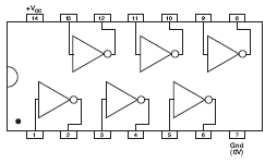
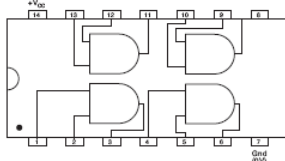


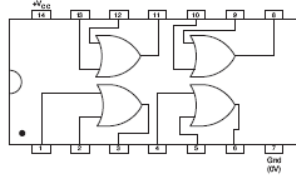
7404



7408



7432



Design & Technology



S3 Engineering Science Homework Booklet



DESIGN
TECHNOLOGY

Design & Technology

Name: _____
Class: _____
Teacher: _____

Homework 1 - Logic

1. Complete the truth tables for the following logic gates.

a) **OR** gate

Input A	Input B	Z
0	0	
0	1	
1	0	
1	1	

b) **AND** gate

Input A	Input B	Z
0	0	
0	1	
1	0	
1	1	

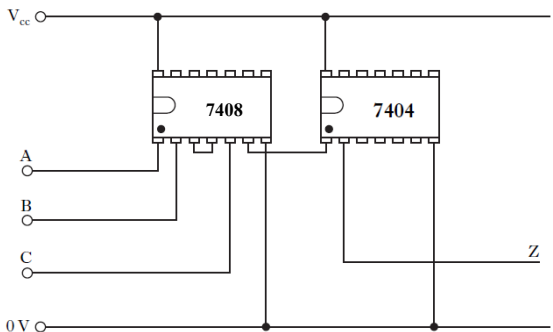
c) **NOT** gate

Input	Output
0	
1	

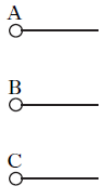
KU	RNA
1	0
1	0
1	0

Homework 3—IC Chips (Cont.)

2. A set of DJ turntables has a number of indicator lights. Part of the circuitry for the control of these lights is shown below.



Draw the logic diagram for the wiring circuit shown above.

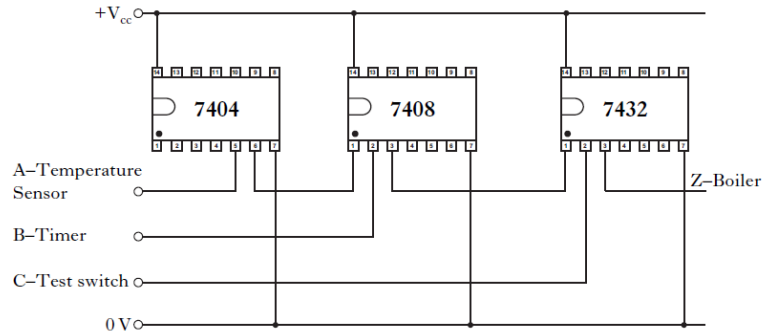


 Z

KU	RNA
3	2
1	0
	9

Homework 3 - IC Chips

3. Part of an electronic circuit used to control a central heating system is shown below.



- a) Complete, with reference to the Data Booklet and the wiring diagram, the logic diagram for the central heating system.

A

B

C

KU	RNA
	6 5 4 3 2 1 0

Homework 1 - Logic (Cont.)

2. Draw the correct symbols for the following logic gates in the spaces provided.

- a) **OR** gate

- b) **AND** gate

- c) **NOT** gate

KU	RNA
210	
210	
210	
9	

