

# Activity Worksheet

Challenging brain

Sub : Mathematics

Grade: X

Date: .....

Name: .....

ID No.....

Write the correct answer for each of the following:

i. If one zero of the quadratic polynomial  $x^2 - 5x + k$  is  $-4$ , then the value of  $k$  is

- (a) 36                      (b)  $-36$   
(c) 18                      (d)  $-18$

ii. If the zeroes of the quadratic polynomial  $x^2 + (a+1)x + b$  are 2 and  $-3$ , then

- (a)  $a = -7, b = -1$                       (b)  $a = 5, b = -1$   
(c)  $a = 2, b = -6$                       (d)  $a = 0, b = -6$

iii. If a polynomial of degree 6 is divided by a polynomial of degree 2, then the degree of the quotient is 1

- (a) less than 4                      (b) less than 2  
(c) equal to 2                      (d) equal to 4

iv. If one of the zeroes of a quadratic polynomial of the form  $x^2 + ax + b$  is the negative of the other, then it

- (a) has no linear term and the constant term is negative  
(b) has no linear term and the constant term is positive  
(c) can have a linear term but the constant term is positive  
(d) can have a linear term but the constant term is negative

v. A quadratic polynomial with sum and product of its zeroes as 8 and  $-9$  respectively is

- (a)  $x^2 - 8x + 9$                       (b)  $x^2 - 8x - 9$   
(c)  $x^2 + 8x - 9$                       (d)  $x^2 + 8x + 9$

vi. If one of the zeroes of the cubic polynomial  $x^3 + ax^2 + bx + c$  is  $-1$ , then the product of the other two zeroes is

- (a)  $a - b - 1$                       (b)  $b - a - 1$   
(c)  $b - a + 1$                       (d)  $a - b + 1$