Multiple-choice section – choose the correct answer

Question 1 [11.1]

Which of the following are irrational numbers?

, 5.3, , , 

A and  **B** 5.3,  and  **C** only **D** ,and 

Question 2 [11.1]

The value of  is between:

A 3 and 4 B 9 and 10 C 6 and 7 D 12.9 and 13.1

Question 3 [11.2]

 can be simplified to:

**A** 7 **B** 3 **C**  **D** 3

Question 4 [11.2]

11− 6 simplifies to:

A 5 B 50 C 5 D 5

Multiple-choice results: \_\_\_ / 4

Short answer section

Question 5 2 marks [11.1]

Choose from the following words to complete the sentences below.

base coefficient index irrational number power surd

 is an example of a \_\_\_\_\_\_\_\_\_ or an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Question 6 3 marks [11.3]

Simplify: + 4

Question 7 4 marks [11.4]

Expand and simplify (4 + ).

Question 8 5 marks [11.2]

Complete the following.

**(a)**  **(b)** 

Question 9 6 marks [11.5]

Simplify:

**(a)**  **(b)** 

Short answer results: \_\_\_ / 20

Extended answer section

Question 10 6 marks [11.2, 11.3]

Find the perimeter of each shape. Leave your answers as exact values (do not use a calculator to find decimal approximations).

**(a)** A circle with radius  mm.

**(b)** A triangle with sides of (2 + 7) m, ( 5 + ) m and (10 – 5) m.

Extended answer results: \_\_\_ / 6

TOTAL test results: \_\_\_ / 30