

Primary Number System

MCQ Test, Set 07

Time: 30 minutes

Maximum marks: 25

Name: _____ Class: _____ Date: _____

1. There are 25 questions. Each has exactly one correct answer: choose A, B, C or D.
2. Each correct answer carries 1 mark. There is no negative marking.
3. The key sheet and worked solutions are at the end of this test.

1. The three whole numbers just before 300 are
A. 301, 302, 303 **B.** 297, 298, 299 **C.** 298, 299, 300 **D.** 296, 297, 298
2. Which of the following is NOT an even number?
A. 312 **B.** 4005 **C.** 0 **D.** 86
3. The products obtained when a number is multiplied by 1, 2, 3, ... are called its
A. powers **B.** divisors **C.** factors **D.** multiples
4. Which of the following is NOT a factor of 98?
A. 7 **B.** 14 **C.** 2 **D.** 21
5. How many divisors does 30 have?
A. 7 **B.** 6 **C.** 8 **D.** 10
6. Another name for a variable is
A. power **B.** factor **C.** literal **D.** constant
7. $-12 \times p =$
A. $-12 + p$ **B.** $-12p$ **C.** $-12 - p$ **D.** $12p$
8. $10b + 13b =$
A. $130b$ **B.** $23b$ **C.** $23b^2$ **D.** 23
9. $21t - 12t =$
A. $33t$ **B.** 9 **C.** $9t^2$ **D.** $9t$
10. The exponential form of $b \times b \times b \times b \times b \times b$ is
A. b^6 **B.** b^5 **C.** 6^b **D.** $6b$
11. $69^2 =$
A. 3681 **B.** 1035 **C.** 138 **D.** 4761

12. The square of 26 is
A. 676 B. 52 C. 208 D. 436
-
13. $18^3 =$
A. 104976 B. 5832 C. 324 D. 54
-
14. Write $12 \times 12 \times 12 \times 12 \times 12$ in exponential form.
A. 12^5 B. 5^{12} C. 12×5 D. 12^4
-
15. The exponential form of 100000 with base 10 is
A. 5^{10} B. 10^5 C. 10^4 D. 10^6
-
16. Which of the following numbers between 8000 and 9000 is divisible by 2?
A. 8225 B. 8523 C. 8808 D. 8649
-
17. Which of the following numbers between 9000 and 10000 is divisible by 3?
A. 9653 B. 9943 C. 9141 D. 9256
-
18. Which of the following numbers between 10000 and 20000 is NOT divisible by 3?
A. 15315 B. 16666 C. 13182 D. 11670
-
19. Which of the following numbers between 80000 and 90000 is divisible by 4?
A. 81876 B. 83662 C. 86098 D. 86474
-
20. Which of the following numbers between 20000 and 30000 is divisible by 5?
A. 29107 B. 26551 C. 20606 D. 21510
-
21. Which of the following numbers between 40000 and 50000 is NOT divisible by 6?
A. 47304 B. 44982 C. 46776 D. 48134
-
22. Which of the following numbers between 50000 and 60000 is divisible by 6?
A. 54336 B. 54536 C. 58737 D. 56758
-
23. Which of the following numbers between 700 and 800 is divisible by 7?
A. 708 B. 747 C. 735 D. 713
-
24. To test 887 for divisibility by 7, twice the unit digit is subtracted from the remaining part. The result is
A. 81 B. 873 C. 74 D. 102
-
25. Among 2, 3, 4, 5 and 6, the number 70668 is divisible by
A. 2, 3, 4 and 6 only B. 2, 3 and 4 only
C. 2, 3 and 6 only D. 2, 4 and 6 only
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Key sheet

1. B	2. B	3. D	4. D	5. C
6. C	7. B	8. B	9. D	10. A
11. D	12. A	13. B	14. A	15. B
16. C	17. C	18. B	19. A	20. D
21. D	22. A	23. C	24. C	25. A

Solutions

1. The three whole numbers just before 300 are

Just before 300: 299, then 298, then 297.

Ans: (B) 297, 298, 299

2. Which of the following is NOT an even number?

$$4005 = 2 \times 2002 + 1$$

Remainder is 1, so 4005 is an odd number.

0, 86 and 312 leave remainder 0, so they are even.

Ans: (B) 4005

3. The products obtained when a number is multiplied by 1, 2, 3, ... are called its

Multiples of a number are the products of that number with 1, 2, 3, ...

Ans: (D) multiples

4. Which of the following is NOT a factor of 98?

$$98 = 2 \times 49, 98 = 7 \times 14, 98 = 14 \times 7$$

$98 = 21 \times 4 + 14$ leaves remainder 14, so 21 is not a factor of 98.

Ans: (D) 21

5. How many divisors does 30 have?

$$30 = 1 \times 30$$

$$= 2 \times 15$$

$$= 3 \times 10$$

$$= 5 \times 6$$

Divisors: 1, 2, 3, 5, 6, 10, 15, 30, so there are 8.

Ans: (C) 8

6. Another name for a variable is

A symbol which takes various numerical values is called a variable (or) literal.

Ans: (C) literal

7. $-12 \times p =$

A number times a letter: write the number (with its sign) before the letter.

$$-12 \times p = -12p$$

Ans: (B) $-12p$

8. $10b + 13b =$

$$10b + 13b = (10 + 13)b = 23b$$

Ans: (B) $23b$

9. $21t - 12t =$

$$21t - 12t = (21 - 12)t = 9t$$

Ans: (D) $9t$

10. The exponential form of $b \times b \times b \times b \times b \times b$ is

b is multiplied 6 times, so it is b^6 .

