Ch: Arithmetic Progressions	Maximum Marks: 25	Duration: 1 hr

1. In an Ap $a_{25} - a_{12} = -52$ Its common difference is$\qquad$(1)
    (a) 4$\qquad\qquad\qquad\qquad\qquad\qquad$(c) 3
    (b) -4$\qquad\qquad\qquad\qquad\qquad\qquad$(d) -3

2. Sum of first 6 multiples of 5 is$\qquad$(1)
    (a) 55$\qquad\qquad\qquad\qquad\qquad\qquad$(c) 105
    (b) 90$\qquad\qquad\qquad\qquad\qquad\qquad$(d) 150

3. How many terms are in AP 7, 16, 25, …349 ?$\qquad$(2)

4. Find the sum of 14 terms of the series 5+3+1+…$\qquad$(2)

5. Which term of the sequence $17, \frac{81}{5}, \frac{77}{5}, \frac{73}{5}, ...$ is the first negative term ?$\qquad$(2)

6. Find the sum of all two digit natural numbers.$\qquad$(3)

7. Which term of AP 3, 15, 27, 39, is 120 more than its 21st term ?$\qquad$(3)

8. Find the AP whose sum to n terms is $\frac{3n2+5n}{2}$.$\qquad$(3)

9. If 7 times the 7 terms of an AP is equal to 11 times its 11th term, show that the 18th term of the AP is zero.$\qquad$(4)

10. A spiral is made up of successive semicircles, with centers alternatively at A and B, starting with center at A first and then at B, with radii 0.5 cm, 1.0 cm, 1.5 cm, 2.0 cm and so on. The total length of such a spiral made up of 13 consecutive semi circles is ? (Take π=22/7)$\qquad$(4)