

TN-20

MANAGEMENT INFORMATION SYSTEM

SATISH CHANDRA  
DIRECTOR

STUDY GROUP

VIPIN GAINDHAR  
ASHA SINHA  
DEEPA KARAWADE  
N.K. NANDA

NATIONAL INSTITUTE OF HYDROLOGY  
JAL VIGYAN BHAVAN  
ROORKEE-247 667 (UP) INDIA

1985-86

## PREFACE

The Management Information System (MIS) is the complement of people and machines that develops the right information and communicates it to the right persons at the right time. It has been around almost since the beginning of civilization. However, it was only with the introduction of electronic computer in the later half of the twentieth century that Management Information System emerged as well defined and important discipline.

The report describes a Management Information System package developed on VAX-11/780 computer using COBOL for its implementation, designed for the purpose of payroll accounting for employees of National Institute of Hydrology. The test inputs and example calculations have also been incorporated to clarify the package.

Dr N K Nanda, Professor and Head, Department of Electronics and Communication Engineering, University of Roorkee, Roorkee has provided valuable suggestions and guidance through out the development of the Management Information System package. Sri Vipin Gaindhar M.E. Student, Department of Electronics and Communication Engineering, University of Roorkee, Roorkee has contributed toward the development of the package.

## CONTENTS

		Page
	Abstract.....	i
1.0	INTRODUCTION.....	1
2.0	PURPOSE OF THE PROGRAMME.....	3
3.0	METHOD USED.....	5
4.0	THE PROGRAMME.....	18
5.0	INPUT AND OUTPUT DESCRIPTION.....	54
6.0	TEST DATA.....	62
7.0	EXAMPLE CALCULATIONS.....	65
8.0	RECOMMENDATIONS.....	73
	REFERENCES	74

## ABSTRACT

This piece of work is aimed at design and implementation of a Management Information System Package for the employees of National Institute of Hydrology, Roorkee. This utility package computerizes the whole process of payroll accounting and personal information.

The tasks performed by this package are:

- i) Validation of incoming raw data (available on disk), its organisation and thereby creation of three master files i.e. one for personal record of the employees, one for salary and other entitlements and the third for recoveries to be made from the pay.
- ii) Information retrieval from the three master files.
- iii) Maintenance of the three master files.

The first task is done by software routine which performs various checks for validation of data in all records. After checking the data for validity, it creates the three master files. The second task is performed by retrieving information from the three master files, for the preparation of payroll. The third task is twofold. In the first step, the data to be used for updating the master files is validated. In step-2 a maintenance routine is used which reads the entries of the master files and updation file and correspondingly modifies the three sequential master files.

In brief, the work provides a useful accounting package for NIH which will be integrated with a larger software package to implement complete Management Information System for NIH.

## **1.0 INTRODUCTION**

### **1.1 Management Information System**

The information system is a set of organized procedures that, when executed, provide information for decision making and/or control of the organisation. A management information system(MIS) is the complement of people and machines that develops the right information and communicates it to the right persons at the right time. The main purpose of MIS is to provide the management with information for planning and control. to provide constodial processing required to keep the organization operating and to provide the records necessary as a base for the first two. It is a system designed to establish a data base for the organization, capture pertinent data about each transaction and change in environment, evaluate the data to determine their informational content and communicate each part of that information to the persons having need of that particular information.

### **1.2 The Information System as Data Processing System**

Still another way to view the MIS is as a data processing system involved with the capture and processing of data to obtain information.

The concept of integrated data processing is significantly important in this area. In integrated data processing, the attempt is to record each piece of data once, to record it correctly, and then to utilize it in that same form in every possible way to elicit information for the planning and control purposes of the operation so that there should

be as little duplicatin as possible. This prevents errors from creeping in.

For an effective information system to be developed it is required that information be available to all parts of the system. The MIS is a mix of information on employees, products, facilities, customers and finances.

The needed records can be considered as files for each area. That is, we need files of data about employees, files providing data about employees, files providing data about research and development activities and files representing financial data for the firm. Thus, we need to establish a data base for the organisatin, a library of files containing all data and information relevant to the organisation.

This data processing view of the MIS of an organisation thus recognizes three aspects of the job. First, the data base, a complete library of relevant files, must be established. Secondly, procedures must be developed to capture relevant data from transactions and from the environment and use these data to update the data base. Third process must be developed whereby the data base can be accessed and its contents analyzed and organized and resulting information reported to the management to support its decision making function.

## 2.0 Purpose of the Programme

Management information systems evolve over a period of years. Before reaching that level, an organisation must first go through the process of automating its routine accounting functions.

When the accounting systems are installed and operating well, an organisation can proceed to the next phase, which produces management reports that provide information to run a system more efficiently. Basically the reports in this phase are analysis for management to study and make decisions from.

The final phase in which the company's decision-making process is designed to centre about computer-based information, requires advanced technical skill and experienced management.

An MIS is thus, a necessity, and not a luxury, for the efficient functioning and management of an organisation.

The MIS package that has been developed at NIH, considers the payroll accounting aspects of a Management Information System. Payroll is the most universal data processing application. For the design of this package modular approach has been considered. Three basic files have been considered for the implementation of the task.

They are Personal Record File, Incoming Salaries File, and Recoveries Files. Any number of files can be further added to this package for various other records without affecting other parts. Each of the three files we have taken consists of one identical field, that is, employee's identification number. The record of each employee is made unique ID-NO. Any file further added to this package will bear first entry of its record as ID-NO. The ID-NO will keep complete track



of each record of an employee.

Thus a complete MIS package can be developed using this modular approach.

The package has been developed on VAX-11 computer using COBOL for its implementation. The availability of a COBOL on VAX-11 and efficient use of this language for data processing has augmented the potential of developing an efficient software package for the accounting problem undertaken.

### 3.0 METHOD USED

#### 3.1 Information Retrieval from Master Files

The three sequential master files created on disk and available for the package are:

- i) PER\_REC\_FILE
- ii) IN\_SALARIES\_FILE
- iii) IN\_RECOVERY\_FILE

This chapter deals, how various master files are processed for desired results.

The procedure for the program routine developed for this purpose is outlined in the following pages.

For the retrieval of information, a record is read from PER\_REC\_FILE and corresponding records of identical ID\_NO are read from IN\_SALARIES\_FILE and IN\_RECOVERY\_FILE. Salaries and allowances are added together, recoveries are added separately.

#### RETRIEVAL ROUTINE PROCEDURE

##### START

Open PER\_REC\_FILE, IN\_SALARIES\_FILE, IN\_RECOVERY\_FILE

REMARKS\_FILE as input files.

Open ON\_PAY\_SLIP\_FILE as output file.

Accept MONTH from terminal.

READ-1

Read PER\_REC\_FILE at end go to CLOSE\_FILES  
Write headings from working-storage into corresponding  
fields of output file.

Move ID\_NO\_1 to corresponding output file field.

Move NAME to corresponding output file field.

Move DESGN to corresponding output file field.

Move MONTH to corresponding output file field.

Write output file records.

Read REMARKS\_FILE at end go to Read-2

READ-2

Read IN\_SALARIES\_FILE at end go to Read-3

READ-3

Read IN\_RECOVERY\_FILE at end go to Read-3.

if

ID\_NO\_1 = ID\_NO\_2

and

ID\_NO\_1 = ID\_NO\_3

then

Move IN\_SALARIES\_FILE record and

IN\_RECOVERY\_FILE record into corresponding output file fields.

Write output file records

Compute

Gross-salary = BP+DA+ADA+DE-A+HRA+IR1+IR2+SP-PAY+MISCL

Total recovery = OPF+NPF+RFPA+IT+GIS+GIS-1+CGES+CADV+FBF+HR  
+FES-AD+EC+FAN-AD+OTHER

Write these calculated values in corresponding fields of output file.

#### Compute

Net Amount Payable = Gross Salary - Total Recovery

Write Net Amount Payable in corresponding field of output file before advancing next page.

Go to Read-1

#### Close-Files

Close all the input and output files.

stop.

Totals are subtracted to get the net amount payable. Various subrecords are moved to certain working-storage areas to get the print out in a desired format.

### **3.2 Maintenance of Master-Files**

Data files need to be maintained or updated to incorporate any changes in data that take place. Here maintenance or updating means any of the following three processes:

- i) Addition of new records.
- ii) Deletion of unwanted old records,
- iii) Modifying the contents of existing records.

Updating can be performed in two ways:

- i) Selective updating,
- ii) Massive updating.

Selective updating means the updating of some fields of a specific record. This is normally performed on line.

Massive updating is performed when all the fields of a particular

field are to be modified or like that. This is normally performed in batch processing environment.

### 3.2.1 Updating of Master Files

For the updating of the three master files i.e. PER\_REC\_FILE, IN\_SALARIES\_FILE, IN\_RECOVERY\_FILE, the procedure is given. Corresponding to each of the above files, an updating file has been created which contains the information about the changes to be made in the respective files. These updating files are PER\_UP\_FILE for PER\_REC\_FILE updating, SAL\_UP\_FILE for IN\_SALARIES\_FILE updating and REC\_UP\_FILE FOR IN\_RECOVERY\_FILE updating. The subrecords of each of these files are given in Table 3.1. Three output files, namely O\_PER\_REC\_FILE, O\_IN\_SALARIES\_FILE, O\_IN\_RECOVERY\_FILE.

Table 3.1

FILE : PER_UP_FILE	
RECORD NAME	SUBRECORDS
PER_UP_REC	ID_NO_4, CODE-1, TOT_REC_1, RECUR_1 (occurring 1 to 7 time depending on TOT_REC_1)
FILE : SAL_UP_FILE	
RECORD NAME	SUBRECORDS
SAL_UP_REC	ID_NO_5, CODE-2, TOT_REC_2, RECUR_2 (occurring 1 to 11 times depending on TOT_REC_2)

FILE	: REC_UP_FILE
RECORD NAME	SUBRECORD
REC_UP_REC	ID_NO_6, CODE_3, TOT_REC_3, RECUR_3 (occurring 1 to 15 times depending on TOT_REC_3)

### UPDATING ROUTINE PROCEDURE

#### START

Open PER\_UP\_FILE, SAL\_UP\_FULE, REC\_UP\_FILE as input.

#### OPEN-TEMP.

Open PER\_REC\_FILE, IN\_SALARIES\_FILE, IN\_RECOVERY\_FILE as input files.

Open O\_PER\_REC\_FILE, O\_IN\_SALARIES\_FILE

O\_IN\_RECOVERY\_FILE as output file

#### CLOSE-TEMP.

exit.

#### UPDATE-ROUTINE

Perform PER\_ROUTINE thru PER\_ROUTINE\_EXIT.

Perform SAL\_ROUTINE thru SAL\_ROUTINE\_EXIT.

Perform REC\_ROUTINE thru REC\_ROUTINE\_EXIT.

### CLOSE-FILES

Close all the files.  
Stop.

### PER-ROUTINE

Read PER\_UP\_FILE at end go to PER\_ROUTINE\_EXIT.

if

CODE\_1 = "M"

then

Perform MOD\_PER\_ROUTINE thru MOD\_PER\_ROUTINE\_EXIT.

else

if

CODE\_1 = "1"

then

Perform INS\_PER\_ROUTINE thru INS\_PER\_ROUTINE\_EXIT.

else

if

CODE\_1 = "D"

Perform DEL\_PER\_ROUTINE thru DEL\_PER\_ROUTINE\_EXIT.

Perform OPEN\_TEMP thru CLOSE\_TEMP.

Go to PER\_ROUTINE.

### PER-ROUTINE-EXIT

exit.

### PER-REC-INVERSION

Close PER\_REC\_FILE, O\_PER\_REC\_FILE.

Open O\_PER\_REC\_FILE as input file.

Open PER\_REC\_FILE as output file.

Copy O\_PER\_FILE data into corresponding PER\_REC\_FILE fields.

Close all files other than updating files.

### PER-REC-INVERSION-EXIT

exit.

### MOD-PER-ROUTINE

Read PER\_REC\_FILE at end go to MOD\_PER\_ROUTINE\_EXIT.

Copy PER\_REC\_IN into O\_PER\_REC\_IN.

if

ID\_NO\_4 = ID\_NO\_1

then

Initialize counter J to 0.

M\_P\_R\_START

Compute J = J + 1

if

J > TOT\_REC\_1

write O\_PER\_REC\_IN

Go to MOD\_PER\_ROUTINE

else

Move RU\_DATA\_1(J) to either of OU\_NAME,OU\_STAT\_TUS,  
OU\_DESIGN,OU\_DA\_TE\_OF\_JOINING,OU\_PIN\_OU\_STREET  
corresponding to whether RU\_NO\_1(J) is 1,2,3,4,5,6, or 7  
respectively.

Go to M\_P\_R\_START.

MOD\_PER\_ROUTINE\_EXIT

exit

INS\_PER\_ROUTINE

Copy PER\_REC\_FILE record into O\_PER\_REC\_FILE

Move ID\_NO\_4 to OU\_ID\_NO\_1

Move RU\_DATA\_1(J) of PER\_UP\_FILE into corresponding fields  
of O\_PER\_REC\_FILE.

Write O\_PER\_REC\_IN.

INS\_PER\_ROUTINE\_EXIT

exit.



DEL\_PER\_ROUTINE

Read PER\_REC\_FILE at end go to DEL\_PER\_ROUTINE\_EXIT.

if

ID\_NO\_4 = ID\_NO\_2

go to DEL\_PER\_ROUTINE

else

Move PER\_REC\_IN to O\_PER\_REC\_IN

Write O\_PER\_REC\_IN

go to DEL\_PER\_ROUTINE

DEL\_PER\_ROUTINE\_EXIT

exit

SAL\_ROUTINE

Read IN\_SALARIES\_FILE at end go to SAL\_ROUTINE\_EXIT.

if

CODE\_2 = "M"

then

Perform MOD\_SAL\_ROUTINE thru MOD\_SAL\_ROUTINE\_EXIT.

else

if

CODE\_2 = "I"

then

Perform INS\_SAL\_ROUTINE thru INS\_SAL\_ROUTINE\_EXIT.

else

if

CODE\_2 = "D"

then

Perform DEL\_PER\_ROUTINE thru DEL\_PER\_ROUTINE\_EXIT.

Perform OPEN\_TEMP thru CLOSE\_TEMP.

Go to SAL\_ROUTINE.

SAL-ROUTINE-EXIT

exit.

SAL-REC-INVERSION

Close IN\_SALARIES\_FILE, O\_IN\_SALARIES\_FILE

Open O\_IN\_SALARIES\_FILE as input file.

Open IN\_SALARIES\_FILE as output file.

Copy O\_IN\_SALARIES\_FILE data into corresponding IN\_SALARIES\_FILE fields.

Close all files other than updating files.

SAL\_REC\_INVERSION\_EXIT

exit.

MOD\_SAL\_ROUTINE

Read IN\_SALARIES\_FILE at end go to MOD\_SAL\_ROUTINE\_EXIT.

copy SALE\_REC into O\_SALE\_REC

if

ID\_NO\_5 = ID\_NO\_2

then

Initialize counter J to 0.

