



RK VISION ACADEMY

NEET | IIT – JEE | FOUNDATION

CBSE PRACTICE PAPER(2024)

(Mathematics)

Grade : X
marks

Chapter: AP SET 2
minutes

Marks: 40

Time: 90

SECTION A

(This section comprises of Multiple-choice questions (MCQ) of 1 mark each.)

- If the 2nd term of an AP is 13 and the 5th term is 25, what is its 7th term?
(A) 30 (B) 33 (C) 37 (D) 38
- Which term of the AP: 21, 42, 63, 84,... is 210?
(A) 9th (B) 10th (C) 11th (D) 12th
- If the common difference of an AP is 5, then what is $a_{18} - a_{13}$?
(A) 5 (B) 20 (C) 25 (D) 30
- What is the common difference of an AP in which $a_{18} - a_{14} = 32$?
(A) 8 (B) - 8 (C) - 4 (D) 4
- Two APs have the same common difference. The first term of one of these is -1 and that of the other is -8. Then the difference between their 4th terms is
(A) -1 (B) - 8 (C) 7 (D) -9
- If 7 times the 7th term of an AP is equal to 11 times its 11th term, then its 18th term will be
(A) 7 (B) 11 (C) 18 (D) 0
- The 4th term from the end of the AP: -11, -8, -5, ..., 49 is
(A) 37 (B) 40 (C) 43 (D) 58
- If the first term of an AP is -5 and the common difference is 2, then the sum of the first 6 terms is
(A) 0 (B) 5 (C) 6 (D) 15
- The sum of first 16 terms of the AP: 10, 6, 2,... is
(A) -320 (B) 320 (C) -352 (D) -400
- The sum of first five multiples of 3 is
(A) 45 (B) 55 (C) 65 (D) 75

SECTION B

(This section comprises of very short answer type-questions (VSA) of 2 marks each.)

- 11 If five times the fifth term of an AP is equal to 8 times its eight terms, show that its 13th term is zero.
- 12 Divya deposited Rs 1000 at compound interest at the rate of 10% per annum. The amounts at the end of first year, second year, third year, ..., form an AP. Justify your answer.
- 13 Is 0 a term of the AP: 31, 28, 25, ...? Justify your answer.

SECTION C

(This section comprises of short answer type questions (SA) of 3 marks each)

- 14 The sum of the first three terms of an AP is 33. If the product of the first and the third term exceeds the second term by 29, find the AP.
- 15 The sum of the 5th and the 7th terms of an AP is 52 and the 10th term is 46. Find the AP.
- 16 Determine k so that $k^2 + 4k + 8$, $2k^2 + 3k + 6$, $3k^2 + 4k + 4$ are three consecutive terms of an AP

SECTION D

(This section comprises of long answer-type questions (LA) of 5 marks each)

- 17 The sum of four consecutive numbers in an AP is 32 and the ratio of the product of the first and the last terms to the product of the two middle terms is 7 : 15. Find the numbers.
- 18 The eighth term of an AP is half its second term and the eleventh term exceeds one third of its fourth term by 1. Find the 15th term
- 19 Find the sum of the integers between 100 and 200 that are (i) divisible by 9 (ii) not divisible by 9