

Comprehensive Test Series-6

Arithmetic Progression

TIME: 1hr

MM: 36

General Instructions:

- All Questions are compulsory.
 - Marks are given alongwith the questions individually.
 - Use of calculator is not permitted.
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- Q.1 If the sum of the first 14 terms of an AP is 1050 and its first term is 10, find the 20th term.
- Q.2 How many terms of the AP: 24, 21, 18... must be taken so that their sum is 78?
- Q.3 Find the sum of first 24 terms of the list of numbers whose nth term is given by
$$a_n = 3 + 2n$$
- Q.4 A manufacturer of TV sets produced 600 sets in the third year and 700 sets in the seventh year. Assuming that the production increases uniformly by a fixed number every year, find:
- (i) The production in the 1st year
 - (ii) the production in the 10th year
 - (iii) The total production in first 7 year
- Q.5 Find the sum
 $-5 + (-8) + (-11) + \dots + (-230)$
- Q.6 The first term of an AP is 5, the last term is,45 and the sum is 400. Find number of terms and the common difference.
- Q.7 If the sum of first 7 terms of an AP is 49 and that of 17 terms is 289, find the sum of first n terms.
- Q.8 Find the sum of the first 40 positive integers divisible by 6.
- Q.9 Find the sum of the odd number between 0 and 50.
- Q.10 A sum of Rs 700 is to be used to give seven cash prizes to students of a school for their overall academic performance. If each prize is Rs 20 less than its preceding prize, find the value of each of the prizes.
- Q.11 Which term of the AP: 121, 117, and 113... is its first negative term?
- Q.12 The sum of the third and the seventh terms of an AP is 6 and their product is 8. Find the sum of first sixteen terms of the AP.