M\_S\_R\_START

Compute J = J + 1

if

J > TOT\_REC\_2

Write O\_SALE\_REC

Go to MOD\_SAL\_ROUTINE

else

Move RU\_DATA\_2(J) to either of OU\_BP,OU\_DA,OU\_ADA,

OU\_DE\_A,OU\_HRA,OU\_IR,OU\_ARREARS,OU\_CA,OU\_BONUS,OU\_MISCLS,

OU\_TSAL corresponding to whether RU\_NO\_2(J) is 1,2,3,4,5,6,7,8,9,  
10 or 11 respectively.

go to M\_S\_R\_START.

MODE\_SAL\_ROUTINE\_EXIT

exit.

INS\_SAL\_ROUTINE

Copy IN\_SALARIES\_FILE record into O\_IN\_SALARIES\_FILE.

Move ID\_NO\_5 to OU\_ID\_NO\_2

Move RU\_DATA\_2(J) of SAL\_UP\_FILE into corresponding fields of  
O\_IN\_SALARIES\_FILE.

Write O\_SALE\_REC.

INS\_SAL\_ROUTINE\_EXIT

exit.

DEL\_SAL\_ROUTINE

Read IN\_SALARIES\_FILE at end go to DEL\_SAL\_ROUTINE\_EXIT.

if

ID\_NO\_5 = ID\_NO\_2

go to DEL\_SAL\_ROUTINE

else

Move SALE\_REC to O\_SALE\_REC

Write O\_SALE\_REC

go to DEL\_SAL\_ROUTINE

DEL\_SAL\_ROUTINE\_EXIT

exit

REC\_ROUTINE

Read IN\_RECOVERY\_FILE at end go to REC\_ROUTINE\_EXIT.

```
if
CODE_3 = "M"
then
Perform MOD_REC_ROUTINE thru MOD_REC_ROUTINE_EXIT.
else
if
CODE_2 = "I"
then
Perform INS_REC_ROUTINE thru INS_REC_ROUTINE_EXIT.
else
if
CODE_3 = "D"
then
Perform DEL_REC_ROUTINE thru DEL_REC_ROUTINE_EXIT.
Perform OPEN_TEMP thru CLOSE_TEMP.
Go to REC_ROUTINE
```

REC-ROUTINE-EXIT

exit.

REC\_REC\_INVERSION

```
Close IN_RECOVER_FILE,O_IN_RECOVERY_FILE
Open O_IN_RECOVERY_FILE as input file
Open IN_RECOVERY_FILE as output file.
Copy O_IN_RECOVERY_FILE data into corresponding IN_RECOVERY_FILE
field.
Close all files other than updating files.
```

REC\_REC\_INVERSION\_EXIT

exit.

MOD\_REC\_ROUTINE

Read IN\_RECOVERY\_FILE at end go to MOD\_REC\_ROUTINE\_EXIT.

Copy RECOVERY\_REC into O\_RECOVERY\_REC

if

ID\_NO\_6 = ID\_NO\_3

then

Initialize counter J to 0.

M\_R\_R\_START

Compute J = J + 1

if

J > TOT\_REC\_3

Write O\_RECOVER\_REC

go to MOD\_REC\_ROUTINE

else

Move RU\_DATA\_3(J) to either of OU\_OPF,OU\_NPF,OU\_RFPA,

OU\_IT,OU\_GIS,OU\_GIS\_1,OU\_CGES,OU\_CADV,OU\_FBF,OU\_HR,OU\_MC,

OU\_EC,OU\_WG,OU\_OTHER,OU\_TREC corresponding to whether RU\_NO\_3(J)

is 1,2,3,4,5,6,7,8,9,10,11,12,13,14,or 15 respectively.

go to M\_R\_R\_START

MOD\_REC\_ROUTINE\_EXIT

exit.

INS\_REC\_ROUTINE

Copy IN\_RECOVERY\_FILE record into O\_IN\_RECOVERY\_FILE.

Move ID\_NO\_6 to OU\_ID\_NO\_3

Move RU\_DATA\_3(J) of SAL\_UP\_FILE into corresponding fields  
of O\_IN\_RECOVERY\_FILE  
Write O\_RECOVER\_REC .

INS\_REC\_ROUTINE\_EXIT

exit.

DEL\_REC\_ROUTINE

Read IN\_RECOVERY\_FILE at end go to DEL\_REC\_ROUTINE\_EXIT.

if

ID\_NO\_6 = ID\_NO\_J

go to DEL\_REC\_ROUTINE

else

Move RECOVER\_REC to O\_RECOVER\_REC

Write O\_RECOVER\_REC

go to DEL\_REC\_ROUTINE.

DEL\_REC\_ROUTINE\_EXIT

exit.

O\_IN\_SALARIES\_FILE and O\_IN\_RECOVERY FILE have also been taken which contain records identical to the master files.

After the programme is run, the master files get updated according to the information provided in updating files.

#### 4.0 THE PROGRAM

```
*****
**** ROUTINE FOR GENERATION OF SUMMARY SHEET OF ****
**** AMOUNT DUE OF EACH EMPLOYEE ****
*****
IDENTIFICATION DIVISION.
PROGRAM-ID. SALARY.
AUTHOR. MIS.
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. VAX-11.
OBJECT-COMPUTER. VAX-11.
INPUT-OUTPUT SECTION.
FILE-CONTROL.
    SELECT PER-REC-FILE ASSIGN TO "SYS#DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT IN-SALARIES-FILE ASSIGN TO "SYS#DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT IN-RECOVERY-FILE ASSIGN TO "SYS#DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT GROSS-PAY-FILE ASSIGN TO "SYS#DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT DIS-PAY-FILE ASSIGN TO "TT:".
    SELECT ACC-EPT-FILE ASSIGN TO "IT:".
DATA DIVISION.
FILE SECTION.
FD PER-REC-FILE
    LABEL RECORDS ARE STANDARD
    VALUE OF ID IS "PERSON.DAT"
    RECORD CONTAINS 43 CHARACTERS
    DATA RECORD IS PER-REC-IN.
01 PER-REC-IN.
    02 ID-NO-1 PIC X(5).
    02 NAME PIC X(20).
    02 DESGN PIC X(12).
    02 HOUSE-NO PIC X(6).
FD IN-SALARIES-FILE
    LABEL RECORDS ARE STANDARD
    VALUE OF ID IS "SALARY.DAT"
    RECORD CONTAINS 75 CHARACTERS
    DATA RECORD IS SALE-REC.
01 SALE-REC.
    02 ID-NO-2 PIC X(5).
    02 BP PIC 9(4)V9(2).
    02 DA PIC 9(4)V9(2).
    02 ADA PIC 9(4)V9(2).
    02 DE-A PIC 9(4)V9(2).
    02 HRA PIC 9(4)V9(2).
    02 IR1 PIC 9(4)V9(2).
    02 IR2 PIC 9(4)V9(2).
    02 WA PIC 9(4)V9(2).
    02 SP-PAY PIC 9(4)V9(2).
```

```

02      MISCL   PIC 9(4)V9(2).
02      TSAL   PIC 9(4)V9(2).
02      PFAC   PIC 9(4).
FD      IN-RECOVERY-FILE
        VALUE OF ID IS "RCOVER.DAT"
        LABEL RECORDS ARE STANDARD
        RECORD CONTAINS 95 CHARACTERS
        DATA RECORD IS RECOVER-REC.
01      RECOVER-REC.
02      ID-NO-3 PIC X(5).
02      OFF    PIC 9(4)V9(2).
02      NPF    PIC 9(4)V9(2).
02      RFFA   PIC 9(4)V9(2).
02      IT     PIC 9(4)V9(2).
02      GIS    PIC 9(4)V9(2).
02      GIS-1  PIC 9(4)V9(2).
02      CGES   PIC 9(4)V9(2).
02      CADV   PIC 9(4)V9(2).
02      FES-AD PIC 9(4)V9(2).
02      FAN-AD PIC 9(4)V9(2).
02      HR     PIC 9(4)V9(2).
02      EC     PIC 9(4)V9(2).
02      FBF    PIC 9(4)V9(2).
02      CLUB   PIC 9(4)V9(2).
02      OTHER  PIC 9(4)V9(2).
FD      GROSS-PAY-FILE
        VALUE OF ID IS "GROSSP.DAT"
        LABEL RECORDS ARE STANDARD
        DATA RECORDS ARE LINE-1,LINE-2,LINE-3.
01      LINE-1 PIC X(132).
01      LINE-2.
02      SNO    PIC Z(3).
02      FILLER PIC X(3).
02      ACNO   PIC Z(5).
02      FILLER PIC X(1).
02      NA-ME  PIC X(20).
02      DES-GN PIC X(12).
02      FILLER PIC X(1).
02      PAY    PIC Z(4).Z(2).
02      FILLER PIC X(1).
02      DE-AL  PIC Z(4).Z(2).
02      FILLER PIC X(2).
02      ADE-AL PIC Z(4).Z(2).
02      FILLER PIC X(1).
02      DP-ALL PIC Z(4).Z(2).
02      HRAL   PIC Z(4).Z(2).
02      FILLER PIC X(1).
02      ITR1   PIC Z(4).Z(2).
02      FILLER PIC X(1).
02      ITR2   PIC Z(4).Z(2).
02      WAL    PIC Z(4).Z(2).
02      SF-PY  PIC Z(4).Z(2).
02      FILLER PIC X(1).
02      MISC   PIC Z(4).Z(2).
02      FILLER PIC X(2).

```



```

01      02      TUTSAL PIC Z(4),Z(2).
        LINE-3.
        02      FILLER PIC X(15).
        02      TNAME PIC X(5).
        02      FILLER PIC X(24).
        02      TPAY PIC Z(5),Z(2).
        02      TDA PIC Z(5),Z(2).
        02      FILLER PIC X(1).
        02      TADA PIC Z(5),Z(2).
        02      FILLER PIC X(1).
        02      TDPAL PIC Z(4),Z(2).
        02      THRA PIC Z(4),Z(2).
        02      FILLER PIC X(1).
        02      TITR1 PIC Z(4),Z(2).
        02      FILLER PIC X(1).
        02      TITR2 PIC Z(4),Z(2).
        02      TWAL PIC Z(4),Z(2).
        02      TSPPAY PIC Z(4),Z(2).
        02      FILLER PIC X(1).
        02      TMISC PIC Z(4),Z(2).
        02      FILLER PIC X(1).
        02      TTOTAL PIC Z(5),Z(2).
FD      DIS-PY-FILE
        LABEL RECORDS ARE OMITTED.
01      DIS-PY          PIC X(132).
FD      ACC-EPT-FILE
        LABEL RECORDS ARE OMITTED.
01      ACC-EPT          PIC X(10).
WORKING-STORAGE SECTION.
01      HED-1.
        02      FILLER PIC X(35) VALUE SPACES.
        02      HD-1 PIC X(43) VALUE
        *SALARY BILL NO: O/N,I,H. FOR THE MONTH OF *.
        02      HD-11 PIC X(10).
01      HED-2.
        02      FILLER PIC X(45) VALUE SPACES.
        02      HD-2 PIC X(28) VALUE
        *GROSS PAY OF N.I.H. EMPLOYEES*.
01      HED-3.
        02      FILLER PIC X(45) VALUE SPACES.
        02      HD-3 PIC X(28) VALUE ALL "--".
01      HED-4.
        02      HD-4 PIC X(132) VALUE ALL "--".
01      HED-5.
        02      HD-51 PIC X(5) VALUE "S.NO.".
        02      FILLER PIC X(1) VALUE SPACES.
        02      HD-52 PIC X(5) VALUE "AC/NO".
        02      FILLER PIC X(1) VALUE SPACES.
        02      HD-53 PIC X(16) VALUE "NAME OF EMPLOYEE".
        02      FILLER PIC X(4) VALUE SPACES.
        02      HD-54 PIC X(11) VALUE "DESIGNATION".
        02      FILLER PIC X(2) VALUE SPACES.
        02      HD-55 PIC X(9) VALUE "BASIC-PAY".
        02      FILLER PIC X(2) VALUE SPACES.
        02      HD-56 PIC X(3) VALUE "D.A".

```

```

02 FILLER PIC X(4) VALUE SPACES.
02 HD-57 PIC X(5) VALUE "A.D.A.".
02 FILLER PIC X(3) VALUE SPACES.
02 HD-58 PIC X(7) VALUE "DEF.ALL".
02 FILLER PIC X(2) VALUE SPACES.
02 HD-59 PIC X(3) VALUE "HRA".
02 FILLER PIC X(3) VALUE SPACES.
02 HD-551 PIC X(6) VALUE "IT.RL1".
02 FILLER PIC X(2) VALUE SPACES.
02 HD-552 PIC X(6) VALUE "IT.RL2".
02 FILLER PIC X(3) VALUE SPACES.
02 HD-553 PIC X(3) VALUE "W.A.".
02 FILLER PIC X(2) VALUE SPACES.
02 HD-554 PIC X(6) VALUE "SP-PAY".
02 FILLER PIC X(3) VALUE SPACES.
02 HD-555 PIC X(4) VALUE "MISC".
02 FILLER PIC X(4) VALUE SPACES.
02 HD-556 PIC X(5) VALUE "TOTAL".
01 TOT-NAME PIC X(5) VALUE "TOTAL".
01 TOT-BP PIC 9(5)V9(2) VALUE 0.
01 TOT-DA PIC 9(5)V9(2) VALUE 0.
01 TOT-ADA PIC 9(5)V9(2) VALUE 0.
01 TOT-DFAL PIC 9(4)V9(2) VALUE 0.
01 TOT-HRA PIC 9(4)V9(2) VALUE 0.
01 TOT-ITR1 PIC 9(4)V9(2) VALUE 0.
01 TOT-ITR2 PIC 9(4)V9(2) VALUE 0.
01 TOT-WA PIC 9(4)V9(2) VALUE 0.
01 TOT-SPPAY PIC 9(4)V9(2) VALUE 0.
01 TOT-MISC PIC 9(4)V9(2) VALUE 0.
01 TOT-TOTALSAL PIC 9(5)V9(2) VALUE 0.
01 GROSAL PIC 9(4)V9(2).
01 CO-UNT PIC 9(3) VALUE 0.
77 MONTH PIC X(10).

```

PROCEDURE DIVISION.  
FILE-OPENING.

```

OPEN INPUT PER-REC-FILE,IN-SALARIES-FILE,
IN-RECOVERY-FILE,ACC-EPT-FILE,
OUTPUT GROSS-PAY-FILE,DIS-PLAY-FILE.
MOVE SPACES TO DIS-PLAY.
MOVE "PL. GIVE CURRENT MONTH AS MMM' YY" TO DIS-PLAY.
WRITE DIS-PLAY.
READ ACC-EPT-FILE AT END GO TO ST-ART.

