21. Using PERFORM

Usually the Sections and Paragraphs in a program will simply be executed in the order that they appear in the Procedure Division.

Another way of organising a program's Procedure Division is to have a Section or Paragraph which controls the order in which the other Sections or Paragraphs are carried out. This is useful because -

1. a long program is made easy to follow - if you want to know what a program does without looking at the details all you have to do is look at the control paragraph;
2. paragraphs can be carried out in a different order or repeated.

One way of achieving this is to use the PERFORM command.

e.g.

```
PROCEDURE DIVISION.
MAIN-PARAGRAPH.
    PERFORM GET-STUDENT-MARKS
    PERFORM PRINT-REPORTS
    STOP RUN.

GET-STUDENT-MARKS.
    DISPLAY 'NAME ?'  ACCEPT STUDENT-NAME
    DISPLAY 'MARK ?'  ACCEPT STUDENT-MARK.

PRINT-REPORT.
    DISPLAY STUDENT-NAME
    DISPLAY STUDENT-MARK.
```

Exercises

1. Why is STOP RUN not at the end of the example program ?
2. Rewrite the example program so that it will do the same thing without using PERFORM.

For each of the following questions, write two programs:

i. without using PERFORM;
ii. using PERFORM.

3. The program asks for an employee's name, department and length of service (in years). It then calculates his/her annual pay by adding a bonus of £100 for each year of service to the basic pay of £8000. Tax is calculated at 30% of pay. Finally, a payslip is printed, showing the firm's name (A & B Computing P.L.C.), the employee's name, his/her monthly gross pay, tax for the month and monthly pay after tax.
4. The program asks for a student's name and marks for English, French, Computer Studies, Maths and Physics, calculates the average and prints a full report.