

All questions are compulsory . Marks are indicated against each question.

Q1. Is 68, a term of the A. P. 7 , 10 , 13,.....? (1)

Q2. Find the sum of first 22 terms of the A.P . 8 , 3 , -2 (1)

Q3. If n^{th} term of an A.P is $2n+1$, find S_n of A.P . (1)

Q4. Find a point on the line joining A(-7 , 4) and B(-8 , -17) which divides AB in ratio 2:1 . (1)

Q5. Find the area of a triangle whose vertices are: A(4,4),B(0,0) and C(6,2). (1)

Q6. Which term of the A.P 121,117,113.....is its first negative term? (2)

Q7. Find K so that 15 ,K , -1 are in A.P. (2)

Q8. Prove that the points (5,-2) ,(6,4) and (7,2) form an isosceles triangle. (2)

Q9. If the points (x,y) , (1,2) and (7,0) are collinear, prove that $x+3y-7=0$. (3)

Q10. The sum of 7^{th} and 3^{rd} terms of an A.P is 6 and their product is 8. Find the sum of first 20 terms of the A.P . (3)

Q11. The digits of a positive integer, having three digits are in A.P. and their sum is 15. The number obtained by reversing the digits is 594 less than original number. Find the number. Or

Find the coordinates of the point R on the line segment joining the points P(-1,3) and Q(2,5) such that $PR = \frac{3}{5} PQ$. (3)