

GCSE Computing

Revision Pack

ONE

Logic Gates and some Data Representation Questions

Name:

/27 PASS Mark = 25+

Attempt One %

Attempt Two %

Attempt Three %

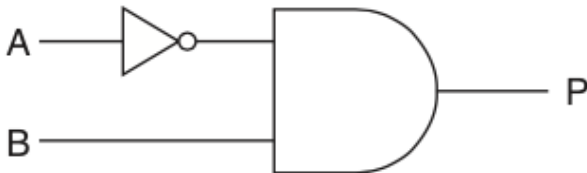
Areas of Strength

Areas for Development

1. Calculate the denary value of the 8-bit binary number 10010111. You must show your working. (2 marks)

2. Add the following two 8-bit binary numbers **and** explain the result. You must show your working. 10010111 + 11011000 (3 marks)

3. The following logic circuit can be written as $P = (\text{NOT } A) \text{ AND } B$



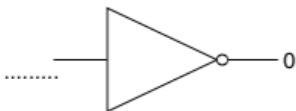
Complete the following truth table for the circuit given above. (3 marks)

4. Draw the circuit diagram which will represent the circuit $P = \text{NOT } (A \text{ AND } B)$ (2 marks)

5. For the logic diagram in Qu4, State the output (P) of the circuit if the inputs are: A=1 B=0 and then A=1 B=1 (2 marks)

6. Draw the logic circuit for $P = (A \text{ OR } B) \text{ AND } C$ (2 marks)

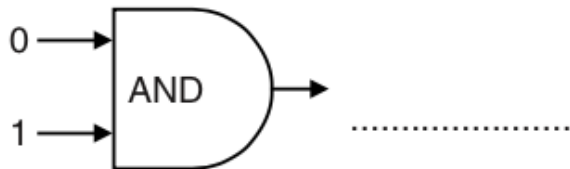
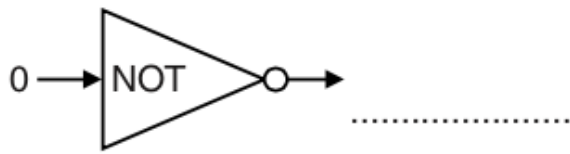
7. Complete the following logic circuit by filling in the blanks. (4 marks)



8.

State the output of each of the following logic circuits for the inputs given.

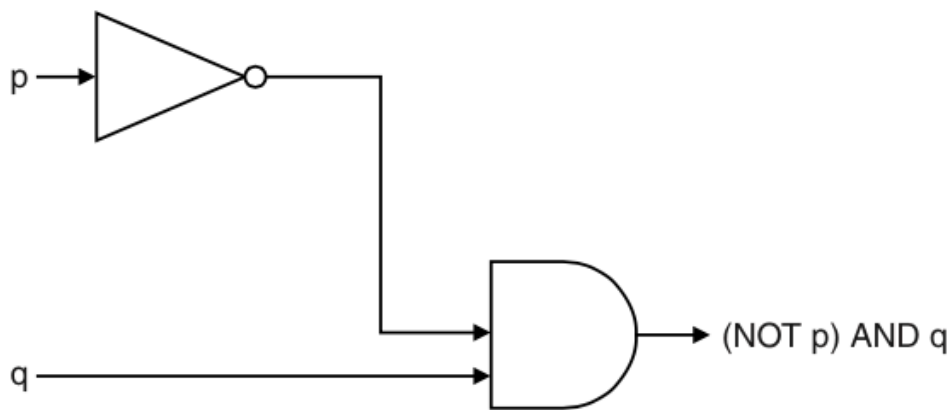
(2 marks)



9.

Complete a truth table for the following logic diagram

(3 marks)



10.

Complete a truth table for the following logic diagram

(4 marks)

