REVISION WPP OF ARITHMETIC PROGRESSIONS

Sr. No.	QUESTIONS
1.	Write the general form of A.P
2.	Write the formula for finding nth tern and for finding sum of nth term.
3.	Find the 9^{th} term from the end of the A.P 5,9,13…….185.
4.	For what value of k will k+9, 2k-1 and 2k+7 are the consecutive terms of the A.P?
5.	For what value of k will 2k+1, 3k+3 and 5k-1 are the consecutive terms of the A.P?
6.	How many terms of the A.P 18, 16, 14…… be taken so that their sum is zero?
7.	How many terms of the A.P 27, 24, 21…… be taken so that their sum is zero?
8.	How many terms of the A.P 65, 60, 55…… be taken so that their sum is zero?
9.	The fourth term of an AP is 0. Prove that its 25th term is triple its 11th term.
10.	Find the 20th term from the end of the AP 3, 8, 13……..253.
11.	Find the sum of first 40 positive integers divisible by 6 also find the sum of first 20 positive integers divisible by 5 or 6.
12.	Find the sum of all 3 digit numbers which leave remainder 3 when divided by 5.
13.	Find the value of x if $2x+1, x^2+x+1, 3x^2-3x+3$ are consecutive terms of an AP.
14.	Prove that $a_{m+n}+a_{m-n}=2a_m$
15.	If the following terms form a AP. Find the common difference & write the next 3 terms3, 3+ √2, 3+2√2, 3+3√2…….
16.	Find the sum of a+b, a-b, a-3b, …… to 22 terms.
17.	If the pth term of an AP is q and the qth term is p. Prove that its nth term is (p+q-n).

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18.	If the pth , qth & rth term of an AP is x, y and z respectively, show that x(q-r) + y(r-p) + z(p-q) = 0
19.	A man arranges to pay a debt of Rs.3600 in 40 monthly instalments which are in a AP. When 30 instalments are paid he dies leaving one third of the debt unpaid. Find the value of the first instalment.
20.	If the sum of first 7 terms is 49 and sum of first 17 terms is 289. Find the sum of first n terms.
21.	Divide 56 in four parts in A.P such that the ratio of product of their 1^{st} and 4^{th} term to the product of 2^{nd} and 3^{rd} is 5:6.
22.	The sum of first three terms in A.P is 12. And sum of their cubes is 288, find the numbers.
23.	Find the middle term of the A.P 6, 13, 20, ……216.
24.	The 4^{th} term of A.P is 11. The sum of 5^{th} and 7^{th} terms is 34. Find the common difference.
25.	The 5^{th} term of A.P is 20. The sum of 7^{th} and 11^{th} terms is 64. Find the common difference.
26.	The 9^{th} term of A.P is -32. The sum of 11^{th} and 13^{th} terms is -94. Find the common difference of the A.P.
27.	If the sum of first n-terms of an A.P is $\frac{1}{2}(3n^2 + 7n)$, then find nth terms. Hence write its 20^{th} terms.
28.	If s_n denotes the sum of first n-terms of A.P, prove that $s_{30} = 3[s_{20} - s_{10}]$
29.	If s_n denotes the sum of first n-terms of A.P, prove that $s_{12} = 3[s_8 - s_4]$
30.	If 14^{th} terms of A.P is twice its 8^{th} terms . if its 6^{th} terms is -8 , then find the sum of its first 20 terms.
31.	If 16^{th} terms of A.P is five times its 3^{rd} term . if its 10^{th} terms is 41, then find the sum of its first 15 terms.
32.	Find the middle term of the AP 1, 8, 15….505
33.	Find the number of natural number between 101 and 999 which are divisible by 2 or 5.

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34.	The sum of nth term of A.P is $5n - n^2$. Find the nth term of AP.
35.	If the sum of first 7-terms is 182. If its ratio of its 4th and 17th term are in ratio 1:5, find the AP
36.	Find the sum of all natural no. between 101 & 304 which are divisible by 3 or 5. Find their sum.
37.	The ratio of the sum of first n terms of two AP's is 7n+1:4n+27. Find the ratio of their 11th terms.
38.	If 17th term of an AP exceeds its 10th term by 7. The common difference is
39.	The nth term of the AP in 2, 5, 8… is
40.	11th term of the AP: −3,−12, 2...is
41.	Which term of the AP: 3, 8, 13, 18 ... is 78?
42.	Find the number of terms in each of the following APs: (i) 7,13,19....,205 (ii) 18,$15\frac{1}{2}$,13..., −47
43.	Check whether –150 is a term of the AP: 11,8,5,2...
44.	An AP consists of 50 terms of which 3rd term is 12 and the last term is 106. Find the 29th term.
45.	How many multiples of 4 lie between 10 and 250?
46.**	Which term of the AP: 121, 117, 113, …..is its first negative term?
47.	Find the 11th term from the last term of the AP 10, 7, 4,……,-62.
48.	Find the sum of first n odd natural numbers.
49.	Find the sum of first 11 terms of AP 2, 6, 10…
50.	Find the sum of first hundred even natural numbers divisible by 5.
51.	The first term of an AP is -7 and common difference 5. Find its general term.
52.	Find the 31st term of an AP whose 11th term is 38 and 16th term is 73.
53.	If the third and the ninth terms of an AP are 4 and –8 respectively, which term of this AP is zero?
54.	How many three digit numbers are divisible by 7?
55.	A contract on construction job specifies a penalty for delay of completion beyond a certain date as follows: Rs. 200 for the first day, Rs 250 for the second day, Rs 300 for the third day, etc., the penalty for each succeeding day being Rs 50 more than for the preceding day. How much money the contractor has to pay as penalty, if he has delayed the work by 30 days?

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56.	Check whether 301 is a term of the list of numbers 5, 11, 17, 32,……..?
57.	Determine the AP whose third term is 16 and the 7th term exceeds the 5th term by 12.
58.	Find the sum to n term of the AP in 5, 2, -1, -4, -7…….
59.	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 term, find the value of each of the prizes.
60.	The pth term of an AP is q and qth term is p. Find its $(p+q)th$ term.
61.	If m times the mth term of an A.P is equal to n times its nth term, show that the $(m+n)th$ term of the AP is zero.
62.**	If the sum of three numbers in AP, be 24 and their product is 440, find the numbers.
63.	The sum of four numbers in AP is 50 and the greatest number four times the least. Find the numbers
64.	Find the sum of all integers between 84 and 719 which are multiples of 5.
65.	Find the numbers of all three digits numbers which are divisible by 9.

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