```

ST-ART.

```

MOVE ACC-EPT TO MONTH.
MOVE MONTH TO HD-11.
WRITE LINE-1 FROM HED-1.
MOVE SPACES TO LINE-1.
WRITE LINE-1 FROM HED-2.
MOVE SPACES TO LINE-1.
WRITE LINE-1 FROM HED-3.
MOVE SPACES TO LINE-1.
WRITE LINE-1 FROM HED-4.
MOVE SPACES TO LINE-1.
WRITE LINE-1 FROM HED-5.
MOVE SPACES TO LINE-1.

```

```

        WRITE LINE-1 FROM HED-4.
        MOVE SPACES TO LINE-1.
INT1.
        READ PER-REC-FILE AT END GO TO INTT1.
INTT1.
        READ IN-SALARIES-FILE AT END GO TO NEXT-READ.
NEXT-READ.
        READ IN-RECOVERY-FILE AT END GO TO CLOSE-FILES.
        PERFORM RETRIEVAL-ROUTINE THRU RET-EXIT.
        GO TO INT1.
RETRIEVAL-ROUTINE.
        COMPUTE GROSAL = BP + DA + ADA + DE-A + HRA + IR1 + IR2.
        COMPUTE GROSAL = GROSAL + WA + SP-PAY + MISCL.
        MOVE SPACES TO LINE-2.
        ADD 1 TO CO-UNT.
        ADD BP TO TOT-BP.
        ADD DA TO TOT-DA.
        ADD ADA TO TOT-ADA.
        ADD DE-A TO TOT-DPAL.
        ADD HRA TO TOT-HRA.
        ADD IR1 TO TOT-ITR1.
        ADD IR2 TO TOT-ITR2.
        ADD WA TO TOT-WA.
        ADD SP-PAY TO TOT-SPPAY.
        ADD MISCL TO TOT-MISCL.
        ADD GROSAL TO TOT-TOTSAL.
        MOVE CO-UNT TO SNO.
        MOVE ID-NO-1 TO ACNO.
        MOVE NAME TO NA-ME.
        MOVE DESGN TO DES-GN.
        MOVE BP TO PAY.
        MOVE DA TO DE-AL.
        MOVE ADA TO ADE-AL.
        MOVE DE-A TO DP-ALL.
        MOVE HRA TO HRAL.
        MOVE IR1 TO ITR1.
        MOVE IR2 TO ITR2.
        MOVE WA TO WAL.
        MOVE SP-PAY TO SP-PY.
        MOVE MISCL TO MISC.
        MOVE GROSAL TO TOTSAL.
        MOVE TOTSAL TO DIS-PLAY.
        WRITE LINE-2.
        WRITE LINE-1 FROM HED-4.
RET-EXIT.
        EXIT.
CLOSE-FILES.
        MOVE SPACES TO LINE-3.
        MOVE TOT-NAME TO TNAME.
        MOVE TOT-BP TO TPAY.
        MOVE TOT-DA TO TDA.
        MOVE TOT-ADA TO TADA.
        MOVE TOT-DPAL TO TDPAL.
        MOVE TOT-HRA TO THRA.
        MOVE TOT-ITR1 TO TITR1.

```

MOVE TOT-ITR2 TO TITR2.  
MOVE TOT-WA TO TWAL.  
MOVE TOT-SPPAY TO TSPPAY.  
MOVE TOT-MISC TO TMISC.  
MOVE TOT-TOTSAL TO TTOTSAL.  
WRITE LINE-3.  
MOVE SPACES TO LINE-1.  
WRITE LINE-1 FROM HED-4.  
CLOSE PER-REC-FILE,IN-SALARIES-FILE,IN-RECOVERY-FILE,  
DIS-PAY-FILE,ACC-EPT-FILE,GROSS-PAY-FILE.  
STOP RUN.

\*\*\*\*\*  
\*\*\*\* ROUTINE FOR GENERATION OF GROSSPAY SHEET, CLUB \*\*\*\*  
\*\*\*\* SUBSCRIPTION SHEET , PROVIDENT FUND SCHEDULE \*\*\*\*  
\*\*\*\* INSURANCE SHEET AND HRA DEDUCTION SHEET \*\*\*\*  
\*\*\*\*\*

IDENTIFICATION DIVISION,  
PROGRAM-ID. SALARY.  
AUTHOR. MIS.  
ENVIRONMENT DIVISION.  
CONFIGURATION SECTION.  
SOURCE-COMPUTER. VAX-11.  
OBJECT-COMPUTER. VAX-11.  
INPUT-OUTPUT SECTION.  
FILE-CONTROL.

SELECT PER-REC-FILE ASSIGN TO "SYS\$DISK:"  
RESERVE 2 AREAS  
ACCESS MODE IS SEQUENTIAL.  
SELECT IN-SALARIES-FILE ASSIGN TO "SYS\$DISK:"  
RESERVE 2 AREAS  
ACCESS MODE IS SEQUENTIAL;  
SELECT IN-RECOVERY-FILE ASSIGN TO "SYS\$DISK:"  
RESERVE 2 AREAS  
ACCESS MODE IS SEQUENTIAL.  
SELECT PROV-FUND-FILE ASSIGN TO "SYS\$DISK:"  
RESERVE 2 AREAS  
ACCESS MODE IS SEQUENTIAL.  
SELECT ACC-FILE ASSIGN TO "SYS\$DISK:"  
RESERVE 2 AREAS  
ACCESS MODE IS SEQUENTIAL.  
SELECT HRA-FILE ASSIGN TO "SYS\$DISK:"  
RESERVE 2 AREAS  
ACCESS MODE IS SEQUENTIAL.  
SELECT INS-FILE ASSIGN TO "SYS\$DISK:"  
RESERVE 2 AREAS  
ACCESS MODE IS SEQUENTIAL.  
SELECT CLUB-FILE ASSIGN TO "SYS\$DISK:"  
RESERVE 2 AREAS  
ACCESS MODE IS SEQUENTIAL.  
SELECT DIS-PY-FILE ASSIGN TO "TT:"  
SELECT ACC-EPJ-FILE ASSIGN TO "TT:".

DATA DIVISION,  
FILE SECTION.

FD PER-REC-FILE  
LABEL RECORDS ARE STANDARD  
VALUE OF ID IS "PERSON.DAT"  
RECORD CONTAINS 43 CHARACTERS  
DATA RECORD IS PER-REC-IN.  
01 PER-REC-IN.  
02 ID-NO-1 PIC X(5).  
02 NAME PIC X(20).  
02 DESGN PIC X(12).  
02 HOUSE-NO PIC X(6).  
FD IN-SALARIES-FILE  
LABEL RECORDS ARE STANDARD  
VALUE OF ID IS "SALARY.DAT"

RECORD CONTAINS 75 CHARACTERS  
DATA RECORD IS SALE-REC.

01 SALE-REC.

02 ID-NO-2 PIC X(5).  
02 BP PIC 9(4)V9(2).  
02 DA PIC 9(4)V9(2).  
02 ADA PIC 9(4)V9(2).  
02 DE-A PIC 9(4)V9(2).  
02 HRA PIC 9(4)V9(2).  
02 IR1 PIC 9(4)V9(2).  
02 IR2 PIC 9(4)V9(2).  
02 WA PIC 9(4)V9(2).  
02 SP-PAY PIC 9(4)V9(2).  
02 MISCL PIC 9(4)V9(2).  
02 TSAL PIC 9(4)V9(2).  
02 PFAC PIC 9(4).

FD IN-RECOVERY-FILE  
VALUE OF ID IS 'RCOVER.DAT'  
LABEL RECORDS ARE STANDARD  
RECORD CONTAINS 95 CHARACTERS  
DATA RECORD IS RECOVER-REC.

01 RECOVER-REC.

02 ID-NO-3 PIC X(5).  
02 OFF PIC 9(4)V9(2).  
02 NPF PIC 9(4)V9(2).  
02 RFFA PIC 9(4)V9(2).  
02 IT PIC 9(4)V9(2).  
02 GIS PIC 9(4)V9(2).  
02 GIS-1 PIC 9(4)V9(2).  
02 CGES PIC 9(4)V9(2).  
02 CADV PIC 9(4)V9(2).  
02 FES-AD PIC 9(4)V9(2).  
02 FAN-AD PIC 9(4)V9(2).  
02 HR PIC 9(4)V9(2).  
02 EC PIC 9(4)V9(2).  
02 FBF PIC 9(4)V9(2).  
02 CLUB PIC 9(4)V9(2).  
02 OTHER PIC 9(4)V9(2).

FD PROV-FUND-FILE  
VALUE OF ID IS 'PROFND.DAT'  
LABEL RECORDS ARE STANDARD  
DATA RECORDS ARE PRFD-1,PRFD-2,PRFD-3.

01 PRFD-1 PIC X(132).  
01 PRFD-2.

02 SN01 PIC Z(3).  
02 FILLER PIC X(10).  
02 CPFNO PIC Z(4).  
02 FILLER PIC X(6).  
02 NAME1 PIC X(20).  
02 FILLER PIC X(2).  
02 DESG1 PIC X(12).  
02 FILLER PIC X(3).  
02 PF-PAY PIC Z(4).Z(2).  
02 FILLER PIC X(4).  
02 PF-SUB PIC Z(4).Z(2).

```

02          FILLER PIC  X(8),
02          PF-PFAD PIC Z(4),Z(2),
02          FILLER  PIC X(10),
02          PF-TOT  PIC Z(4),Z(2),
01 PRFD-3,
02          FILLER PIC X(23),
02          PF-NAME PIC X(5),
02          FILLER PIC X(74),
02          TOT-PF  PIC Z(5),Z(2),
FD ACC-FILE
VALUE OF ID IS 'ACOUNT.DAT'
LABEL RECORDS ARE STANDARD
DATA RECORDS ARE AC-1,AC-2,AC-3,
01 AC-1  PIC X(132),
01 AC-2,
02          FILLER PIC X(4),
02          SN02  PIC Z(3),
02          FILLER PIC X(10),
02          NAME2 PIC X(20),
02          FILLER PIC X(25),
02          SBAC  PIC Z(5),
02          FILLER PIC X(20),
02          AC-TOT PIC Z(4),Z(2),
01 AC-3,
02          FILLER PIC X(17),
02          AC-NAME PIC X(5),
02          FILLER PIC X(64),
02          TOT-AC PIC Z(5),Z(2),
FD INS-FILE
VALUE OF ID IS 'INSNCE.DAT'
LABEL RECORDS ARE STANDARD
DATA RECORDS ARE INS-1,INS-2,INS-3.
01 INS-1 PIC X(132),
01 INS-2,
02          FILLER PIC X(4),
02          SN03  PIC Z(3),
02          FILLER PIC X(10),
02          NAME3 PIC X(20),
02          FILLER PIC X(25),
02          SBACN PIC Z(5),
02          FILLER PIC X(20),
02          GRINS PIC Z(4),Z(2),
01 INS-3,
02          FILLER PIC X(17),
02          INS-NAME PIC X(5),
02          FILLER  PIC X(64),
02          TOT-INS PIC Z(5),Z(2),

FD CLUB-FILE
VALUE OF ID IS 'CLUBSC.DAT'
LABEL RECORDS ARE STANDARD
DATA RECORDS ARE CL-1,CL-2,CL-3,
01 CL-1  PIC X(132),
01 CL-2,
02          FILLER PIC X(5),

```

```

02      SN04   PIC Z(3),
02      FILLER PIC X(10),
02      NAME4  PIC X(20),
02      FILLER PIC X(25),
02      CL-DED PIC Z(4),Z(2),
01      CL-3.,
02      FILLER PIC X(18),
02      CL-NAME PIC X(5),
02      FILLER PIC X(40),
02      TOT-CL PIC Z(4),Z(2),
FD      HRA-FILE
VALUE OF ID IS "HRADED.DAT"
LABEL RECORDS ARE STANDARD
DATA RECORDS ARE HRA-1,HRA-2,HRA-3.
01      HRA-1  PIC X(132),
01      HRA-2.,
02      FILLER PIC X(3),
02      SN05   PIC Z(3),
02      FILLER PIC X(5),
02      H-NO   PIC X(10),
02      FILLER PIC X(7),
02      NAMES  PIC X(20),
02      FILLER PIC X(10),
02      HRA-RENT PIC Z(4),Z(2),
02      FILLER PIC X(14),
02      HRA-EC  PIC Z(4),Z(2),
01      HRA-3.,
02      FILLER PIC X(28),
02      HRA-NAME PIC X(5),
02      FILLER PIC X(25),
02      TOT-TRENT PIC Z(4),Z(2),
02      FILLER PIC X(14),
02      TOT-TEC PIC Z(4),Z(2),
FD      DIS-PLAY-FILE
LABEL RECORDS ARE OMITTED.
01      DIS-PLAY      PIC X(80),
FD      ACC-EPT-FILE
LABEL RECORDS ARE OMITTED.
01      ACC-EPT      PIC X(10),
WORKING-STORAGE SECTION.
01      HED-1  PIC X(132) VALUE ALL "-".
01      PFHD-1.,
02      FILLER PIC X(40) VALUE SPACES.
02      PF-1   PIC X(42) VALUE
"SCHEDULE OF PROVIDENT FUND DEDUCTION FOR".
02      PF-2   PIC X(10),
01      PFHD-2.,
02      FILLER PIC X(40) VALUE SPACES.
02      PF-3   PIC X(50) VALUE ALL "-".
01      PFHD-3.,
02      PF-4   PIC X(4) VALUE "S.NO".
02      FILLER PIC X(6) VALUE SPACES.
02      PF-5   PIC X(8) VALUE "PF.AC.NO.".
02      FILLER PIC X(5) VALUE SPACES.
02      PF-6   PIC X(16) VALUE "NAME OF EMPLOYEE"

```



```

02 FILLER PIC X(6) VALUE SPACES.
02 PF-7 PIC X(11) VALUE "DESIGNATION".
02 FILLER PIC X(6) VALUE SPACES.
02 PF-8 PIC X(3) VALUE "PAY".
02 FILLER PIC X(6) VALUE SPACES.
02 PF-9 PIC X(8) VALUE "PF SUBS.".
02 FILLER PIC X(5) VALUE SPACES.
02 PF-10 PIC X(10) VALUE "PF ADVANCE".
02 FILLER PIC X(10) VALUE SPACES.
02 PF-11 PIC X(5) VALUE "TOTAL".
01 ACHD-1.
02 FILLER PIC X(4) VALUE SPACES.
02 ACH-1 PIC X(4) VALUE "S.NO".
02 FILLER PIC X(12) VALUE SPACES.
02 ACH-2 PIC X(4) VALUE "NAME".
02 FILLER PIC X(36) VALUE SPACES.
02 ACH-3 PIC X(10) VALUE "SB.A/C NO.".
02 FILLER PIC X(16) VALUE SPACES.
02 ACH-4 PIC X(10) VALUE "NET AMOUNT".
01 INSHD-1.
02 FILLER PIC X(4) VALUE SPACES.
02 INSD-1 PIC X(4) VALUE "S.NO".
02 FILLER PIC X(12) VALUE SPACES.
02 INSD-2 PIC X(4) VALUE "NAME".
02 FILLER PIC X(36) VALUE SPACES.
02 INSD-3 PIC X(10) VALUE "SB.A/C NO.".
02 FILLER PIC X(18) VALUE SPACES.
02 INSD-4 PIC X(6) VALUE "GR.INS.".
01 CLHD-1.
02 FILLER PIC X(5) VALUE SPACES.
02 CLD-1 PIC X(4) VALUE "S.NO".
02 FILLER PIC X(10) VALUE SPACES.
02 CLD-2 PIC X(4) VALUE "NAME".
02 FILLER PIC X(40) VALUE SPACES.
02 CLD-3 PIC X(10) VALUE "CLUB SUBS.".
01 HRAHD-1.
02 FILLER PIC X(2) VALUE SPACES.
02 HRAD-1 PIC X(4) VALUE "S.NO".
02 FILLER PIC X(5) VALUE SPACES.
02 HRAD-2 PIC X(9) VALUE "HOUSE NO.".
02 FILLER PIC X(10) VALUE SPACES.
02 HRAD-3 PIC X(4) VALUE "NAME".
02 FILLER PIC X(23) VALUE SPACES.
02 HRAD-4 PIC X(10) VALUE "HOUSE RENT".
02 FILLER PIC X(10) VALUE SPACES.
02 HRAD-4 PIC X(10) VALUE "EL.CHARGES".
01 FFTOT PIC 9(4)V9(2).
01 GROSAL PIC 9(4)V9(2).
01 TOTDED PIC 9(4)V9(2).
01 NET-AMT PIC 9(4)V9(2).
01 CO-UNT PIC 999 VALUE 0.
01 CO-UNT2 PIC 999 VALUE 0.
01 CO-UNT3 PIC 999 VALUE 0.
01 CO-UNT4 PIC 999 VALUE 0.
01 TNAME PIC X(5) VALUE "TOTAL".

