

CLASS - XI

Chapter – 9 (SEQUENCES AND SERIES)

MODULE – 1 of 3 (WORKSHEET)

Distance Learning Programme: An initiative by AEES, Mumbai

1. State the definition of Sequence, Progression and Series with example.
2. Write the 12th and 13th terms of the Fibonacci sequence.
3. A series is given as $\sum_{i=1}^9 (3i + 2)$. Find its 7th term.
4. Write *F* for finite and *I* for infinite sequences
 - a) 1, 4, 7, 10
 - b) Odd numbers less than 100
 - c) First 1000 prime numbers
 - d) Negative integers
5. Identify the following progressions as in A.P, G.P or H.P
 - a) First 10 even numbers in ascending order
 - b) 1, 4, 16, 64, 256
 - c) 1, 1/2, 1/4, 1/8, 1/16, 1/32
 - d) 0, 1/2, 1, 3/2, 2, 5/2, 3
 - e) 1, 1/2, 1/3, 1/4, 1/5, 1/6
6. Write the first three terms in sequences defined by $a_n = 7n - 2$. Also write the series
7. Write the 12th term of the sequence defined by $a_n = (1 + n)(3 - 2n)$.
8. Write the geometric progression in which quotient is 3 and first term is 5.
9. A series is given as $\sum_{k=1}^3 (5k)$. Can we find the value for the series? If YES, Write the value.
10. Find the sequence where
$$a_1 = 2 \text{ \& } a_n = a_{n-1} + 3, n > 1$$
