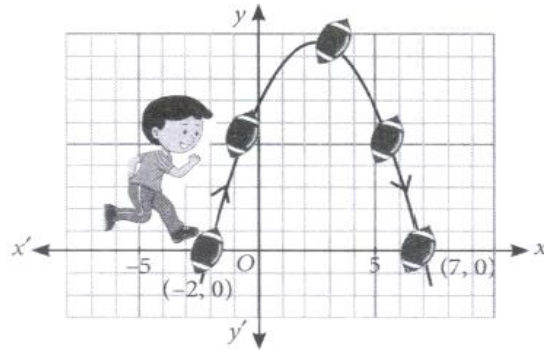# GRADE 10 - CASE STUDY QUESTIONS FOR CLASS WORK

CHAPTER : 2 - POLYNOMIALS

In a soccer match, the path of the soccer ball in a kick is recorded as shown in the following graph.

Based on the above information, answer the following questions:

(i) The shape of path of the soccer ball is a :

       (a) Circle   (b) Parabola   (c) Line   (d) None of these

(ii) The axis of symmetry of the given parabola is

       (a) y-axis   (b) x-axis

       (c) line parallel to y-axis   (d) line parallel to x-axis

(iii) The zeroes of the polynomial, represented in the given graph, are

       (a) -1,7   (b) 5,-2   (c) -2,7   (d) -3,8

(iv) Write the polynomial which has -2 and -3 as its zeroes.

(v) For what value of 'x', the value of the polynomial $f(x) = (x-3)^2 + 9$ is 9?

ANSWERS :

(i) (b): The shape of the path of the soccer ball is a parabola.
(ii) (c): The axis of symmetry of the given curve is a line parallel to y-axis.
(iii) (a): The zeroes of the polynomial, represented in the given graph, are -2 and 7,
       since the curve cuts the x-axis at these points.
(iv) Required polynomial is x^2+5x+6
(v) $x = 3$