```

01 PF-TOTAL PIC 9(5)V9(2) VALUE 0.  
01 AC-TOTAL PIC 9(5)V9(2) VALUE 0.  
01 INS-TOTAL PIC 9(5)V9(2) VALUE 0.  
01 CL-TOTAL PIC 9(4)V9(2) VALUE 0.  
01 HRA-TRENT PIC 9(4)V9(2) VALUE 0.  
01 HRA-TEC PIC 9(4)V9(2) VALUE 0.  
77 MONTH PIC X(10).

PROCEDURE DIVISION.

FILE-OPENING.

OPEN INPUT PER-REC-FILE,IN-SALARIES-FILE,  
IN-RECOVERY-FILE,ACC-EPT-FILE,  
OUTPUT INS-FILE,ACC-FILE,CLUB-FILE,HRA-FILE,  
PROV-FUND-FILE,DIS-PLAY-FILE.  
MOVE SPACES TO DIS-PLAY.  
MOVE "PL.GIVE CURRENT MONTH AS MMMM YY" TO DIS-PLAY.  
WRITE DIS-PLAY.  
READ ACC-EPT-FILE AT END GO TO ST-ART.

ST-ART.

MOVE ACC-EPT TO MONTH.  
MOVE MONTH TO PF-2.  
WRITE PRFD-1 FROM PFHD-1.  
MOVE SPACES TO PRFD-1.  
WRITE PRFD-1 FROM PFHD-2.  
MOVE SPACES TO PRFD-1.  
WRITE PRFD-1 FROM HED-1.  
MOVE SPACES TO PRFD-1.  
WRITE PRFD-1 FROM PFHD-3.  
MOVE SPACES TO PRFD-1.  
WRITE PRFD-1 FROM HED-1.  
MOVE SPACES TO PRFD-1.  
WRITE AC-1 FROM HED-1.  
MOVE SPACES TO AC-1.  
WRITE AC-1 FROM ACHD-1.  
MOVE SPACES TO AC-1.  
WRITE AC-1 FROM HED-1.  
MOVE SPACES TO AC-1.  
WRITE CL-1 FROM HED-1.  
MOVE SPACES TO CL-1.  
WRITE CL-1 FROM CLHD-1.  
MOVE SPACES TO CL-1.  
WRITE CL-1 FROM HED-1.  
MOVE SPACES TO CL-1.  
WRITE INS-1 FROM HED-1.  
MOVE SPACES TO INS-1.  
WRITE INS-1 FROM INSHD-1.  
MOVE SPACES TO INS-1.  
WRITE INS-1 FROM HED-1.  
MOVE SPACES TO INS-1.  
WRITE HRA-1 FROM HED-1.  
MOVE SPACES TO HRA-1.  
WRITE HRA-1 FROM HRAHD-1.  
MOVE SPACES TO HRA-1.  
WRITE HRA-1 FROM HED-1.  
MOVE SPACES TO HRA-1.

INT1.

```

      READ PER-REC-FILE AT END GO TO INT2.
INT2.  READ IN-SALARIES-FILE AT END GO TO INT3.
INT3.  READ IN-RECOVERY-FILE AT END GO TO CLOSE-FILES.
      PERFORM RET-ROUTINE THRU RET-EXIT.
      GO TO INT1.
RET-ROUTINE.
      COMPUTE PFTOT = NPF + RPPA.
      COMPUTE GROSAL = BP + DA + ADA + DE-A + HRA + IR1 + IR2.
      COMPUTE GROSAL = GROSAL + WA + SP-PAY + MISCL.
      COMPUTE TOTDED = OPF + NPF + RPPA + IT + GIS + GIS-1.
      COMPUTE TOTDED = TOTDED + CGES + CADV + FBF + HR + EC.
      COMPUTE TOTDED = TOTDED + FES-AD + CLUB + OTHER + FAN-AD.
      COMPUTE NET-AMT = GROSAL - TOTDED.
      MOVE SPACES TO PRFD-2.
      MOVE SPACES TO AC-2.
      MOVE SPACES TO INS-2.
      MOVE SPACES TO CL-2.
      MOVE SPACES TO HRA-2.
      ADD 1 TO CO-UNT.
      ADD NET-AMT TO AC-TOTAL.
      ADD CLUB TO CL-TOTAL.
      MOVE CO-UNT TO SN02,SN04.
      MOVE NAME TO NAME2,NAME4.
      MOVE ID-NO-1 TO SBAC.
      MOVE NET-AMT TO AC-TOT.
      WRITE AC-2.
      WRITE AC-1 FROM HED-1.
      MOVE CLUB TO CL-DED.
      WRITE CL-2.
      WRITE CL-1 FROM HED-1.
PF-ROUTINE.
      IF NPF = 0 GO TO INS-ROUTINE.
      ADD PFTOT TO PF-TOTAL.
      ADD 1 TO CO-UNT2.
      MOVE PFAC TO CPFNO.
      MOVE CO-UNT2 TO SN01.
      MOVE NAME TO NAME1.
      MOVE DESGN TO DESG1.
      MOVE BP TO PF-PAY.
      MOVE NPF TO PF-SUB.
      MOVE RPPA TO PF-PFAD.
      MOVE PFTOT TO PF-TOT.
      WRITE PRFD-2.
      WRITE PRFD-1 FROM HED-1.
INS-ROUTINE.
      IF GIS = 0 GO TO HRA-ROUTINE.
      ADD 1 TO CO-UNT3.
      MOVE CO-UNT3 TO SN03.
      MOVE NAME TO NAME3.
      MOVE ID-NO-1 TO SBACN.
      ADD GIS TO INS-TOTAL.
      MOVE GIS TO GRINS.
      WRITE INS-2.

```

```

        WRITE INS-1 FROM HED-1.
HRA-ROUTINE.
        JF HR = 0 GO TO RET-EXIT.
        ADD 1 TO CO-UNT4.
        MOVE CO-UNT4 TO SN05.
        MOVE NAME TO NAME5.
        ADD HR TO HRA-TRENT.
        ADD EC TO HRA-TEC.
        MOVE HOUSE-NO TO H-NO.
        MOVE HR TO HRA-RENT.
        MOVE EC TO HRA-EC.
        WRITE HRA-2.
        WRITE HRA-1 FROM HED-1.
RET-EXIT.
        EXIT.
CLOSE-FILES.
        MOVE SPACES TO PRFD-3,AC-3,INS-3,CL-3,HRA-3.
        MOVE PF-TOTAL TO TOT-PF.
        MOVE AC-TOTAL TO TOT-AC.
        MOVE INS-TOTAL TO TOT-INS.
        MOVE CL-TOTAL TO TOT-CL.
        MOVE HRA-TRENT TO TOT-TRENT.
        MOVE HRA-TEC TO TOT-TEC.
        MOVE TNAME TO PF-NAME,AC-NAME,INS-NAME,CL-NAME,HRA-NAME.
        WRITE PRFD-3.
        WRITE AC-3.
        WRITE INS-3.
        WRITE CL-3.
        WRITE HRA-3.
        WRITE PRFD-1 FROM HED-1.
        WRITE AC-1 FROM HED-1.
        WRITE INS-1 FROM HED-1.
        WRITE CL-1 FROM HED-1.
        WRITE HRA-1 FROM HED-1.
        CLOSE PER-REC-FILE,IN-SALARIES-FILE,IN-RECOVERY-FILE,
        DIS-PLAY-FILE,ACC-EPT-FILE,PROV-FUND-FILE,ACC-FILE,
        INS-FILE,CLUB-FILE,HRA-FILE.
        STOP RUN.

```

```

*****
**** ROUTINE FOR GENERATION OF DEDUCTION SHEET OF ****
**** EMPLOYEES ****
*****

```

```

IDENTIFICATION DIVISION.
PROGRAM-ID. SALARY.
AUTHOR. MIS.
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. VAX-11.
OBJECT-COMPUTER. VAX-11.
INPUT-OUTPUT SECTION.
FILE-CONTROL.

```

```

        SELECT PER-REC-FILE ASSIGN TO "SYS$DISK:"
        RESERVE 2 AREAS
        ACCESS MODE IS SEQUENTIAL.
        SELECT IN-SALARIES-FILE ASSIGN TO "SYS$DISK:"
        RESERVE 2 AREAS
        ACCESS MODE IS SEQUENTIAL.
        SELECT IN-RECOVERY-FILE ASSIGN TO "SYS$DISK:"
        RESERVE 2 AREAS
        ACCESS MODE IS SEQUENTIAL.
        SELECT DED-PAY-FILE ASSIGN TO "SYS$DISK:"
        RESERVE 2 AREAS
        ACCESS MODE IS SEQUENTIAL.
        SELECT DIS-PLAY-FILE ASSIGN TO "TT:".
        SELECT ACC-EPT-FILE ASSIGN TO "TT:".

```

```

DATA DIVISION.
FILE SECTION.

```

```

FD      PER-REC-FILE
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "PERSON.DAT"
        RECORD CONTAINS 43 CHARACTERS
        DATA RECORD IS PER-REC-IN.
01      PER-REC-IN.
        02      ID-NO-1      PIC X(5).
        02      NAME          PIC X(20).
        02      DESGN      PIC X(12).
        02      HOUSE-NO    PIC X(6).
FD      IN-SALARIES-FILE
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "SALARY.DAT"
        RECORD CONTAINS 75 CHARACTERS
        DATA RECORD IS SALE-REC.
01      SALE-REC.
        02      ID-NO-2    PIC X(5).
        02      BP          PIC 9(4)V9(2).
        02      DA          PIC 9(4)V9(2).
        02      ADA         PIC 9(4)V9(2).
        02      DE-A        PIC 9(4)V9(2).
        02      HRA         PIC 9(4)V9(2).
        02      IR1         PIC 9(4)V9(2).
        02      IR2         PIC 9(4)V9(2).
        02      WA          PIC 9(4)V9(2).
        02      SP-PAY      PIC 9(4)V9(2).

```

```

02 MISCL PIC 9(4)V9(2).
02 TSAL PIC 9(4)V9(2).
02 PFAC PIC 9(4).
FD IN-RECOVERY-FILE
VALUE OF ID IS "RCOVER.DAT"
LABEL RECORDS ARE STANDARD
RECORD CONTAINS 95 CHARACTERS
DATA RECORD IS RECOVER-REC.
01 RECOVER-REC.
02 ID-NO-3 PIC X(5).
02 OPF PIC 9(4)V9(2).
02 NPF PIC 9(4)V9(2).
02 RFFA PIC 9(4)V9(2).
02 IT PIC 9(4)V9(2).
02 GIS PIC 9(4)V9(2).
02 GIS-1 PIC 9(4)V9(2).
02 CGES PIC 9(4)V9(2).
02 CADV PIC 9(4)V9(2).
02 FES-AD PIC 9(4)V9(2).
02 FAN-AD PIC 9(4)V9(2).
02 HR PIC 9(4)V9(2).
02 EC PIC 9(4)V9(2).
02 FBF PIC 9(4)V9(2).
02 CLUB PIC 9(4)V9(2).
02 OTHER PIC 9(4)V9(2).
FD DED-PAY-FILE
VALUE OF ID IS "DEDCTN.DAT"
LABEL RECORDS ARE STANDARD
DATA RECORDS ARE LINE-1,LINE-2,LINE-3.
01 LINE-1 PIC X(132).
01 LINE-2.
02 SNO PIC Z(3).
02 FILLER PIC X(1).
02 CPFNO PIC Z(4).
02 PF1 PIC Z(4).Z(2).
02 PF2 PIC Z(4).Z(2).
02 PFAD PIC Z(4).Z(2).
02 I-TAX PIC Z(4).Z(2).
02 GIS1 PIC Z(4).Z(2).
02 GIS2 PIC Z(4).Z(2).
02 GIS3 PIC Z(4).Z(2).
02 CONAD PIC Z(4).Z(2).
02 FESAD PIC Z(4).Z(2).
02 FAN-ADV PIC Z(4).Z(2).
02 HRENT PIC Z(4).Z(2).
02 E-W-CH PIC Z(4).Z(2).
02 F-BF PIC Z(4).Z(2).
02 CL-UB PIC Z(4).Z(2).
02 OT-HER PIC Z(4).Z(2).
02 FILLER PIC X(2).
02 DED PIC Z(4).Z(2).
02 FILLER PIC X(3).
02 NETAMT PIC Z(4).Z(2).
01 LINE-3.
02 FILLER PIC X(2).