Ans: (A) b^6

11. $69^2 =$

$$69^2 = 69 \times 69$$

$$69 \times 9 = 621$$

$$69 \times 6 = 414, \text{ written one place to the left: } 4140$$

$$621 + 4140 = 4761$$

Ans: (D) 4761

12. The square of 26 is

$$26^2 = 26 \times 26$$

$$26 \times 6 = 156$$

$$26 \times 2 = 52, \text{ written one place to the left: } 520$$

$$156 + 520 = 676$$

Ans: (A) 676

13. $18^3 =$

$$18^3 = 18 \times 18 \times 18$$

$$18 \times 18 = 324, 324 \times 18 = 5832$$

$$= 5832$$

Ans: (B) 5832

14. Write $12 \times 12 \times 12 \times 12 \times 12$ in exponential form.

12 is multiplied by itself 5 times, so it is 12^5 .

Ans: (A) 12^5

15. The exponential form of 100000 with base 10 is

100000 is 1 followed by 5 zeros.

$$100000 = 10 \times 10 \times 10 \times 10 \times 10 = 10^5$$

Ans: (B) 10^5

16. Which of the following numbers between 8000 and 9000 is divisible by 2?

A number is divisible by 2 if the digit at its unit place is 0, 2, 4, 6 or 8.

The digit at the unit place of 8808 is 8, so 8808 is divisible by 2.

The other three are not divisible.

Ans: (C) 8808

17. Which of the following numbers between 9000 and 10000 is divisible by 3?

A number is divisible by 3 if the sum of all its digits is divisible by 3.

Sum of the digits of 9141: $9 + 1 + 4 + 1 = 15$

15 is divisible by 3 ($15 = 3 \times 5$), so 9141 is divisible by 3.

Each of the others fails the test.

Ans: (C) 9141

18. Which of the following numbers between 10000 and 20000 is NOT divisible by 3?

A number is divisible by 3 if the sum of all its digits is divisible by 3.

Sum of the digits of 16666: $1 + 6 + 6 + 6 + 6 = 25$

25 is not divisible by 3 ($25 = 3 \times 8 + 1$), so 16666 is not divisible by 3.

Each of the others passes the test.

Ans: (B) 16666

19. Which of the following numbers between 80000 and 90000 is divisible by 4?

A number is divisible by 4 if its last two digits together are divisible by 4.

Last two digits of 81876 together: 76; $76 = 4 \times 19$, so 81876 is divisible by 4.

Each of the others fails the test.

Ans: (A) 81876

20. Which of the following numbers between 20000 and 30000 is divisible by 5?

A number is divisible by 5 if the digit at its unit place is 0 or 5.

The digit at the unit place of 21510 is 0, so 21510 is divisible by 5.

The other three are not divisible.

Ans: (D) 21510

21. Which of the following numbers between 40000 and 50000 is NOT divisible by 6?

A number is divisible by 6 if it is divisible by both 2 and 3.

The digit at the unit place of 48134 is 4, so 48134 is divisible by 2.

Sum of the digits of 48134: $4 + 8 + 1 + 3 + 4 = 20$

20 is not divisible by 3 ($20 = 3 \times 6 + 2$), so 48134 is not divisible by 3.

$\therefore$ 48134 is not divisible by 6.

Each of the others passes the test.

Ans: (D) 48134

22. Which of the following numbers between 50000 and 60000 is divisible by 6?

A number is divisible by 6 if it is divisible by both 2 and 3.

The digit at the unit place of 54336 is 6, so 54336 is divisible by 2.

Sum of the digits of 54336: $5 + 4 + 3 + 3 + 6 = 21$

21 is divisible by 3 ($21 = 3 \times 7$), so 54336 is divisible by 3.

$\therefore$ 54336 is divisible by 6.

Each of the others fails the test.

Ans: (A) 54336

23. Which of the following numbers between 700 and 800 is divisible by 7?

A number is divisible by 7 if the remaining part minus twice the unit digit is a multiple of 7 (or 0).

735: $73 - 5(2) = 73 - 10 = 63$; $63 = 7 \times 9$, a multiple of 7, so 735 is divisible by 7.

Each of the others fails the test.

Ans: (C) 735

24. To test 887 for divisibility by 7, twice the unit digit is subtracted from the remaining part. The result is

Remaining part = 88, unit digit = 7

$88 - 7(2) = 88 - 14 = 74$

Ans: (C) 74

25. Among 2, 3, 4, 5 and 6, the number 70668 is divisible by

The digit at the unit place of 70668 is 8, so 70668 is divisible by 2.

Sum of the digits of 70668: $7 + 0 + 6 + 6 + 8 = 27$

27 is divisible by 3 ($27 = 3 \times 9$), so 70668 is divisible by 3.

Last two digits of 70668 together: 68; $68 = 4 \times 17$, so 70668 is divisible by 4.

The digit at the unit place of 70668 is 8, so 70668 is not divisible by 5.

Divisible by both 2 and 3 means divisible by 6.

So 70668 is divisible by 2, 3, 4 and 6.

Ans: (A) 2, 3, 4 and 6 only
