OUTLINE

Code programs for TPPs and batch jobs, compile them, link them, and pre-initialize them.

INPUT

1) WD-1.1.2   Item Description
2) WD-2.2.4   Screen Layout
3) WD-2.2.5   Print Layout
4) WD-2.3.1   Program Specification
5) WD-2.3.3   Program Logic Design

WORK POINT

1) Refer to "NEC VIS GUIDEBOOK" Chapter.8 and Appendix-4

2) Refer to "NEC RIQS GUIDEBOOK" , "NEC VIS Supplementary Handout", and "NEC RIQS Supplementary Handout".

3) Set the rule of the comment description, the way of indentation, etc, in the phase of coding.

4) After coding programs, print out the source lists, debug them on the desk by the coder, and review them in the group. The method of walkthrough may be useful in the group review.

5) After the group review, ammend the programs clearing the bugs which are found in the review, and compile them. The TEST parameter should be specified when you compile for the debugging. The COPYLIB parameter shouldn't be forgotten.

6) After compiling programs, assure that there is no compile error, and link them. LINKTYPE=SUBV should be specified for the TPPs.

7) After linking programs to LMs, pre-initializing is needed. Pre-initializing is done by "PLMMTN" and then LMs (Sub-LMs) are stored in the VMM space.

ACTIVITY 4.3	WORKSET 4.3.2
Programming	Module Test

WORK DOCUMENT Module Test	FORM SHEET NO. F-4.1.1
Specification	

OUTLINE

1) Test whether the programs fulfill the requests specified
2) Conduct the test based on the Module Test Specification.
   (WD-4.1.1)

INPUT

1) WD-4.1.1 Module Test Specification
2) WD-2.3.1 Program Specification
3) WD-2.3.3 Program Logic Design

WORK POINT

1) The test results should be written down as soon as possible.

2) The person who coded the program can add the tests items into the Module Test Specification.

3) If the result of the test is OK, fill in the name of of the person who checked and the date of checking. If the result is not good, sign "NG" in the OK/NG column.

4) The test result should be numbered, kept and described in the remarks column.

5) After the test, check all results, and remember to keep them until the end of the presentation.

6) If some trouble occurred, fill in the trouble management sheet (FC-98). At the tme of trouble, remember to fill in the person name who will trace the trouble.

7) The all troubles in the trouble management sheet must be traced and if there is some amendment, re-tests is needed. The result of the re-test must also be carefully checked.

MODULE TEST SPECIFICATION   F-A.1.1

WRITTEN BY	DATE WRITTEN	REV.	PAGE
Ho WN	29/2/88	1	1/26

PROGRAM NAME: SRS1101   WS-1.1.1 / WS-4.3.2

PROGRAM DESCRIPTION: COURSE ENQUIRY

TEST NO.	TEST METHOD		TESTING			ESTIMATED RESULTS	VERIFIED		OK/NG	REMARKS
	COMP.	DESK	ITEM	CONDITION	DATA		BY (NAME)	DATE (DD/MM)		
1.	✓	✓	Key Check (Valid)	• COURSE Table 1.1 Input Course No.	AP01	1st Page of SR0111	A	20/3/88	OK	
2.	✓	✓	Paging Check (Loop)	• SUBJECT Table 2.1 With 1 record 2.2 With 2 records 2.3 With 5 records 2.4 With 30 records 2.5 With 0 record		1 page 1 page 3 page 15 page No-SUBJECT message	A A A A	29/3/88 29/3/88 29/3/88 29/3/88	OK OK OK OK NG	No message : invalid ....
3	✓	✓	Key Check (Invalid)	• COURSE Table 3.1 Input Course No.	{ xxxx " " (Blank)	COURSE-Not-found message Prompt message	A A	29/3/82 20/3/88	OK OK	

```
SYSTEM DEVELOPMENT
PHASE              SYSTEM CONSTRUCTION
```

```
ACTIVITY  4.4                        WORKSET  4.4.1
          User Manual                         User Manual
                                              Planning
```

```
WORK DOCUMENT (System  Construction    FORM SHEET NO. (FC-11)
              Schedule)
```

OUTLINE

Students work out a User Manual plan after looking into
informations described below.
Practically, this workset should be combined with workset
4.0.1 "System Construction Planning".

SCOPE OF STUDENTS' WORK

1)   Students perform only those tasks indicated with O in
     the following table.