```

```

02      TNAME  PIC X(5).
02      FILLER PIC X(1).
02      TOPF   PIC Z(4).Z(2).
02      TNPF   PIC Z(4).Z(2).
02      TPFAD  PIC Z(4).Z(2).
02      TIT    PIC Z(4).Z(2).
02      TGIS1  PIC Z(4).Z(2).
02      TGIS2  PIC Z(4).Z(2).
02      TGIS3  PIC Z(4).Z(2).
02      TCONAD PIC Z(4).Z(2).
02      TFESAD PIC Z(4).Z(2).
02      TFANAD PIC Z(4).Z(2).
02      THRENT PIC Z(4).Z(2).
02      TEC    PIC Z(4).Z(2).
02      TFBF   PIC Z(4).Z(2).
02      TCLUB  PIC Z(4).Z(2).
02      TOTHER PIC Z(4).Z(2).
02      FILLER PIC X(1).
02      TDED   PIC Z(5).Z(2).
02      FILLER PIC X(2).
02      TNET   PIC Z(5).Z(2).
FD      DIS-PLAY-FILE
        LABEL RECORDS ARE OMITTED.
01      DIS-PLAY      PIC X(80).
FD      ACC-EPT-FILE
        LABEL RECORDS ARE OMITTED.
01      ACC-EPT      PIC X(10).
WORKING-STORAGE SECTION.
01      HED-1.
        02      FILLER PIC X(35) VALUE SPACES.
        02      HD-1   PIC X(33) VALUE
        *DEDUCTION SHEET FOR THE MONTH OF *.
        02      HD-11  PIC X(10).
01      HED-2.
        02      FILLER PIC X(35) VALUE SPACES.
        02      HD-2   PIC X(41) VALUE ALL "*".
01      HED-3.
        02      HD-3   PIC X(132) VALUE ALL "-".
01      HED-5.
        02      HD-51  PIC X(3) VALUE "S.N".
        02      FILLER PIC X(1) VALUE SPACES.
        02      HD-52  PIC X(5) VALUE "PF/NO".
        02      FILLER PIC X(2) VALUE SPACES.
        02      HD-53  PIC X(3) VALUE "OFF".
        02      FILLER PIC X(3) VALUE SPACES.
        02      HD-54  PIC X(3) VALUE "NPF".
        02      FILLER PIC X(4) VALUE SPACES.
        02      HD-55  PIC X(4) VALUE "PFAD".
        02      FILLER PIC X(2) VALUE SPACES.
        02      HD-56  PIC X(5) VALUE "I.TAX".
        02      FILLER PIC X(3) VALUE SPACES.
        02      HD-57  PIC X(4) VALUE "GIS1".
        02      FILLER PIC X(3) VALUE SPACES.
        02      HD-58  PIC X(4) VALUE "GIS2".
        02      FILLER PIC X(3) VALUE SPACES.

```

```

02      HD-59  PIC X(4) VALUE "GIS3".
02      FILLER PIC X(2) VALUE SPACES.
02      HD-551 PIC X(5) VALUE "CONAD".
02      FILLER PIC X(2) VALUE SPACES.
02      HD-552 PIC X(5) VALUE "FESAD".
02      FILLER PIC X(2) VALUE SPACES.
02      HD-553 PIC X(5) VALUE "FANAD".
02      FILLER PIC X(2) VALUE SPACES.
02      HD-554 PIC X(5) VALUE "HRENT".
02      FILLER PIC X(2) VALUE SPACES.
02      HD-555 PIC X(6) VALUE "E/W.CH".
02      FILLER PIC X(3) VALUE SPACES.
02      HD-556 PIC X(3) VALUE "FBF".
02      FILLER PIC X(3) VALUE SPACES.
02      HD-557 PIC X(4) VALUE "CLUB".
02      FILLER PIC X(2) VALUE SPACES.
02      HD-558 PIC X(5) VALUE "OTHER".
02      FILLER PIC X(4) VALUE SPACES.
02      HD-559 PIC X(6) VALUE "TOTDED".
02      FILLER PIC X(2) VALUE SPACES.
02      HD-510 PIC X(7) VALUE "NET-AMT".
01      TOTDED PIC 9(4)V9(2).
01      GROSAL PIC 9(4)V9(2).
01      CO-UNT PIC 999 VALUE 0.
01      NET-AMT PIC 9(4)V9(2).
01      TOT-NAME PIC X(5) VALUE "TOTAL".
01      TOT-OFF  PIC 9(4)V9(2) VALUE 0.
01      TOT-NPF  PIC 9(4)V9(2) VALUE 0.
01      TOT-PFAD PIC 9(4)V9(2) VALUE 0.
01      TOT-IT   PIC 9(4)V9(2) VALUE 0.
01      TOT-GIS1 PIC 9(4)V9(2) VALUE 0.
01      TOT-GIS2 PIC 9(4)V9(2) VALUE 0.
01      TOT-GIS3 PIC 9(4)V9(2) VALUE 0.
01      TOT-CONAD PIC 9(4)V9(2) VALUE 0.
01      TOT-FESAD PIC 9(4)V9(2) VALUE 0.
01      TOT-FANAD PIC 9(4)V9(2) VALUE 0.
01      TOT-HRENT PIC 9(4)V9(2) VALUE 0.
01      TOT-EC   PIC 9(4)V9(2) VALUE 0.
01      TOT-FBF  PIC 9(4)V9(2) VALUE 0.
01      TOT-CLUB PIC 9(4)V9(2) VALUE 0.
01      TOT-OTHER PIC 9(4)V9(2) VALUE 0.
01      TOT-DED  PIC 9(5)V9(2) VALUE 0.
01      TOT-NET  PIC 9(5)V9(2) VALUE 0.
77      MONTH PIC X(10).
PROCEDURE DIVISION.
FILE-OPENING.
    OPEN INPUT PER-REC-FILE,IN-SALARIES-FILE,
    IN-RECOVERY-FILE,ACC-EPT-FILE,
    OUTPUT DED-PAY-FILE,DIS-PLAY-FILE.
    MOVE SPACES TO DIS-PLAY.
    MOVE "PL. GIVE CURRENT MONTH AS MMMM' YY" TO DIS-PLAY.
    WRITE DIS-PLAY.
    READ ACC-EPT-FILE AT END GO TO ST-ART.
ST-ART.
    MOVE ACC-EPT TO MONTH.

```



MOVE MONTH TO HD-11.  
 WRITE LINE-1 FROM HED-1.  
 MOVE SPACES TO LINE-1.  
 WRITE LINE-1 FROM HED-2.  
 MOVE SPACES TO LINE-1.  
 WRITE LINE-1 FROM HED-3.  
 MOVE SPACES TO LINE-1.  
 WRITE LINE-1 FROM HED-5.  
 MOVE SPACES TO LINE-1.  
 WRITE LINE-1 FROM HED-3.  
 MOVE SPACES TO LINE-1.

INT1.           READ PER-REC-FILE AT END GO TO INTT1.

INTT1.          READ IN-SALARIES-FILE AT END GO TO NEXT-READ.

NEXT-READ.     READ IN-RECOVERY-FILE AT END GO TO CLOSE-FILES.  
                   PERFORM RETRIEVAL-ROUTINE THRU RET-EXIT.  
                   GO TO INT1.

RETRIEVAL-ROUTINE.

COMPUTE GROSAL = BF + DA + ADA + DE-A + HRA + IR1 + IR2.  
 COMPUTE GROSAL = GROSAL + WA + SP-PAY + MISCL.  
 COMPUTE TOTDED = OFF + NPF + RPPA + IT + GIS + GIS-1.  
 COMPUTE TOTDED = TOTDED + CGES + CADV + FBF + HR + EC.  
 COMPUTE TOTDED = TOTDED + FES-AD + CLUB + OTHER + FAN-AD  
 COMPUTE NET-AMT = GROSAL - TOTDED.  
 MOVE SPACES TO LINE-2.  
 ADD 1 TO CO-UNT.  
 ADD OFF TO TOT-OFF.  
 ADD NPF TO TOT-NPF.  
 ADD RPPA TO TOT-PFAD.  
 ADD IT TO TOT-IT.  
 ADD GIS TO TOT-GIS1.  
 ADD GIS-1 TO TOT-GIS2.  
 ADD CGES TO TOT-GIS3.  
 ADD CADV TO TOT-CONAD.  
 ADD FES-AD TO TOT-FESAD.  
 ADD FAN-AD TO TOT-FANAD.  
 ADD FBF TO TOT-FBF.  
 ADD HR TO TOT-HRENT.  
 ADD EC TO TOT-EC.  
 ADD CLUB TO TOT-CLUB.  
 ADD OTHER TO TOT-OTHER.  
 ADD TOTDED TO TOT-DED.  
 ADD NET-AMT TO TOT-NET.  
 MOVE CO-UNT TO SNO.  
 MOVE PFAC TO CPFNO.  
 MOVE OFF TO PF1.  
 MOVE NPF TO PF2.  
 MOVE RPPA TO PFAD.  
 MOVE IT TO I-TAX.  
 MOVE GIS TO GIS1.  
 MOVE GIS-1 TO GIS2.  
 MOVE CGES TO GIS3.  
 MOVE CADV TO CONAD.

```
MOVE FES-AD TO FESAD.
MOVE FAN-AD TO FAN-ADV.
MOVE FBF TO F-BF.
MOVE HR TO HRENT.
MOVE EC TO E-W-CH.
MOVE CLUB TO CL-UB.
MOVE OTHER TO OT-HER.
MOVE TOTDED TO DED.
MOVE NET-AMT TO NETAMT.
WRITE LINE-2.
WRITE LINE-1 FROM HED-3.
RET-EXIT.
EXIT.
CLOSE-FILES.
MOVE SPACES TO LINE-3.
MOVE TOT-NAME TO TNAME.
MOVE TOT-OPF TO TOPF.
MOVE TOT-NPF TO TNPF.
MOVE TOT-PPAD TO TPFAD.
MOVE TOT-IT TO TIT.
MOVE TOT-GIS1 TO TGIS1.
MOVE TOT-GIS2 TO TGIS2.
MOVE TOT-GIS3 TO TGIS3.
MOVE TOT-CONAD TO TCONAD.
MOVE TOT-FESAD TO TFESAD.
MOVE TOT-FANAD TO TFANAD.
MOVE TOT-FBF TO TFBF.
MOVE TOT-HRENT TO THRENT.
MOVE TOT-EC TO TEC.
MOVE TOT-CLUB TO TCLUB.
MOVE TOT-OTHER TO TOTHER.
MOVE TOT-DED TO TDED.
MOVE TOT-NET TO TNET.
WRITE LINE-3.
WRITE LINE-1 FROM HED-3.
CLOSE PER-REC-FILE,IN-SALARIES-FILE,IN-RECOVERY-FILE
DIS-PLAY-FILE,ACC-EPT-FILE,DED-PAY-FILE.
STOP RUN.
```

```

*****
***  ROUTINE FOR GENERATION OF PAYSLIP OF EMPLOYEES  ***
*****
IDENTIFICATION DIVISION.
PROGRAM-ID. SALARY.
AUTHOR. MIS.
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. VAX-11.
OBJECT-COMPUTER. VAX-11.
INPUT-OUTPUT SECTION.
FILE-CONTROL.
    SELECT PER-REC-FILE ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT IN-SALARIES-FILE ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT IN-RECOVERY-FILE ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT PAY-SLIP-FILE ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT REMARKS-FILE ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT DIS-PLAY-FILE ASSIGN TO "TT:".
    SELECT ACC-EPT-FILE ASSIGN TO "TT:".

```

DATA DIVISION.

FILE SECTION.

```

FD      PER-REC-FILE
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "PERSON.DAT"
        RECORD CONTAINS 43 CHARACTERS
        DATA RECORD IS PER-REC-IN.
01      PER-REC-IN.
        02      ID-NO-1      PIC X(5).
        02      NAME          PIC X(20).
        02      DESGN        PIC X(12).
        02      HOUSE-NO     PIC X(6).
FD      IN-SALARIES-FILE
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "SALARY.DAT"
        RECORD CONTAINS 76 CHARACTERS
        DATA RECORD IS SALE-REC.
01      SALE-REC.
        02      ID-NO-2     PIC X(5).
        02      BP          PIC 9(4)V9(2).
        02      DA          PIC 9(4)V9(2).
        02      ADA         PIC 9(4)V9(2).
        02      DE-A        PIC 9(4)V9(2).
        02      HRA         PIC 9(4)V9(2).
        02      IR1         PIC 9(4)V9(2).
        02      IR2         PIC 9(4)V9(2).

```

```

02      WA      PIC 9(4)V9(2),
02      SP-PAY  PIC 9(4)V9(2),
02      MISCL   PIC 9(4)V9(2),
02      TSAL    PIC 9(4)V9(2),
02      PFAC    PIC 9(4),
FD      IN-RECOVERY-FILE
        VALUE OF ID IS "RCOVER.DAT"
        LABEL RECORDS ARE STANDARD
        RECORD CONTAINS 95 CHARACTERS
        DATA RECORD IS RECOVER-REC.
01      RECOVER-REC.
02      ID-NO-3 PIC X(5),
02      OPF     PIC 9(4)V9(2),
02      NPF     PIC 9(4)V9(2),
02      RFFA    PIC 9(4)V9(2),
02      IT      PIC 9(4)V9(2),
02      GIS     PIC 9(4)V9(2),
02      GIS-1   PIC 9(4)V9(2),
02      CGES    PIC 9(4)V9(2),
02      CADV    PIC 9(4)V9(2),
02      FES-AD  PIC 9(4)V9(2),
02      FAN-AD  PIC 9(4)V9(2),
02      HR      PIC 9(4)V9(2),
02      EC      PIC 9(4)V9(2),
02      FBF     PIC 9(4)V9(2),
02      CLUB    PIC 9(4)V9(2),
02      OTHER   PIC 9(4)V9(2),
FD      REMARKS-FILE
        VALUE OF ID IS "REMARKS.DAT"
        LABEL RECORDS ARE STANDARD
        RECORD CONTAINS 125 CHARACTERS
        DATA RECORD IS REMARK.
01      REMARK.
02      R1      PIC X(40),
02      R2      PIC X(40),
02      R3      PIC X(40),
02      R4      PIC X(40),
02      R5      PIC X(40),
FD      PAY-SLIP-FILE
        VALUE OF ID IS "PAYSLP.DAT"
        LABEL RECORDS ARE STANDARD
        DATA RECORDS ARE LINE-1,LINE-2,LINE-3,LINE-4,LINE-5.
01      LINE-1  PIC X(132),
01      LINE-2.
02      M1      PIC X(20),
02      C1      PIC X(5),
02      FILLER  PIC X(10),
02      M2      PIC X(30),
02      C2      PIC X(30),
01      LINE-3.
02      C3      PIC X(12),
02      C33     PIC X(80),
01      LINE-4.
02      M4      PIC X(30),
02      C4      PIC Z(4),Z(2),

