MATHS TEST -2 **TOTAL MARKS: 40**

1) Find the coordinates of the point which divides the line segment joining (−3, 5) and (4, −9) in the ratio 1 : 6 internally. [2M]

2) If a die is rolled twice, find the probability of getting an even number in the first time or a total of 8. [5M]

3) A straight line cuts the coordinate axes at A and B. If the mid point of AB is (3, 2), then find the equation of AB. [5M]

4) Find the centroid of the triangle whose vertices are A(4, 6), B(3, -2) and C(5, 2). [2M]

5) Construct a cyclic quadrilateral PQRS with PQ = 4cm QR=6cmPR=7.5cm QS = 7cm.[10]

6) Find the x and y intercept of the straight line 5x+3y-15=0. [2M]

7) A card is drawn from a deck of 52 cards. Find the probability of getting a King or a Heart or a Red card. [5M]

8) Find the equations of the straight line segment whose end points is the point of intersection of the straight lines 2x-3y+4=0, x-2y+3=0 and the midpoint of the line joining the points (3,-2) and (-5,8) [5M]

9) The probability of selecting a queen of hearts when a card is drawn from a pack of 52 playing cards is_____ [1M]

10) Show that the straight lines 3x -5y +7=0 and 15x+9y+4=0 are perpendicular . [2M]