International Maths Wizard Olympiad (IMWO)

CLASS-8 SAMPLE QUESTION PAPER

The Actual Question Paper Contains 50 Questions. The duration of the Test Paper is 60 Minutes.

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1. The number $(10^n – 1)$ is divisible by 11 for _____.
   (A) $n \in N$
   (B) Odd values of n
   (C) Even values of n
   (D) n is the multiple of 11
   (E) None of these

2. The number which is exactly divisible by 99 is _____.
   (A) 3572404   (B) 135792
   (C) 913464   (D) 114345
   (E) None of these

3. The least value must be given to x so that the number 91876×2 is divisible by 8 is _____.
   (A) 1   (B) 2
   (C) 3   (D) 4
   (E) None of these

4. If $\begin{array}{r} 1\,A \\ \times\,A \\ \hline B\,6 \end{array}$, when A and B are single digit numbers, such that $B – A = 3$, then the values of A and B respectively are _____.
   (A) 4, 5   (B) 9, 6
   (C) 5, 4   (D) 6, 9
   (E) None of these

5. 21436587 is divisible by _____.
   (A) 2   (B) 5
   (C) 7   (D) 9
   (E) None of these

6. When a certain number is multiplied by 13, the product consists entirely of fives. The smallest such number is _____.
   (A) 41625   (B) 42515
   (C) 42735   (D) 42135
   (E) None of these

7. The largest natural number by which the product of three consecutive even natural numbers is always divisible, is _____.
   (A) 16   (B) 24
   (C) 48   (D) 96
   (E) None of these

8. A 3-digit number 'cba' is divisible by 9 if _____.
   (A) a + 2b + c is divisible by 9
   (B) 2a + b + c is divisible by 9
   (C) a + b + 2c is divisible by 9
   (D) a + b + c is divisible by 9
   (E) None of these

9. If in a number, difference between the sum of digits at its odd places and that of digits at the even places is given 0, then the number is divisible by _____.
   (A) 7   (B) 9
   (C) 5   (D) 11
   (E) None of these

10. A 5-digit number xy235 is divisible by 3 such that x + y < 5, where x and y are digits, then possible values of (x, y) are _____.
    (A) (1, 1) or (4, 0)
    (B) (1, 1) or (2, 0)
    (C) (1, 1) or (0, 2)
    (D) (2, 0) or (0, 2)
    (E) None of these

11. If a 3-digit number 'abc' is divisible by 11, then _____.
    (A) a + b + c is a multiple of 11
    (B) a + b – c is a multiple of 11
    (C) a – b + c is a multiple of 11
    (D) a – b – c is a multiple of 11
    (E) None of these

12. 'If a number is divisible by any number m, then it will also be divisible by each of the factor of m'. This statement is _____
    (A) True
    (B) False
    (C) Sometimes true and sometimes false
    (D) All of these
    (E) None of these

13. If 31z4 + 51z3 is divisible by 3, where z is digit less than 5, then the values of z are _____.
    (A) 0, 1   (B) 0, 3
    (C) 1, 3   (D) 1, 4
    (E) None of these