```

```

02      FILLER  PIC X(10).
02      M5      PIC X(30).
02      C5      PIC Z(4).Z(2).
02      FILLER  PIC X(5).
02      REMS    PIC X(40).
01  LINE-5.
02      FILLER  PIC X(35).
02      M6      PIC X(26).
02      C6      PIC Z(4).Z(2).
FD  DIS-PLAY-FILE
    LABEL RECORDS ARE OMITTED.
01  DIS-PLAY      PIC X(80).
FD  ACC-EPT-FILE
    LABEL RECORDS ARE OMITTED.
01  ACC-EPT      PIC X(10).
WORKING-STORAGE SECTION.
01  HED-111.
02      FILLER  PIC X(35) VALUE SPACES.
02      A1      PIC X(43) VALUE ALL "--".
01  HED-1.
02      HED-16  PIC X(40) VALUE
"
02      HED-20  PIC X(33) VALUE
" NATIONAL INSTITUTE OF HYDROLOGY "
02      HED-30  PIC X(40) VALUE
"
01  HED-444.
02      FILLER  PIC X(6) VALUE SPACES.
02      X1      PIC X(25) VALUE ALL "--"
02      FILLER  PIC X(28) VALUE SPACES.
02      X2      PIC X(12) VALUE ALL "--"
02      FILLER  PIC X(34) VALUE SPACES.
02      X3      PIC X(12) VALUE ALL "--"
01  HED-01.
02      WM-00   PIC X(13)          VALUE "SHRI/DR/SMT."
02      WC-00   PIC X(20).
02      FILLER  PIC X(42) VALUE SPACES.
02      WM-0    PIC X(8)          VALUE "AC. NO.".
02      WC-0    PIC X(6).
01  HED-2.
02      FILLER  PIC X(13).
02      WC-1    PIC X(12).
01  HED-3.
02      FILLER  PIC X(40) VALUE SPACES.
02      WM-2    PIC X(30) VALUE "PAYSLIP FOR THE MONTH OF "
02      WC-2    PIC X(10).
01  HED-4.
02      HED-41  PIC X(58) VALUE
    SALARIES AND ALLOWANCES
02      HED-42  PIC X(14) VALUE
    " RECOVERIES".
02      HED-43  PIC X(49) VALUE
"
REMARKS".
01  HED-5  PIC X(40) VALUE "1. BASIC PAY          RS.".
01  HED-6  PIC X(30) VALUE

```

01	"2. DEARNESS ALLOWANCE	RS."	
	HED-7 PIC X(30) VALUE		
01	"3. ADDL. DEARNESS ALLOWANCE	RS."	
	HED-8 PIC X(30) VALUE		
01	"4. DEPUTATION ALLOWANCE	RS."	
	HED-9 PIC X(30) VALUE		
01	"5. HOUSE RENT ALLOWANCE	RS."	
	HED-10 PIC X(30) VALUE		
01	"6. INTERIM RELIEF1	RS."	
	HED-11 PIC X(30) VALUE		
01	"7. INTERIM RELIEF2	RS."	
	HED-12 PIC X(30) VALUE		
01	"8. WASHING ALLOWANCE	RS."	
	HED-13 PIC X(30) VALUE		
01	"9. SP-PAY	RS."	
	HED-14 PIC X(30) VALUE		
01	"10. MISCELLANEDUS	RS."	
	HED-15 PIC X(30) VALUE	"GROSS SALARY =	RS."
01	HAD-1 PIC X(30) VALUE	"1. O. PROV. FUND	RS."
01	HAD-2 PIC X(30) VALUE	"2. N. PROV. FUND	RS."
01	HAD-3 PIC X(30) VALUE	"3. RPPA	RS."
01	HAD-4 PIC X(30) VALUE	"4. INCOME TAX	RS."
01	HAD-5 PIC X(30) VALUE	"5. GROUP INSURANCE	RS."
01	HAD-6 PIC X(30) VALUE	"6. G.I.S.	RS."
01	HAD-7 PIC X(30) VALUE	"7. CGEIS.	RS."
01	HAD-8 PIC X(30) VALUE	"8. CONVEY. ADVANCE	RS."
01	HAD-9 PIC X(30) VALUE	"9. FESTIVAL-ADV.	RS."
01	HAD-10 PIC X(30) VALUE	"10. FAN ADVANCE	RS."
01	HAD-11 PIC X(30) VALUE	"11. HOUSE RENT	RS."
01	HAD-12 PIC X(30) VALUE	"12. ELECTRICITY CHARGES	RS."
01	HAD-13 PIC X(30) VALUE	"13. FBF	RS."
01	HAD-14 PIC X(40) VALUE	"14. CLUB SUBSCR.	RS."
01	HAD-15 PIC X(30) VALUE	"15. OTHERS	RS."
01	HAD-16 PIC X(30) VALUE	" TOTAL RECOVERIES =	RS."
01	HAD-17 PIC X(26) VALUE		
	"NET AMOUNT PAYABLE =	RS."	
01	GR-SAL PIC 9(4)V9(2).		
01	TO-REC PIC 9(4)V9(2).		
01	NET-A-P PIC 9(4)V9(2).		
77	MONTH PIC X(10).		

PROCEDURE DIVISION.

FILE-OPENING.

OPEN INPUT PER-REC-FILE, IN-SALARIES-FILE,  
IN-RECOVERY-FILE, ACC-EPT-FILE, REMARKS-FILE  
OUTPUT

DIS-PLAY-FILE, PAY-SLIP-FILE.

MOVE SPACES TO DIS-PLAY.

MOVE "PL. GIVE CURRENT MONTH AS MMMM' YY" TO DIS-PLAY.

WRITE DIS-PLAY.

READ ACC-EPT-FILE AT END GO TO ST-ART.

ST-ART.

MOVE ACC-EPT TO MONTH.

READ REMARKS-FILE AT END GO TO INTT.

INTT.

READ PER-REC-FILE AT END GO TO INTT1.

INTT1.

READ IN-SALARIES-FILE AT END GO TO NEXT-READ.  
NEXT-READ.  
READ IN-RECOVERY-FILE AT END GO TO CLOSE-FILES.  
WRITE LINE-1 FROM HED-1 AFTER ADVANCING 5 LINES.  
MOVE SPACES TO LINE-1.  
WRITE LINE-1 FROM HED-111 AFTER ADVANCING 1 LINES.  
MOVE SPACES TO LINE-1,LINE-2.  
MOVE ID-NO-1 TO WC-0.  
MOVE NAME TO WC-00.  
WRITE LINE-2 FROM HED-01 AFTER ADVANCING 1 LINES.  
MOVE SPACES TO LINE-3  
MOVE DESGN TO C3.  
WRITE LINE-3 AFTER ADVANCING 1 LINES.  
MOVE SPACES TO LINE-3  
MOVE MONTH TO WC-2.  
WRITE LINE-3 FROM HED-3 AFTER ADVANCING 1 LINES.  
MOVE SPACES TO LINE-1.  
WRITE LINE-1 FROM HED-4 AFTER ADVANCING 2 LINES.  
MOVE SPACES TO LINE-1.  
WRITE LINE-1 FROM HED-444 AFTER ADVANCING 1 LINES.  
IF (ID-NO-1 = ID-NO-2 ) AND (ID-NO-1 = ID-NO-3 )  
PERFORM-RETRIEVAL-ROUTINE THRU RETRIEVAL-ROUTINE-EXIT  
ELSE  
PERFORM ERROR-ROUTINE THRU ERROR-ROUTINE-EXIT.  
GO TO ST-ART.

RETRIEVAL-ROUTINE.

MOVE HED-5 TO M4.  
MOVE BP TO C4.  
MOVE HAD-1 TO M5.  
MOVE OPF TO C5.  
MOVE R1 TO REMS.  
WRITE LINE-4 AFTER ADVANCING 1 LINES.  
MOVE SPACES TO LINE-4,REMS.  
MOVE HED-6 TO LINE-4.  
MOVE DA TO C4.  
MOVE HAD-2 TO M5.  
MOVE NPF TO C5.  
MOVE R2 TO REMS.  
WRITE LINE-4 AFTER ADVANCING 1 LINES.  
MOVE SPACES TO LINE-4,REMS.  
MOVE HED-7 TO M4.  
MOVE ADA TO C4.  
MOVE HAD-3 TO M5.  
MOVE RFFA TO C5.  
MOVE R3 TO REMS.  
WRITE LINE-4 AFTER ADVANCING 1 LINES.  
MOVE SPACES TO LINE-4,REMS.  
MOVE HED-8 TO M4.  
MOVE DE-A TO C4.  
MOVE HAD-4 TO M5.  
MOVE IT TO C5.  
MOVE R4 TO REMS.  
WRITE LINE-4 AFTER ADVANCING 1 LINES.  
MOVE SPACES TO LINE-4,REMS.

MOVE HED-9 TO M4.  
 MOVE HRA TO C4.  
 MOVE HAD-5 TO M5.  
 MOVE GIS TO C5.  
 MOVE R5 TO REMS.  
 WRITE LINE-4 AFTER ADVANCING 1 LINES.  
 MOVE SPACES TO LINE-4,REMS.  
 MOVE HED-10 TO M4.  
 MOVE IR1 TO C4.  
 MOVE HAD-6 TO M5.  
 MOVE GIS-1 TO C5.  
 WRITE LINE-4 AFTER ADVANCING 1 LINES.  
 MOVE SPACES TO LINE-4.  
 MOVE HED-11 TO M4.  
 MOVE IR2 TO C4.  
 MOVE HAD-7 TO M5.  
 MOVE CGES TO C5.  
 WRITE LINE-4 AFTER ADVANCING 1 LINES.  
 MOVE SPACES TO LINE-4.  
 MOVE HED-12 TO M4.  
 MOVE WA TO C4.  
 MOVE HAD-8 TO M5.  
 MOVE CADV TO C5.  
 WRITE LINE-4 AFTER ADVANCING 1 LINES.  
 MOVE SPACES TO LINE-4.  
 MOVE HED-13 TO M4.  
 MOVE SP-PAY TO C4.  
 MOVE HAD-9 TO M5.  
 MOVE FES-AD TO C5.  
 WRITE LINE-4 AFTER ADVANCING 1 LINES.  
 MOVE SPACES TO LINE-4.  
 MOVE HED-14 TO M4.  
 MOVE MISCL TO C4.  
 MOVE HAD-10 TO M5.  
 MOVE FAN-AD TO C5.  
 WRITE LINE-4 AFTER ADVANCING 1 LINES.  
 MOVE SPACES TO LINE-4.  
 MOVE HED-15 TO M4.  
 MOVE SPACES TO M4.  
 MOVE 0 TO C4.  
 MOVE HAD-11 TO M5.  
 MOVE HR TO C5.  
 WRITE LINE-4 AFTER ADVANCING 1 LINES.  
 MOVE SPACES TO LINE-4.  
 MOVE SPACES TO M4.  
 MOVE 0 TO C4.  
 MOVE HAD-12 TO M5.  
 MOVE EC TO C5.  
 WRITE LINE-4 AFTER ADVANCING 1 LINES.  
 MOVE SPACES TO LINE-4.  
 MOVE SPACES TO M4.  
 MOVE 0 TO C4.  
 MOVE HAD-13 TO M5.  
 MOVE FBF TO C5.  
 WRITE LINE-4 AFTER ADVANCING 1 LINES.



```

MOVE SPACES TO LINE-4.
MOVE SPACES TO M4.
MOVE 0 TO C4.
MOVE HAD-14 TO M5.
MOVE CLUB TO C5.
WRITE LINE-4 AFTER ADVANCING 1 LINES.
MOVE SPACES TO LINE-4.
MOVE SPACES TO M4.
MOVE 0 TO C4.
MOVE HAD-15 TO M5.
MOVE OTHER TO C5.
WRITE LINE-4 AFTER ADVANCING 1 LINES.
MOVE SPACES TO LINE-4.
COMPUTE GR-SAL = BP + DA + ADA + DE-A + HRA + IR1.
COMPUTE GR-SAL = GR-SAL + IR2 + WA + SP-PAY + MISCL.
COMPUTE TO-REC = OPF + NPF + RPPA + IT + GIS + GIS-1.
COMPUTE TO-REC = TO-REC + CGES + CADV + FBF + HR + FAN-AD.
COMPUTE TO-REC = TO-REC + FES-AD + EC + CLUB + OTHER.
MOVE HED-15 TO M4.
MOVE GR-SAL TO C4.
MOVE HAD-16 TO M5.
MOVE TO-REC TO C5.
WRITE LINE-4 AFTER ADVANCING 2 LINES.
MOVE SPACES TO LINE-1,LINE-2,LINE-3,LINE-4,LINE-5.
WRITE LINE-1 AFTER ADVANCING 2 LINES.
COMPUTE NET-A-P = GR-SAL - TO-REC.
MOVE HAD-17 TO M6.
MOVE NET-A-P TO C6.
WRITE LINE-5.
RETRIEVAL-ROUTINE-EXIT.
EXIT.
ERROR-ROUTINE.
MOVE SPACES TO DIS-PAY.
MOVE "PL. SORT UNORDERED RECORDS " TO DIS-PAY.
WRITE DIS-PAY.
ERROR-ROUTINE-EXIT.
CLOSE-FILES.
CLOSE PER-REC-FILE,IN-SALARIES-FILE,IN-RECOVERY-FILE,
,DIS-PAY-FILE,ACC-EPT-FILE,REMARKS-FILE,
PAY-SLIP-FILE.
STOP RUN.

```

```

*****
*** ROUTINE FOR VALIDATION OF RAW DATA FILES ***
*****
IDENTIFICATION DIVISION.
PROGRAM-ID. VALDAT.
AUTHOR. MIS.
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. VAX-11.
OBJECT-COMPUTER. VAX-11.
INPUT-OUTPUT SECTION.
FILE-CONTROL.

```

```

    SELECT READ-1 ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT READ-2 ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT READ-3 ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT PER-REC-FILE ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT IN-SALARIES-FILE ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT IN-RECOVERY-FILE ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT IN-SALARIES-FILE-ED ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT IN-RECOVERY-FILE-ED ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT PER-REC-FILE-ED ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT ERROR-1-FILE ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT ERROR-2-FILE ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.
    SELECT ERROR-3-FILE ASSIGN TO "SYS$DISK:"
    RESERVE 2 AREAS
    ACCESS MODE IS SEQUENTIAL.

```

```

DATA DIVISION.
FILE SECTION.
FD READ-1
   LABEL RECORDS ARE STANDARD
   VALUE OF ID IS "S1.DAT"
   RECORD CONTAINS 132 CHARACTERS
   DATA RECORD IS AFG.

```

```

01      AFG PIC X(132),
FD      READ-2
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "S2.DAT"
        RECORD CONTAINS 132 CHARACTERS
        DATA RECORD IS BFG.
01      BFG PIC X(132),
FD      READ-3
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "S3.DAT"
        RECORD CONTAINS 132 CHARACTERS
        DATA RECORD IS CFG.
01      CFG PIC X(132),
FD      PER-REC-FILE
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "PERSON.DAT"
        RECORD CONTAINS 43 CHARACTERS
        DATA RECORD IS PER-REC-IN.
01      PER-REC-IN.
        02      ID-NO-1          PIC X(5).
        02      NAME            PIC X(20).
        02      DESGN           PIC X(12).
        02      HOUSE-NO       PIC X(6).
FD      PER-REC-FILE-ED
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "PERSOE.DAT"
        RECORD CONTAINS 43 CHARACTERS
        DATA RECORD IS E-PER-REC-IN.
01      E-PER-REC-IN.
        02      E-ID-NO-1      PIC X(5).
        02      E-NAME         PIC X(20).
        02      E-DESGN        PIC X(12).
        02      E-HOUSE-NO     PIC X(6).
FD      IN-SALARIES-FILE
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "SALARY.DAT"
        RECORD CONTAINS 75 CHARACTERS
        DATA RECORD IS SALE-REC.
01      SALE-REC.
        02      ID-NO-2        PIC X(5).
        02      BP             PIC 9(4)V9(2).
        02      DA             PIC 9(4)V9(2).
        02      ADA            PIC 9(4)V9(2).
        02      DE-A           PIC 9(4)V9(2).
        02      HRA            PIC 9(4)V9(2).
        02      IR1            PIC 9(4)V9(2).
        02      IR2            PIC 9(4)V9(2).
        02      WA             PIC 9(4)V9(2).
        02      SP-PAY         PIC 9(4)V9(2).
        02      MISCL          PIC 9(4)V9(2).
        02      TSAL           PIC 9(4)V9(2).
        02      PFAC           PIC 9(4).
FD      IN-SALARIES-FILE-ED
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "SALAR.DAT"

```

RECORD CONTAINS 75 CHARACTERS  
DATA RECORD IS E-SALE-REC.

