

Mathematics for Computing

C20175

Assignment #1

- 1) Write notes explaining what is:
 - a) An algorithm
 - b) A variable
 - c) A loop

- 2) Devise algorithms for multiplication as follows:
 - a) 1 digit multiplied by 1 digit (One by One)
 - b) Several digits multiplied by 1 digit (Many by One)
 - c) Several digits multiplied by several digits (Many by Many)

- 3) The algorithms should be presented in flow chart format. All sketches used in the development of the flow charts should be included in your submission.

- 4) Each algorithm can be used in the definition of its succeeding algorithm.

- 5) Use your algorithm to carry out the following calculations:
 - a) $5 * 7$
 - b) $2345 * 9$
 - c) $4209 * 251$

(You must provide evidence of the use of the algorithm in the performance of the calculation. This should include a series of boxes used to indicate the value of each of the variables used in the algorithm at each stage of the calculation.)

Deadline for submissions: 20-12-2001

November 2001