

Class - VI
Subject: Mathematics
Mcq Worksheet

Section A – Multiple Choice Questions ($15 \times 1 = 15$ Marks)

1. Which of the following numbers is a palindrome?
A) 1234 B) 1441 C) 1451 D) 1341
2. If the greatest 4-digit number is formed using the digits 2, 5, 8 and 1 without repetition, the number is
A) 8521 B) 8512 C) 8251 D) 8125
3. Which is the smallest 5-digit number that can be formed using the digits 9, 0, 3, 6 and 1 without repetition?
A) 10369 B) 10396 C) 13069 D) 10639
4. Which number reaches 6174 after repeatedly arranging its digits in descending and ascending order and subtracting?
A) 3524 B) 1111 C) 2222 D) 5555
5. According to the Collatz Conjecture, if the number is even, the next number is obtained by
A) Adding 1 B) Multiplying by 3 and adding 1 C) Dividing by 2 D) Multiplying by 2
6. According to the Collatz Conjecture, if the number is odd, the next number is
A) $n + 1$ B) $3n + 1$ C) $n \div 2$ D) $2n$
7. Which of the following is NOT a palindrome number? A) 202 B) 454 C) 121 D) 234
8. Which of the following statements is correct?
A) Every palindrome number is even.
B) Every palindrome number reads the same forwards and backwards.
C) Every palindrome number is prime.
D) Every palindrome number has four digits.
9. A teacher records the favourite fruits of students using tally marks. This method is mainly used to
A) Multiply numbers
B) Count frequencies easily
C) Measure time
D) Compare fractions
10. Which graph is best suited to compare the number of students in different houses?
A) Line graph B) Bar graph C) Pie chart D) Circle
11. In a pictograph, one ★ represents 5 books. If there are 6 stars, how many books are represented?
A) 11 B) 25 C) 30 D) 35

12. Which of the following represents data in the form of pictures?

- A) Frequency table
- B) Tally chart
- C) Pictograph
- D) Number line

13. The total number of observations in a frequency table is found by

- A) Adding all the frequencies
- B) Multiplying the frequencies
- C) Finding the largest frequency
- D) Subtracting the frequencies

14. A bar graph is useful because it helps us

- A) Solve equations
- B) Compare different categories easily
- C) Draw circles
- D) Find perimeter

Section B – Assertion and Reasoning ($5 \times 1 = 5$ Marks)

Directions: Choose the correct option.

A. Both Assertion (A) and Reason (R) are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true, but R is false.

D. A is false, but R is true.

16. Assertion (A): 1331 is a palindrome number. Reason (R): A palindrome reads the same from left to right and right to left.

17. Assertion (A): In the Collatz Conjecture, an even number is divided by 2. Reason (R): This is one of the rules of the Collatz sequence.

18. Assertion (A): A pictograph always uses symbols to represent data. Reason (R): Each symbol represents a fixed number of items.

19. Assertion (A): The first digit of the smallest number formed using given digits cannot be 0. Reason (R): A number cannot begin with zero.

20. Assertion (A): A bar graph helps compare quantities quickly. Reason (R): The heights (or lengths) of the bars represent the values of different categories.