01 E-SALE-REC.

02	E-ID-NO-2	PIC X(5).
02	E-BP	PIC X(6).
02	E-DA	PIC X(6).
02	E-ADA	PIC X(6).
02	E-DE-A	PIC X(6).
02	E-HRA	PIC X(6).
02	E-IR1	PIC X(6).
02	E-IR2	PIC X(6).
02	E-WA	PIC X(6).
02	E-SF-PAY	PIC X(6).
02	E-MISCL	PIC X(6).
02	E-TSAL	PIC X(6).
02	E-PFAC	PIC X(4).

FD IN-RECOVERY-FILE  
LABEL RECORDS ARE STANDARD  
VALUE OF ID IS 'RCOVER.DAT'  
RECORD CONTAINS 95 CHARACTERS  
DATA RECORD IS RECOVER-REC.

01 RECOVER-REC.

02	ID-NO-3	PIC X(5).
02	OFF	PIC 9(4)V9(2).
02	NPF	PIC 9(4)V9(2).
02	RFFA	PIC 9(4)V9(2).
02	IT	PIC 9(4)V9(2).
02	GIS	PIC 9(4)V9(2).
02	GIS-1	PIC 9(4)V9(2).
02	CGES	PIC 9(4)V9(2).
02	CADV	PIC 9(4)V9(2).
02	FES-AD	PIC 9(4)V9(2).
02	FAN-AD	PIC 9(4)V9(2).
02	HR	PIC 9(4)V9(2).
02	EC	PIC 9(4)V9(2).
02	FBF	PIC 9(4)V9(2).
02	CLUB	PIC 9(4)V9(2).
02	OTHER	PIC 9(4)V9(2).

FD IN-RECOVERY-FILE-ED  
LABEL RECORDS ARE STANDARD  
VALUE OF ID IS 'RCOVE.DAT'  
RECORD CONTAINS 95 CHARACTERS  
DATA RECORD IS E-RECOVER-REC.

01 E-RECOVER-REC.

02	E-ID-NO-3	PIC X(5).
02	E-OFF	PIC X(6).
02	E-NPF	PIC X(6).
02	E-RFFA	PIC X(6).
02	E-IT	PIC X(6).
02	E-GIS	PIC X(6).
02	E-GIS-1	PIC X(6).
02	E-CGES	PIC X(6).
02	E-CADV	PIC X(6).
02	E-FES-AD	PIC X(6).
02	E-FAN-AD	PIC X(6).

```

02      E-HR                PIC X(6).
02      E-EC                PIC X(6).
02      E-FBF              PIC X(6).
02      E-CLUB             PIC X(6).
02      E-OTHER            PIC X(6).
FD      ERROR-1-FILE
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "ERR1.DAT"
        DATA RECORD IS LINE-1,LINE-11.
01      LINE-1 PIC X(132).
01      LINE-11.
        02      REC-NAME-1      PIC X(25).
        02      FILLER          PIC X(30).
        02      REC-NUMBER-1    PIC XX.
FD      ERROR-2-FILE
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "ERR2.DAT"
        DATA RECORD IS LINE-2,LINE-22.
01      LINE-2 PIC X(132).
01      LINE-22.
        02      REC-NAME-2      PIC X(25).
        02      FILLER          PIC X(30).
        02      REC-NUMBER-2    PIC XX.
FD      ERROR-3-FILE
        LABEL RECORDS ARE STANDARD
        VALUE OF ID IS "ERR3.DAT"
        DATA RECORD IS LINE-3,LINE-33.
01      LINE-3 PIC X(132).
01      LINE-33.
        02      REC-NAME-3      PIC X(25).
        02      FILLER          PIC X(30).
        02      REC-NUMBER-3    PIC XX.
WORKING-STORAGE SECTION.
01      HED-1,
        02      FILLER PIC X VALUE SPACES.
        02      STARS  PIC X(100) VALUE ALL "*".
01      HED-2,
        02      FILLER PIC X(25) VALUE SPACES.
        02 A1      PIC X(35) VALUE " NO ERRORS DETECTED;THANK YOU".
01      HED-PRINT,
        02 A2      PIC X(40) VALUE "PLEASE CHECK FOLLOWING DATA OF ".
        02      A3 PIC X(20) VALUE SPACES.
        02      A4 PIC X(24) VALUE "FOR GIVEN RECORD NUMBER".
77      X1      PIC 99.
77      DFG     PIC X(4)      VALUE "NO".
77      T1      PIC 9(4)V9(2).
77      T2      PIC 9(4)V9(2).
PROCEDURE DIVISION.
*****
*****THE PART FROM UNSTRING-OPEN TO UNSTRING-CLOSE PUTS THE *****
*****INPUT DATA INTO CORROSPONDING FILES. *****
*****
UNSTRING-OPEN.
        OPEN INPUT READ-1,READ-2,READ-3
        OUTPUT PER-REC-FILE-ED,IN-SALARIES-FILE-ED,

```

```

IN-RECOVERY-FILE-ED.
TRIED-1.
  READ READ-1 AT END GO TO HALT-1.
  UNSTRING AFG
  DELIMITED BY ", "
  INTO E-ID-NO-2, E-BP, E-DA, E-ADA, E-DE-A, E-HRA, E-IR1,
  E-IR2, E-WA, E-SP-PAY, E-MISCL, E-TSAL, E-PFAC.
  WRITE E-SALE-REC.
  GO TO TRIED-1.
HALT-1.
TRIED-2.
  READ READ-2 AT END GO TO HALT-2.
  UNSTRING BFG
  DELIMITED BY ", "
  INTO E-ID-NO-3, E-OPF, E-NPF, E-RFPA, E-IT, E-GIS, E-GIS-1,
  E-CGES, E-CADV, E-FES-AD, E-FAN-AD, E-HR, E-EC, E-FBF,
  E-CLUB, E-OTHER.
  WRITE E-RECOVER-REC.
  GO TO TRIED-2.
HALT-2.
TRIED-3.
  READ READ-3 AT END GO TO HALT-3.
  UNSTRING CFG
  DELIMITED BY ", "
  INTO E-ID-NO-1, E-NAME, E-DESGN, E-HOUSE-NO.
  WRITE E-PER-REC-IN.
  GO TO TRIED-3.
HALT-3.
  CLOSE IN-SALARIES-FILE-ED, IN-RECOVERY-FILE-ED,
  PER-REC-FILE-ED, READ-1, READ-2, READ-3.
UNSTRING-CLOSE.
FILE-OPEN.
  OPEN INPUT PER-REC-FILE-ED, IN-SALARIES-FILE-ED,
  IN-RECOVERY-FILE-ED
  OUTPUT ERROR-1-FILE, ERROR-2-FILE, ERROR-3-FILE,
  PER-REC-FILE, IN-SALARIES-FILE, IN-RECOVERY-FILE.
  WRITE LINE-1 FROM HED-1.
  WRITE LINE-2 FROM HED-1.
  WRITE LINE-3 FROM HED-1.
  MOVE SPACES TO LINE-1, LINE-2, LINE-3, LINE-11, LINE-22, LINE-33.
  MOVE "PER-REC-FILE-ED" TO A3
  WRITE LINE-1 FROM HED-PRINT AFTER ADVANCING 2 LINES.
  MOVE "IN-SALARIES-FILE-ED" TO A3.
  WRITE LINE-2 FROM HED-PRINT AFTER ADVANCING 2 LINES.
  MOVE "IN-RECOVERY-FILE-ED" TO A3.
  WRITE LINE-3 FROM HED-PRINT AFTER ADVANCING 2 LINES.
  MOVE SPACES TO LINE-1, LINE-2, LINE-3.
  WRITE LINE-1 FROM HED-1.
  WRITE LINE-2 FROM HED-1.
  WRITE LINE-3 FROM HED-1.
  MOVE ZERO TO X1.
READ-INPUT-1.
  READ PER-REC-FILE-ED AT END GO TO READ-INPUT-2.
  ADD 1 TO X1.
  MOVE X1 TO REC-NUMBER-1

```

```

IF E-ID-NO-1 IS NOT NUMERIC
MOVE SPACES TO REC-NAME-1
MOVE "E-ID-NO-1" TO REC-NAME-1
WRITE LINE-11 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-NAME IS NOT ALPHABETIC
MOVE SPACES TO REC-NAME-1
MOVE "E-NAME" TO REC-NAME-1
WRITE LINE-11 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-DESGN IS NOT ALPHABETIC
MOVE SPACES TO REC-NAME-1
MOVE "E-DESGN" TO REC-NAME-1
WRITE LINE-11 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
GO TO READ-INPUT-1.
READ-INPUT-2.
IF DFG = "NO" WRITE LINE-1 FROM HED-2.
MOVE ZERO TO X1.
READ-INPUT-3.
READ IN-SALARIES-FILE-ED AT END GO TO READ-INPUT-4.
ADD 1 TO X1
MOVE X1 TO REC-NUMBER-2
IF E-ID-NO-2 NOT NUMERIC
MOVE SPACES TO REC-NAME-2
MOVE "E-ID-NO-2" TO REC-NAME-2
WRITE LINE-22 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-BP IS NOT NUMERIC
MOVE SPACES TO REC-NAME-2
MOVE "E-BP" TO REC-NAME-2
WRITE LINE-22 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-DA IS NOT NUMERIC
MOVE SPACES TO REC-NAME-2
MOVE "E-DA" TO REC-NAME-2
WRITE LINE-22 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-ADA IS NOT NUMERIC
MOVE SPACES TO REC-NAME-2
MOVE "E-ADA" TO REC-NAME-2
WRITE LINE-22 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-DE-A IS NOT NUMERIC
MOVE SPACES TO REC-NAME-2
MOVE "E-DE-A" TO REC-NAME-2
WRITE LINE-22 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-HRA IS NOT NUMERIC
MOVE SPACES TO REC-NAME-2
MOVE "E-HRA" TO REC-NAME-2
WRITE LINE-22 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-IR1 IS NOT NUMERIC
MOVE SPACES TO REC-NAME-2

```

```

MOVE "E-IR1" TO REC-NAME-2
WRITE LINE-22 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-IR2 IS NOT NUMERIC
MOVE SPACES TO REC-NAME-2
MOVE "E-IR2" TO REC-NAME-2
WRITE LINE-22 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-WA IS NOT NUMERIC
MOVE SPACES TO REC-NAME-2
MOVE "E-WA" TO REC-NAME-2
WRITE LINE-22 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-SP-PAY IS NOT NUMERIC
MOVE SPACES TO REC-NAME-2
MOVE "E-SP-PAY" TO REC-NAME-2
WRITE LINE-22 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-MISCL IS NOT NUMERIC
MOVE SPACES TO REC-NAME-2
MOVE "E-MISCL" TO REC-NAME-2
WRITE LINE-22 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-TSAL IS NOT NUMERIC
MOVE SPACES TO REC-NAME-2
MOVE "E-TSAL" TO REC-NAME-2
WRITE LINE-22 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
GO TO READ-INPUT-3.
READ-INPUT-4.
IF DFG = "NO" WRITE LINE-2 FROM HED-2.
MOVE ZERO TO X1.
READ-INPUT-5.
READ IN-RECOVERY-FILE-ED AT END GO TO CLOSE-RUN.
ADD 1 TO X1.
MOVE X1 TO REC-NUMBER-3
IF E-ID-NO-3 IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-ID-NO-3" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-OFF IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-OFF" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-NPF IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-NPF" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-RFPA IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-RFPA" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES

```



```

MOVE "YES" TO DFG.
IF E-IT IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-IT" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-GIS IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-GIS" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-GIS-1 IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-GIS-1" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-CGES IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-CGES" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-CADV IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-CADV" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-FBF IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-FBF" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-HR IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-HR" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-FES-AD IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-FES-AD" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-EC IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-EC" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-CLUB IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-CLUB" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES
MOVE "YES" TO DFG.
IF E-OTHER IS NOT NUMERIC
MOVE SPACES TO REC-NAME-3
MOVE "E-OTHER" TO REC-NAME-3
WRITE LINE-33 AFTER ADVANCING 2 LINES

```

```

        MOVE "YES" TO DFG.
        GO TO READ-INPUT-5.
CLOSE-RUN.
        IF DFG = "NO" WRITE LINE-3 FROM HED-2
        PERFORM COPYING THRU FI-NAL
        ELSE
        GO TO FINAL-CLOSE.
COPYING.
        CLOSE PER-REC-FILE-ED,IN-SALARIES-FILE-ED,
        IN-RECOVERY-FILE-ED.
        OPEN INPUT PER-REC-FILE-ED,IN-SALARIES-FILE-ED,
        IN-RECOVERY-FILE-ED.
TT1.
        READ PER-REC-FILE-ED RECORD INTO PER-REC-IN AT END
        GO TO TT2.
        WRITE PER-REC-IN.
        GO TO TT1.
TT2.
        READ IN-SALARIES-FILE-ED RECORD INTO SALE-REC
        AT END GO TO TT3.
        WRITE SALE-REC.
        GO TO TT2.
TT3.
        READ IN-RECOVERY-FILE-ED RECORD INTO RECOVER-REC
        AT END GO TO FINAL-CLOSE.
        WRITE RECOVER-REC.
        GO TO TT3.
FI-NAL.
FINAL-CLOSE.
        CLOSE PER-REC-FILE,IN-SALARIES-FILE,IN-RECOVERY-FILE
        ERROR-1-FILE,ERROR-2-FILE,ERROR-3-FILE,
        IN-SALARIES-FILE-ED,IN-RECOVERY-FILE-ED,
        PER-REC-FILE-ED.
        STOP RUN.

```

## 5.0 INPUT AND OUTPUT DESCRIPTION

### 5.1 Introduction

This chapter deals with the creation of three master files from the raw data available about the employees of NIH. The raw data has been organised into three elementary disk files.

- i) PER\_REC\_FILE\_ED
- ii) IN\_SALARIES\_FILE\_ED
- iii) IN\_RECOVERY\_FILE\_ED

The records and their subrecords for each one of these elementary disk files are listed in Table 5.1.

