ERRORS ERASER

Test Name: Chapter Test

Class: ____X____ Subject: _____Math_____

Chapter(s): Arithemetic Progression

Time: __45__ Minutes Maximum Marks: __30__

General Instructions:

All questions are compulsory.

The question paper consists of __4__ Sections (A, B, C, D).

Use of calculator is not permitted.

Draw neat and labelled diagrams wherever required.

Internal choices are provided as per instructions.

The duration of the question paper is 45 minutes.

Marks allotted to each question are indicated against it.

Today's hard work makes your Tomorrow better

Section - A

1 × __6__ = __6__ Marks

1. *The AP is given as: 3x+1, 5x-3, 7x-7. Find the value of* ***x****, then write* ***a*** *and* ***d****.*
2. *The first three terms of an AP are in the ratio 1 : 2 : 3.*
   Find the AP and hence write a and d.
3. *If a=x-3,d=3-x , Write the AP. What special type of AP is this?*
4. √3, √12, √27, √48 ....
   Check whether the given numbers form an AP.
   If yes, write the next two terms.

5. *Find the 11th term of the AP whose: first term = 2x+1, common difference = x-1.*
6. *Find the sum of the first 8 terms of the AP:* $1^2, 3^2, 5^2, 7^2, \ldots$

Section - B

2 × __4__ = __8__ Marks

7. *Determine the AP whose (x + 2)th term is 3x and (2x + 2)th term is (5x + 4).*
8. *Check whether* ***1001*** *is a term of the AP: 3, 7, 11, 15, ...*
9. *If the sum of the first 15 terms of an AP is -180 and its first term is -2, find the 20th term.*
10. *How many terms of the AP 3/2, 7/2, 11/2, ... must be taken so that their sum is* ***150****?*

Section – C

3 × __4__ = __12__ Marks

11. The first term of an AP is 7, the last term is 77 and the sum is 924. Find the number of terms and the common difference.

12. If the sum of the first 10 terms of an AP is 150 and that of the first 20 terms is 500, find the sum of the first 25 terms.

13. The sum of the 5th and 11th terms of an AP is 36 and the sum of the 7th and 15th terms is 68. Find the first four terms of the AP.

14. Find the 9th term from the end of the AP: 18, 14, 10, …, −54

Section – D (Case Based)

__4__ Marks

15. In an arithmetic progression, the sum of the first 10 terms is equal to the sum of the next 20 terms. If the 30th term of the AP is 3 times the 10th term, find:
(I) the first term, and
(II) the common difference of the AP.

OR

16. The sum of the first nnn terms of an AP is $3n^2+5n$.
If the ratio of the 15th term to the 5th term is 5:1, find:

(I) the value of n for which the sum is minimum,
(II) the first three terms of the AP

Question Type	No. of Qs	Marks	Time (min)
1 Mark	6	6	9 min
2 Marks	4	8	12 min
3 Marks	4	12	20 min
4 Marks	1	4	4 min
Revision / Buffer Time			0–3 min
TOTAL TIME			45 min