

1. Determine whether the following statements are true or false. (8 marks)
- a) If a quadratic equation has one zero, then the discriminant ( $\Delta$ ) of this equation is less than zero. \_\_\_\_\_
  - b) The discriminant ( $\Delta$ ) of a quadratic equation is greater than zero. The zeros of this equation could be 6 and  $-3$ . \_\_\_\_\_
  - c) The zeros of a quadratic equation whose discriminant ( $\Delta$ ) is  $-5$  could be 4 and  $-2$ . \_\_\_\_\_
  - d) If a quadratic equation has no zero, its discriminant ( $\Delta$ ) is equal to zero. \_\_\_\_\_
  - e) The zero of a quadratic equation is 1. Its discriminant ( $\Delta$ ) could be less than 0. \_\_\_\_\_
  - f) The discriminant ( $\Delta$ ) of a quadratic equation is  $-4$ . This equation has no zeros. \_\_\_\_\_
  - g) The zeros of a quadratic equation are 6 and 2. The discriminant ( $\Delta$ ) of this equation is zero. \_\_\_\_\_
  - h) If the discriminant ( $\Delta$ ) of a quadratic equation is greater than 0, then the equation has two distinct zeros. \_\_\_\_\_