**Question 1**

Evaluate   ..........................  **(2 marks)**

**Question 2**

Express in the form    **.......................... (2 marks)**

**Question 3**

Find the value of    **.......................... (2 marks)**

**Question 4**

One of the following is equal to   for all values of  . Which one?

[   ]    [   ]    [   ]     
[   ]    [   ]   

**Question 5**

Simplify   Give your answer in the form   where   is an integer.

**.......................... (2 marks)**

**Question 6**

Which of these has the smallest value?

[   ]    [   ]    [   ]     
[   ]    [   ]   

**Question 7**

  can be written in the form

Find an expression for   in terms of   and  .

**.......................... (2 marks)**

**Question 8**

  Find the value of  .

**.......................... (2 marks)**

**Question 9**

Write   as a single power of

**.......................... (2 marks)**

**Question 10**

Write   in the form  , where   is a constant to be found.

**.......................... (3 marks)**

**Question 11**

Given that   work out the value of

**.......................... (2 marks)**

**Question 12**

  Work out the value of

**.......................... (3 marks)**

**Question 13**

Simplify

**.......................... (1 mark)**

**Question 14**

Write   in the form  , where   is an integer.

**.......................... (1 mark)**

**Question 15**

Simplify  , giving your answer in terms of   and

**.......................... (2 marks)**

**Question 16**

Fully simplify

**.......................... (1 mark)**

**Question 17**

Expand

Give your answer in the form  , where   and   are integers.

**.......................... (2 marks)**

**Question 18**

Work out   Give your answer in its simplest form.

**.......................... (2 marks)**

**Question 19**

Expand

Give your answer in the form  , where  and  are integers.

**.......................... (2 marks)**

**Question 20**

Expand and simplify

**.......................... (4 marks)**

**Question 21**

Rationalise the denominator of

**.......................... (2 marks)**

**Question 22**

Express   in the form   where   and   are integers.

**.......................... (3 marks)**

**Question 23**

Evaluate:

**.......................... (2 marks)**

**Question 24**

Write   in the form

**.......................... (2 marks)**

**Question 25**

Rationalise the denominator

**.......................... (3 marks)**

**Question 26**

Rationalise the denominator

**.......................... (3 marks)**

**Question 27**

Rationalise the denominator and simplify

**.......................... (4 marks)**