

## Comprehensive Test Series-5

### Arithmetic Progression

TIME: 1.5hr

MM: 45

#### 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 Amrita Rao started work in 1995 at an annual salary of Rs 5000 and received an increment of Rs 200 each year. In which year did his income reach Rs7000?
- Q.2 How many three-digit numbers are divisible by 7?
- Q.3 The sum of the 4<sup>th</sup> and 8<sup>th</sup> terms of an AP is 24 and the sum of the 6<sup>th</sup> and 10<sup>th</sup> terms is 44. Find the first three terms of the AP
- Q.4 For what value of n, are the nth terms of two APs: 63, 65, 67... and 3, 10 17... equal?
- Q.5 Find the 31<sup>st</sup> term of an AP whose 11<sup>th</sup> term is 38 and 16<sup>th</sup> term is 73.
- Q.6 Which term of an AP: 3, 15, 27, 39... will be 132 more than its 54<sup>th</sup> term?
- Q.7 If the 3<sup>rd</sup> and 9<sup>th</sup> terms of an AP are 4 and -8 respectively, which term of this AP is zero?
- Q.8 An AP consists of 50 terms of which 3<sup>rd</sup> term is 12 and the last term is 106. Find the 29<sup>th</sup> term.
- Q.9 Find the number of terms in each of the following AP:  
18,  $15\frac{1}{2}$ , 13... -47
- Q.10 How many two-digit numbers are divisible by 3?
- Q.11 In a flower bed, there are 23 rose plants in the first row, 21 in the second, 19 in the third, and so on. There are 5 rose plants in the last row. How many rows are there in the flower bed?
- Q.12 In the following AP, find the missing term in the box:  

	38				-22
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- Q.13 A sum of Rs 1000 is invested at 8% simple interest per year. Calculate the interest at the end of each year. Do these interests form an AP? If so, find the interest at the end of 30 years making use of this fact.
- Q.14 Find the 11<sup>th</sup> term from the last term (towards the first term) of the AP: 10, 7, and 4... -62.
- Q.15 Which term of the AP: 3, 8, 13, and 18... is 78?