X – Mathematics Assignment No – 07 – Arithmetic Progression

Q1. The n^{th} term of a sequence is $(8-3n)$ Find the Sum of 22 terms of the A.P.

Q2. The last term of an A.P is 120. Its 1st term and Common difference are 20 and 5 respectively. Find the Sum of the A.P.

Q3. The n^{th} term of an A.P. is 18. Its first term is 50 and Common difference is (-4) respectively. Find the Sum to n terms of the A.P.

Q4. How many terms of the A.P. 3, 7, 11, ... Should be added to get the Sum 240 ?

Q5. Find the number of terms of the A.P. 20, 16, 12, ------ Which when added gives the Sum 56. Explain the reason for double Answer.

Q6. Find A.P. if $S_n = 4n^2 - n$.

Cont-Pg-2

Q7. Find the sum of all integers between 50 and 450 which are divisible by 7

Q8. The third term of an A.P. is 7 and the seventh term exceeds three times the third term by 2. Find the sum of first 30 terms.

Q9. How many terms are there in an A.P. whose first and fifth terms are (−14) and 2 respectively and the sum of the terms is 40?

Q10. If $S_n = 2n^2 + 3n$ denotes the sum to n terms of a progression. Prove that it is in A.P. Find its k^{th} term.

ANSWERS:-

(Q1) −583	(Q5) 4 or 7 $S_4 = S_7 = 56$ $\because S_5$ To $S_7 = 0$	(Q8) 1710
(Q2) 1470		(Q9) 10
(Q3) 306	Q6. 3, 11, 17, ...	(Q10) $(4k+1)$
(Q4) 10	(Q7) 14364	