

CLASSIFICATION OF NUMBER

संख्याओं का वर्गीकरण

PRACTICE SHEET

WITH SOLUTIONS

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Classification of Number

(Practice Sheet With Solution)

1. Find out which of the following sets form co-prime numbers.

निम्नलिखित समुच्चयों में से कौन-सा सह अभाज्य संख्याएँ बनाता है।

NTPC CBT-02 18/01/2017 (Shift-01)

- (a) (12, 7) (b) (21, 42)
(c) (43, 129) (d) (3, 9)

2. Which of the following is an odd composite number?

निम्न में से कौन-सी एक विषम भाज्य संख्या है।

NTPC CBT-02 18/01/2017 (Shift-02)

- (a) 13 (b) 17
(c) 12 (d) 15

3. _____ is an irrational number.

_____ एक अपरिमेय संख्या है।

NTPC CBT-02 19/01/2017 (Shift-02)

- (a) $\sqrt{2 \times 3}$ (b) $\frac{11}{8}$
(c) $\frac{2}{3}$ (d) $\sqrt{9}$

4. All irrational number are numbers.

सभी अपरिमेय संख्याएँ _____ संख्याएँ होती हैं।

NTPC CBT-02 17/01/2017 (Shift-03)

- (a) Real (b) Integers
(c) Whole (d) Imaginary

5. All rational numbers are _____ numbers

सभी परिमेय संख्याएँ..... संख्याएँ हैं।

NTPC CBT-02 17/01/2017 (Shift-01)

- (a) Whole (b) Integer
(c) Real (d) Irrational

6. In a prime number.....

एक अभाज्य संख्या में

NTPC CBT-1 30/03/2016 (Shift-02)

- (a) There are more than two divisors.
(b) Divided by itself and 1.
(c) It has no divisor.
(d) Is not a positive integer

7. Which of the following pairs is not a pair of twin primes?

निम्नलिखित में से कौन-सा युग्म जुड़वा अभाज्यों का युग्म नहीं है?

ALP & Tec. 21/08/2018 (Shift-02)

- (a) 11, 13 (b) 71, 73
(c) 131, 133 (d) 191, 193

8. Which from the following is not a rational number ?

निम्नलिखित में से कौन एक परिमेय संख्या नहीं है?

RPF SI 05/01/2019 (Shift-01)

- (a) $\sqrt[3]{1728}$ (b) π
(c) 2.487627287 (d) 8.36712846781

9. If a and b are odd numbers, then which of the following will be an even number?

यदि a और b विषम संख्याएँ हैं, तो निम्नलिखित में से कौन-सी सम संख्या होगी?

Hajipur Group-D 06/05/2012 (Shift-01)

- (a) a + b (b) a + b + 1
(c) ab (d) ab + 2

10. If A is integer and B is natural number than B - A = ?

यदि A पूर्णांक है, B प्राकृत संख्या है, तो B - A = ?

- A. Whole number B. Null number
C. Natural number D. Even number

Group-D 21/02/2016

- (a) B (b) D
(c) A (d) C

11. Which among the following is not an irrational number?

निम्नलिखित में से कौन सी एक अपरिमेय संख्या नहीं है?

Group-D CBT 18/09/2018 (Shift-03)

- (a) π (b) $\sqrt{7652}$
(c) $\sqrt{5428}$ (d) $\sqrt{6084}$

12. Which of the following statements is true regarding the group of numbers 4, 121, 16 and 256?

संख्या 4, 121, 16 और 256 के समूह के संबंध में निम्नलिखित में से कौन सा कथन सत्य है?

ASM Bhopal (Non-Tech.) 11/10/1998

- (a) All of them are odd number
(b) All of them are prime numbers
(c) All of them are square numbers
(d) All of them are divisible by 7

13. All natural numbers and 0 are called the _____ numbers.

सभी प्राकृत संख्याएँ और 0 संख्याएँ कहलाती हैं।

Kolkata Ticket Collector (TC) 03/12/2006

- (a) Whole (b) Prime
(c) Integer (d) Rational

14. The number which is neither prime nor composite is:

वह संख्या जो न तो अभाज्य है और न ही भाज्य है:

Bhubaneswar ASM 30/08/2009

- (a) 0 (b) 1
(c) 3 (d) 2

15. Which of the following pairs are co-primes?

निम्नलिखित में से कौन से जोड़े सह-अभाज्य हैं?

Group D 20/09/2018 (Shift-02)

- (a) 348, 296 (b) 114, 213
(c) 59, 97 (d) 3025, 4920

16. The decimal expansion of rational number

$\frac{37}{2^2 \times 5}$ will terminate after.

