

The Core Memory Project

Language H

NCR

www.thecorememory.com

The operands required are: **AMOUNT**, **UNIT PRICE**, **DISCOUNT**, **GROSS VALUE** and **NET VALUE**.

A valid sequence of Language H statements to produce the required result is:

```
TAKE AMOUNT
MULTIPLY BY UNIT PRICE
LOAD GROSS VALUE
SUBTRACT DISCOUNT
LOAD NET VALUE
```

At the end of this process the required amounts are correctly stored as **GROSS VALUE** and **NET VALUE** and the amount of **NET VALUE** is also in the Auxiliary operand.

An alternative means of arriving at the same amounts would be:

```
MULTIPLY AMOUNT BY UNIT PRICE
SUBTRACT DISCOUNT
```

After this process the amount of Gross Value is stored as **AMOUNT** and the original value of the operand **AMOUNT** would be lost. The Auxiliary operand contains the amount of Net Value which would be available here and nowhere else. If the original value of **AMOUNT** were to be required again in the program this would not be a suitable set of statements to use.

A **LOAD** statement allows the movement of operand values within the working store of the object computer. It can also be used for setting initial values of operands at the start of a program,

e.g. **LOAD UNIT PRICE WITH £1. 2. 6.**

(c) *Flow*

```
TURN
GO
REPEAT
PERFORM
BRANCH
DO SUBROUTINE
HALT
WAIT
```

The statements in a Language H program are obeyed in the sequence in which they are written unless a statement using a Flow command is used to interrupt that sequence.

The interruption, or transfer of control, may be:

- (i) Unconditional—as in an absolute transfer of control to another part of the program.
- (ii) Conditional—as in a transfer of control only if the value of a certain operand satisfies a given condition.

If a transfer of control does take place it is normally to another Language H statement in the program which has been 'labelled' for this purpose. The exception occurs when a subroutine is entered from the main program. A 'label' is a