.** (*c*): The numbers in the series are multiplied by 5 to get the next number.
 - \therefore 125 should be in place of 120.
- 2. (d): Two numbers form a pair. The first number increases by 7 for the next pair and the second number is the double of first number.



 \therefore 25 should be in place of 24.

3. (*c*) : There are two alternate series and in each series, the numbers are multiplied by 6 to get the next number.

	×6		× 6		× 6	
Г 2	4	12	24	72	144	432
		× 6		× 6		
		~ 0		~ 0		

 \therefore 144 should be in place of 142.

4. (*b*): There are three alternate series and in each series, the numbers are multiplied by 2 to get the next number.

Series I: 2, 4, 8 *Series II*: 3, 6, 12 *Series III*: 4, 8, 16

 \therefore 8 should be in place of 9.

5. (d): The difference between the consecutive numbers in the series decreases by 1 at each step.

97 91 86 82 79 77 76 76

$$-6$$
 -5 -4 -3 -2 -1 -0
 \therefore 82 should be in place of 83.

6. (*c*): There are two alternate series :

Series I : 7, 11, 15, 19, 23 (addition of 4) *Series II* : 11, 9, 7, 5, 3 (subtraction of 2) ∴ 3 should be in place of 1.

7. (b): There are two alternate series and in each series, the numbers are multiplied by 4 to get the next number.



 \therefore 112 should be in place of 118.

8. (*d*): The numbers in this series are multiplied by 10 and 11 alternately is, *i.e.*, $\times 10, \times 11$.

10 	100	110	0 110	00 121	000	1210000
X	10 ×	11	× 10	$\times 11$	$\times 1$	0
: 121000 should be in place of 111000.						

9. (*a*): The numbers in this series are divided by 4 to get the next number.

24576 6144 1536 384 96 24

$$\div 4 \div 4 \div 4 \div 4 \div 4$$

 $\div 4 \Rightarrow 4 \Rightarrow 4 \div 4 \div 4$

 \therefore 384 should be in place of 386.

- **10.** (*c*) : The series comprises of prime numbers in increasing order. Only 15 is an exception.
- **11.** (*a*): The difference between two consecutive numbers is decreasing by 1 at each step. 36 43 49 54 58 61 63 64 +7 +6 +5 +4 +3 +2 +1 \therefore 58 should be in place of 60.
- **12.** (*d*) : The sequence followed in this series is : $3 \times 3 + 1 = 10, 10 \times 4 + 1 = 41$ $41 \times 5 + 1 = 206, 206 \times 6 + 1 = 1237$; and $1237 \times 7 + 1 = 8660$

- 13. (a): The numbers in the series are 1 plus the squares of numbers in natural order starting from 4. 17 26 37 50 65 82 101 \downarrow \downarrow \downarrow \downarrow \downarrow $4^2 + 1$ $5^2 + 1$ $6^2 + 1$ $7^2 + 1$ $8^2 + 1$ $9^2 + 1$ $10^2 + 1$: 26 should be in place of 25.
- 14. (b): The sequence followed in this series is : $3 \times 4 = 12, 4 \times 5 = 20, 5 \times 6 = 30,$ $6 \times 7 = 42, 7 \times 8 = 56, 8 \times 9 = 72$ \therefore 30 should be in place of 38.
- 15. (b): The numbers in the series are the sum of all the numbers preceding them.

