

# **Faculty of Computing**

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**Subject:** Computer Architecture

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#### Lab Task

## Task 1(OR):

START:

**INP** 

STA NUM

**INP** 

OR NUM

**OUT** 

HLT

NUM: .data 1 0

EXECUTING...

Enter Inputs, the first of which must be an Integer: 1

Enter Inputs, the first of which must be an Integer: 0

Output: 1

EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]

### Task 2(NAND):

START:

**INP** 

STA NUM

**INP** 

NAND NUM

**OUT** 

HLT

NUM: .data 1 0

```
EXECUTING...

Inter Inputs, the first of which must be an Integer: 1

Inter Inputs, the first of which must be an Integer: 0

Output: -1

EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```

**Computer Architecture** 

#### Task 3(NOR):

```
START:
INP
STA NUM
INP
NOR NUM
OUT
HLT
NUM: .data 1 0
```

```
EXECUTING...
Enter Inputs, the first of which must be an Integer: 1
Enter Inputs, the first of which must be an Integer: 0
Output: -2
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```

### Task 4(XOR):

START:

**INP** 

STA NUM

**INP** 

**XOR NUM** 

**OUT** 

HLT

NUM: .data 1 0

```
EXECUTING...
Enter Inputs, the first of which must be an Integer: 0
Enter Inputs, the first of which must be an Integer: 1
Output: 1
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```

#### **Computer Architecture**

# Task 5(NOT):

START:

**INP** 

STA NUM

**INP** 

NOT NUM

OUT

HLT

NUM: .data 1 0

EXECUTING...

Enter Inputs, the first of which must be an Integer: 1

Output: -2

EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]