परिमेय संख्या $\frac{37}{2^2 \times 5}$ का दशमलव प्रसार के बाद समाप्त हो जाएगा।

DMRC Customer Relations Assistant 22/07/2012

- (a) One decimal place
(b) Two decimal places
(c) Three decimal places
(d) Four decimal places

17. The sum of twice the largest two-digit prime number and three times the largest three-digit prime number will be equal to the sum.

दो अंकों की सबसे बड़ी अभाज्य संख्या का दोगुना और तीन अंकों की सबसे बड़ी अभाज्य संख्या का तीन गुना का योग योग के बराबर होगा।

NTPC CBT-1 22/08/2022 (Shift-02)

- (a) 3185 (b) 3029
(c) 2195 (d) 6523

18. Which of the following pairs is co-prime?

निम्नलिखित युग्मों में से कौन-सा सह-अभाज्य है?

UPSI 14/12/2017 (Shift-02)

- (a) (156, 126) (b) (23, 92)
(c) (24, 351) (d) (18, 35)

19. $3\sqrt{16}$ is _____

$3\sqrt{16}$ एक _____ है।

UPSI 12/12/2017 (Shift-01)

- (a) Irrational number
(b) Imaginary number
(c) Integer
(d) Prime number

20. Let P, Q and R be specific integers. R is a positive even integer while P and Q are positive odd integers. Which of the following expression cannot be true?

मान लें P, Q और R विशिष्ट पूर्णांक हैं। R एक धनात्मक सम पूर्णांक है जबकि P और Q धनात्मक विषम पूर्णांक हैं। निम्नलिखित व्यंजक में से कौन-सा सत्य नहीं हो सकता?

UPSI 12/12/2017 (Shift-01)

- (a) $Q(P - R)$ is odd (b) $(P - R)^2$ is even
(c) $Q^2(P - R)$ is odd (d) $R(P - Q)^2$ is even

ANSWER KEY

1.(a)	2.(d)	3.(a)	4.(a)	5.(c)	6.(b)	7.(c)	8.(b)	9.(a)	10.(a)
11.(d)	12.(c)	13.(a)	14.(b)	15.(c)	16.(b)	17.(a)	18.(d)	19.(c)	20.(b)

SOLUTIONS

1. (a)
Co-prime:- Pair whose HCF is 1
HCF of (12,7) = 1
= This is a co-prime number.
2. (d)
Odd composite numbers are odd numbers with more than 2 factors.
 $15 = 3 \times 5$
3. (a)
 $\sqrt{(2 \times 3)} = \sqrt{6}$ is an irrational number.
4. (a)
All irrational numbers are real numbers.
5. (b)
All rational numbers are real.
6. (b)
The prime number is divisible by 1 and itself.
7. (c)
Factors of 133 = 1, 7, 19
133 It is not a prime number.
8. (a)
Since the decimal expansion of π is turbulent and non-recurring. Therefore π is an irrational number.
9. (a)
The sum of any two odd numbers makes an even number.
 $(a + b) = \text{even number}$
10. (c)
Whole Number = Integer – Natural Number
2 is an integer as well as a Natural Number.
 $= 2 - 2 = 0$
 $(b - a)$ is a whole number.
11. (d)
An irrational number is a real number which cannot be expressed as a ratio of integers, all options except $\sqrt{6084}$ are irrational numbers.
12. (c)
4. is a square of 2
121 is a square of 11
16. is a square of 4
256 is a square of 16
13. (a)
Natural Number = 1, 2, 3, -----
Whole Number = 0, 1, 2, 3, -----
14. (b)
1 is neither prime nor composite
15. (c)
Co-prime numbers means pairs of numbers which have no common factors other than 1.
59, 97 is a co-prime pair.
16. (b)
$$= \frac{37}{2^2 \times 5} = \frac{37}{20} = 1.85$$

So, the decimal expansion of a rational number ends after two decimal places.
17. (a)
Largest 2 digit prime number = 97 and Largest 3 digit prime number = 997
Required sum
 $= (2 \times 97 + 3 \times 997) = (194 + 2991) = 3185$
18. (d)
Among the options, since 23 is a prime number, it is co-prime with all other numbers.
[A pair of numbers is said to be co-prime when their common factor is at most 1]
HCF (18 and 35) = 1
19. (c)
$$3\sqrt[3]{16} = 3 \times \sqrt[3]{4^2} = 3 \times (4^2)^{\frac{1}{3}} = 12$$

This is an integer.
20. (b)
Let P = 3, Q = 5, R = 2, the values of P, Q and R
Putting in option
(a) $Q(P - R) = 5(3 - 2) = 5$ odd
(b) $(P - R)^2 = (3 - 2)^2 = 1 \neq \text{even}$
Option b cannot be true.