Once the validation checks have been performed for correctness of all the above three files, their records are transferred to three corresponding files which are used as master files for further use. These disk files are

- i) PER\_REC\_FILE
- ii) IN\_SALARIES\_FILE
- iii) IN\_RECOVERY\_FILE

### 5.2 File Parameters and Their Record Lengths

In each of the files, the names of the subrecords have been so assigned as to make them self documented. While considering the length of each record/subrecord, proper care has been taken of the maximum requirement in that field.

Table - 5.1

FILE : PER_REC_FILE_ED	
RECORD NAME	SUBRECORDS
E_PER_REC_IN	E_ID_NO_1, E_NAME, E_DESGN, E_HOUSE_NO
FILE : IN_SALARIES_FILE_ED	
RECORD NAME	SUBRECORDS
E_SALE_REC	E_ID_NO_2, E_BP, E_DA, E_ADA, E_DE_A, E_HRA, E_IR1, E_IR2, E_WA, E_SP_PAY, E_MISCL, E_TSAL, E_PFAC
FILE : IN_RECOVERY_FILE_ED	
RECORD NAME	SUBRECORDS
E_RECOVER_REC	E_ID_NO_3, E_OPF, E_NPF, E_RFPA, E_IT, E_GIS, E_GIS_1, E_CGES, E_CADV, E_FES_AD, E_FAN_AD, E_FBF, E_HR, E_EC, E_CLUB, E_OTHER.

In the PER\_REC\_FILE, ID\_NO\_1 stands for identification Number, NAME for employee-name, DESGN for designation and HOUSE\_NO for house number. ID\_NO is the bank account number of the employee and is of 5 character length.

In the IN\_SALARIES\_FILE, records has been taken of the incoming money contributing to salary. These are BP (Basic Pay), DA (Dearness Allowance), ADA( Additional Dearness Allowance), DE\_A( Deputation Allowance), HRA (House Rent Allowance), IR1 (Interim Relief1), IR2 (Interim Relief2), ARREARS, WA(Washing Allowance), SP\_PAY, MISCL(Miscellaneous), TSAL (Total Salaries) and PFAC (Provident Fund Account Number) The record length for each (except PFAC) of these has been taken of six-character, four for integer part and two for decimal part. The record length of PFAC is four character. This was considered with a view that non of these amounts will exceed four figures for any NIH employee.

The IN\_RECOVERY\_FILE consists of the records of all outgoing money resulting in recovery from the pay. These are OPF (Outside Provident Fund), NPF (NIH Provident Fund), RPFA (Recovery of Provident Fund Advance), IT (Income Tax), GIS (Group Insurance Scheme), GIS-1(Group Insurance Scheme-1), CGES (Central Govt. Employees Insurance Scheme), CADV (Conveyance Advance), FBF (Family Benefit Fund), HR (House Rent), EC (electricity Charge) FES\_AD (Festival Advance), FAN\_AD (Fan Advance, OTHER, TREC (total Recovery). Just as in case of IN\_SALARIES\_FILE, the record length has been taken of six-characters for identical reasons.

### 5.3 **Format of Input Data**

Any financial package will have a huge number of data to be input to the files. In order to provide the user with ease of inputting this data, the package has been so designed that the data can be inserted in each of the files in consecutive locations separating the

successive records by a COMMA(,). For example, in the **PER\_REC\_FILE** the data to its data file can be given as 449,SATISH CHANDRA,DIRECTOR,108. This feature has been incorporated from the system's 'UNSTRING' feature with the use of,(comma) as delimiter.

#### **5.4 Validation of Data**

Validation of data means performing some logical operations on the data supplied to the computer to check its correctness. Validation is necessary to ensure that records do not contain obvious omissions, inconsistencies or errors. Errors in files are relatively common because of

- i) Source document errors made by person entering data, and
- ii) Conversion errors made by operations personnel in key punching data onto cards, keying data onto tape, keying data onto terminal, and so on.

Validation is required basically in two stages.

- i) After the data entry.
- ii) After the updating of data

##### **5.4.1 Validation checks**

The various validation checks incorporated in our validation routine are as follows.

- i) Field check
- ii) Limit check
- iii) Sum Total check
- iv) Code check

i) FIELD CHECK

To check whether a particular field has a particular type of data such as

- Numeric data
- Alphanumeric data
- Alphabetic data

For example, a city-name should have only alphabetic data, a PIN code should have only numeric data.

ii) LIMIT CHECK

To check whether a particular field has got less than or greater than a prespecified value (selectable through data) e.g. in NIH, no employee shall have a pay greater than Rs.5000/- and less than Rs.500/-. A data in pay falling outside this range is sure to be invalid.

iii) SUM TOTAL CHECK

To perform the sum total of some field along all the records at particular intervals and check that sum of all the sum totals is the same as entered total in the last record.

For instance, in IN\_SALARIES\_FILE, TSAL (Total Salaries) should be equal to the sum of the other fields contributing to salary.

iv) CODE CHECK

To check for certain characters within a field, that there should be some predecided characters and nothing more than that.

The algorithm for validation routine is given here. Corresponding to each of the three input files, PER\_REC\_FILE\_ED, IN\_SALARIES\_FILE\_ED, IN\_RECOVERY\_FILE\_ED, three error files on disk are generated.

These are.

- i) ERROR\_1\_FILE for PER\_REC\_FILE\_ED
- ii) ERROR\_2\_FILE for IN\_SALARIES\_FILE\_ED
- iii) ERROR\_3\_FILE for IN\_RECOVERIES\_FILE\_ED

These error files will contain the name of the errored record alongwith the record.

#### 5.4.2 Validation routine algorithm

##### START

Open all raw data files,  
initialize record number.

##### READ\_1

Read next record of PER\_REC\_FILE,  
Perform validation checks on each field of record.

if

error in any record field,

then

copy field name and record no. in ERROR\_1\_FILE,  
increment record no.

else

increment record no.

if

all records in the PER\_REC\_FILE checked

then

go to Next-Read

else

go to Read-1.

##### NEXT\_READ

initiatize record no.



READ\_2

Read next record of IN\_SALARIES\_FILE

Perform validation checks on each field of record.

if

error in any record-field,

then

copy field name and record no. in ERROR\_2\_FILE,

increment record no,

else

increment record no.

if

all records in IN\_SALARIES\_FILE checked

then

go to Next Read-1

else

go to Read-2

NEXT\_READ\_1

initialize record no.

READ\_3

Read next record of IN\_RECOVERY\_FILE

Perform validation check on each field of record

if

error in any field-record.

then

copy field name and record-no. in ERROR\_3\_FILE,

increment record no.

else

increment record no.

if

all records in IN\_RECOVERY\_FILE checked

then

go to last\_check

else

go to Read-3

#### LAST\_CHECK

Check ERROR\_1\_FILE, ERROR\_2\_FILE, ERROR\_3\_FILE for error in records

if

error files contain 'NO\_ERRORS' message

then

close all files

use the three raw-data files as master files,

else

correct the errored data and rerun the program.

At the end of first run errored records are replaced and programs rerun. This process continues till all the identifiable errors are eliminated.

6.0 TEST DATA  
S1.DAT

S1.DAT

00449,250000,000000,232500,000000,000000,010000,025000,000000,000000,000000,000000,0000  
07348,225000,015000,194250,000000,000000,010000,022500,000000,000000,000000,000000,0058  
15240,168000,024300,131940,000000,000000,008000,016800,000000,000000,000000,000000,0019  
15550,135000,024300,120700,000000,000000,007000,013500,000000,000000,000000,000000,0085  
15691,135000,024300,120700,000000,000000,007000,013500,000000,000000,000000,000000,0000

S2.DAT

00449,050000,000000,025000,050000,000000,002000,000000,000000,000000,000000,024000,028393,000000,001500,017288  
07348,000000,036800,000000,025000,008000,000000,000000,000000,000000,000000,014000,006729,000000,001000,000000  
15240,000000,065000,000000,015000,008000,000000,000000,005000,000000,000000,012500,008439,000000,001000,000000  
15550,000000,023500,000000,000000,008000,000000,000000,000000,000000,000000,013000,006558,000000,000700,000000  
15691,040000,000000,000000,000000,000000,000000,000000,012400,000000,000000,013000,007014,000300,000700,000000

S3.DAT

00449, SATISH CHANDRA, DIRECTOR, 161/1  
07348, S M SETH, SCIENTIST F, 140/2  
15240, P V SEETHAPATHI, SCIENTIST E, 140/3  
15550, K S RAMASHASTRI, SCIENTIST C, 150/27  
15691, K ETHIRAJAN, SCIENTIST C, 150/30

## 7.0 EXAMPLE CALCULATION

GROSSP.DAT

SALARY BILL NO: D/N,I,H, FOR THE MONTH OF MAR' 86  
GROSS PAY OF N,I,H, EMPLOYEE

S.NO.	AC/NO	NAME OF EMPLOYEE	DESIGNATION	BASIC-PAY	D.A	A.D.A	REF,ALL	HRA	IT,RL1	IT,RL2	W.A	SP-PAY	MISC	TOTAL
1	449	SATISH CHANDRA	DIRECTOR	2500,00		2325,00			100,00	250,00				5175,00
2	7348	S M SETH	SCIENTIST F	2250,00	150,00	1942,50			100,00	225,00				4667,50
3	15240	P V SEETHAPATHI	SCIENTIST E	1680,00	243,00	1319,40			80,00	168,00				3490,40
4	15550	K S RAMASHASTRI	SCIENTIST C	1350,00	243,00	1207,00			70,00	135,00				3005,00
5	15691	K ETHIRAJAN	SCIENTIST C	1350,00	243,00	1207,00			70,00	135,00				3005,00
TOTAL				9130,00	879,00	8000,90			420,00	913,00				19342,90

DEDCTN.DAT

DEDUCTION SHEET FOR THE MONTH OF MAR ' 86  
 \*\*\*\*\*

S,N	PF/NO	OPF	NPF	PFAD	I.TAX	GIS1	GIS2	GIS3	CONAD	FESAD	FANAD	HRENT	E/W,CH	FBF	CLUB	OTHER	TOTDED	NET-AMT
1	500.00			250.00	500.00	20.00						240.00	283.93	15.00	172.88	1981.81	3193.19	
2	58	368.00		250.00	80.00							140.00	67.29	10.00		915.29	3752.21	
3	19	650.00		150.00	80.00	50.00						125.00	84.39	10.00		1149.39	2341.01	
4	85	235.00		80.00								130.00	65.58	7.00		517.58	2487.42	
5	400.00							124.00				130.00	70.14	3.00	7.00	734.14	2270.86	
TOTAL	900.00	1253.00	250.00	900.00	240.00	20.00	174.00					765.00	571.33	3.00	49.00	172.88	5298.21	14044.69

## ACCOUNT.DAT

S.NO	NAME	SB.A/C NO.	NET AMOUNT
1	SATISH CHANDRA	449	3193.19
2	S M SETH	7348	3752.21
3	P V SEETHAPATHI	15240	2341.01
4	K S RAMASHASTRI	15550	2487.42
5	K EHIRAJAN	15691	2270.86
	TOTAL		14044.69



INSNCE.DAT

S.NO	NAME	SB,A/C NO.	GR,INS
1	S M SETH	7348	80,00
2	P V SEETHAPATHI	15240	80,00
3	K S RAMASHASTRI	15550	80,00
TOTAL			240,00

PROFND.DAT

SCHEDULE OF PROVIDENT FUND DEDUCTION FOR MAR' 86

S.NO	PF.AC.NO	NAME OF EMPLOYEE	DESIGNATION	PAY	PF SUBS.	PF ADVANCE	TOTAL
1	58	S M SETH	SCIENTIST F	2250.00	368.00		368.00
2	19	P V SEETHAPATHI	SCIENTIST E	1680.00	650.00		650.00
3	85	K S RAMASHASTRI	SCIENTIST C	1350.00	235.00		235.00
TOTAL							1253.00

GRADED.DAT

S.NO	HOUSE NO.	NAME	HOUSE RENT	EL. CHARGES
1	161/1	SATISH CHANDRA	240.00	283.93
2	140/21	S M SETH	140.00	67.29
3	140/3	P V SEETHAPATHI	125.00	84.39
4	150/27	K S RAMASHASTRI	130.00	65.58
5	150/30	K ETHIRAJAN	130.00	70.14
TOTAL			765.00	571.33

CLUBSC.DAT

S.NO	NAME	CLUB SUBS.
1	SATISH CHANDRA	15.00
2	S M SETH	10.00
3	P V SEETHAPATHI	10.00
4	K S RAMASHASTRI	7.00
5	K ETHIRAJAN	7.00
TOTAL		49.00

NATIONAL INSTITUTE OF HYDROLOGY

SHRI/DR/SMT. SATISH CHANDRA  
DIRECTOR

AC. NO. 00449

PAYSLIP FOR THE MONTH OF MAR' 86

SALARIES AND ALLOWANCES		RECOVERIES		REMARKS
1. BASIC PAY	RS. 2500.00	1. O. PROV. FUND	RS. 500.00	REMARKS:
2. DEARNESS ALLOWANCE	RS.	2. N. PROV. FUND	RS.	
3. ADDL. DEARNESS ALLOWANCE	RS. 2325.00	3. RPFA	RS. 250.00	
4. DEPUTATION ALLOWANCE	RS.	4. INCOME TAX	RS. 500.00	
5. HOUSE RENT ALLOWANCE	RS.	5. GROUP INSURANCE	RS.	
6. INTERIM RELIEF1	RS. 100.00	6. G.I.S.	RS. 20.00	
7. INTERIM RELIEF2	RS. 250.00	7. COEIS.	RS.	
8. WASHING ALLOWANCE	RS.	8. CONVEY. ADVANCE	RS.	
9. SP-PAY	RS.	9. FESTIVAL-ADV.	RS.	
10. MISCELLANEOUS	RS.	10. FAN ADVANCE	RS.	
		11. HOUSE RENT	RS. 240.00	
		12. ELECTRICITY CHARGES	RS. 283.93	
		13. FBF	RS.	
		14. CLUB SUBSCR.	RS. 15.00	
		15. OTHERS	RS. 172.88	
GROSS SALARY =	RS. 5175.00	TOTAL RECOVERIES =	RS. 1981.81	

NET AMOUNT PAYABLE = RS. 3193.19

## 8.0 RECOMMENDATIONS

This MIS package is designed for the purpose of payroll accounting. The tasks which are performed using this package are:

- 1) Validation of incoming raw data and creation of three master files.
- 2) Information retrieval from the master files for the generation of monthly payroll.
- 3) Maintenance of master files.

The programs corresponding to the above three tasks have been written and executed correctly. Hence, a part of payroll packages for the production of payroll is complete.

## REFERENCES

1. George J.Brabb,' Computers and Information Systems in Business'.
2. Robert J.Condon,' Data Processing with Applications'.
3. Man Mohan Singh,' Design and Development of An Accounting Software Package': M.E.Thesis,U.O.R.,1981.
4. Om Prakash Verma,'Design and Implementation of General Purpose Validation Package VALPAK' : M.E.Thesis,U.O.R.,1982.
5. COBOL-68 Language Reference Manual,Digital Equipment Corporation, Maynard,Massachusetts,1978.