

MALUS COACHING CLASSES

Cambridge Layout Ulsoor Bangalore-560008

Class:10th

Subject: Mathematics

Max Marks:50

TEST I - Arithmetic Progression

I Solve the following Questions:-

2 x 9 = 18

1. The cost of digging a well after every metre of digging, when it costs Rs 150 for the first metre and rises by Rs 50 for each subsequent metre.
2. Write first four terms of the A.P. when the first term a and the common difference d are given as follows (i) $a = 10, d = 10$ (ii) $a = -2, d = 0$ (iii) $a = 4, d = -3$.
3. For the following A.P.s, write the first term and the common difference.
(i) $3, 1, -1, -3 \dots$ (ii) $-5, -1, 3, 7 \dots$
4. Which of the following are APs? If they form an A.P. find the common difference d and write three more terms. (i) $2, 4, 8, 16 \dots$ (ii) $-1.2, -3.2, -5.2, -7.2 \dots$ (iii) $-10, -6, -2, 2 \dots$
5. Choose the correct choice in the following and justify I. 30th term of the A.P: $10, 7, 4, \dots$, is
A.) 97 B.) 77 C.) -77 D.) -87
6. Which term of the A.P. $3, 8, 13, 18, \dots$ is 78?
7. Check whether -150 is a term of the A.P. $11, 8, 5, 2, \dots$
8. How many three digit numbers are divisible by 7
9. How many multiples of 4 lie between 10 and 250?

II Find using formulas Of an AP :-

3 x 4 = 12

1. If the 3rd and the 9th terms of an A.P. are 4 and -8 respectively. Which term of this A.P. is zero.
2. Find the 31st term of an A.P. whose 11th term is 38 and the 16th term is 73
3. An A.P. consists of 50 terms of which 3rd term is 12 and the last term is 106. Find the 29th term
4. Find the sum of the following Aps.
(i) $2, 7, 12, \dots$, to 10 terms. (ii) $-37, -33, -29, \dots$, to 12 terms (iii) $0.6, 1.7, 2.8, \dots$, to 100 terms.

III Solve the folloeing :-

2 x 10 = 20

- In an AP (i) Given $a = 5, d = 3, a_n = 50$, find n and S_n .
- (ii) Given $a = 7, a_{13} = 35$, find d and S_{13} .
 - (iii) Given $a_{12} = 37, d = 3$, find a and S_{12} .
 - (iv) Given $a_3 = 15, S_{10} = 125$, find d and a_{10} .
 - (v) Given $d = 5, S_9 = 75$, find a and a_9 .
 - (vi) Given $a = 2, d = 8, S_n = 90$, find n and a_n .
 - (vii) Given $a = 8, a_n = 62, S_n = 210$, find n and d .
 - (viii) Given $a_n = 4, d = 2, S_n = -14$, find n and a .
 - (ix) Given $a = 3, n = 8, S = 192$, find d .
 - (x) Given $l = 28, S = 144$ and there are total 9 terms. Find a .