2)   As for chapter. 3 to 5 of User Manual, students cover
     only those programs which they actually developed.

CONTENTS of User Manual

```
1. MACHINE OPERATION FOR NORMAL CASE
       1.1 Centre operation
            1.1.1 Turning on power
            1.1.2 System start-up
            1.1.3 Job execution    ----------------- O
            1.1.4 Job termination   --------------- O
            1.1.5 File backup procedure ----------- O
            1.1.6 System shut-down
            1.1.7 Turning off power
       1.2 Terminal operation
            1.2.1 Preparation   ------------------- O
            1.2.2 Terminal start-up -------------- O
            1.2.3 Terminal shut-down  ----------- O
2. MACHINE OPERATION FOR ABNORMAL CASE
       2.1 Centre operation - SYSTEM CRASH
            2.1.1 System Restart
            2.1.2 Collection of crash dump
            2.1.3 Job Recovery  ----------------- O
       2.2 Centre operation - FILE DESTRUCTION
            2.2.1 File status analysis ---------- O
            2.2.2 File Recovery
                   - Total destruction of file ---- O
            2.2.3 File Recovery
                   - Partial destruction of file --- O
       2.3 Terminal operation
3. ONLINE PROGRAM OPERATION   ----------------- O
4. BATCH PROGRAM OPERATION   ------------------ O
5. MESSAGE LIST    ------------------------- O
```

USER MANUAL WORKSETS

User Manual work consists of the following worksets.

Workset 4.4.1 User Manual Planning
Workset 4.4.2 Machine Operation For Normal Case
    This covers chapter. 1 of User Manual.
Workset 4.4.3 Machine Operation For Abnormal Case.
    This covers chapter. 2 of User Manual.
Workset 4.4.4 Application Program Operation
    This covers chapter. 3 to 5 of User Manual.

INFORMATION FOR WORK PROCEDURE

1) An incomplete draft of User Manual is given to students.

2) Students are required to complete the above draft and to submit a whole set of User Manual.

3) In addition to the above draft, some examples are given to students for Workset 4.4.4.

WORK POINT

1) Look through above-mentioned User Manual worksets.

2) Assign the work to each group member.

3) Estimate time necessary for each work.

4) Put User Manual plan into System Construction Schedule (WD-4.0.1).

CONTENTS

1.   MACHINE OPERATION FOR NORMAL CASE.

   1.1   Center operation.

       1.1.1   Turning on power.

       (1)   Turn on Power Switch of the distribution
              board. (1st : 200V switch, 2nd : 100V switch)

       (2)   Set the USER-MNT KEY on the control panel to
              "USER"

       (3)   Check if the POWER OFF lamp on the control
              panel is lit up.

       (4)   Press the POWER-ON switch on the control
              panel.

       (5)   Check if the POWER OFF lamp on the control
              panel goes off.

       (6)   Check if the POWER ON lamp on the control
              panel is lit up.

       (7)   Check if the POWER FAULT lamp on the control
              panel is out.

       (8)   Check if the SEQUENCE lamp on the control
              panel is on.

       (9)   Check if "READY" appears on the first display
              line.

       1.1.2   System start-up

       (1)   Wait for SOP (system operation panel) to
              appear on the console.

```
-------------------------------------------------------------
     I-IOP         S-SKIP          F-FUNCTION
     0             *0 OF           0 SYS INITIALIZE
                   1 ON            1 STORAGE LOAD
                                   2 SYSTEM RESTART
     C-CHANEL      L-LOAD 0/1      3 SYSTEM RESET
     00            01

     D-DEVICE
     01
-------------------------------------------------------------
                                        (DBG NOT READY)
```

Wait for this message to disappear.

(2)   Enter F0 and press "EXECUTE" key.
READY and INITIALIZE will appear on the
screen. Wait for the menu to go off.

(3)   Press <FNC> key and <PF5> key at a time to
return to SOP screen.
Wait for LOAD to appear on the screen.

(4)   Enter F1 and press "EXECUTE" key.

This operation starts the initial system
loading process. When it is started, the
console mode is automatically changed from
SOP to the console screen.
By deleting LOAD display, the machnine shows
entry into the intitial system loading
process.

(5)   Starting initial system load.

If the previous operation was terminated due
to the shut down, then the following message
appears:

```
------------------------------------------------
PREVIOUS PARAMETER IS PARAM00
SYSTEM PREVIOUS STATUS ON YY-MM-DD AT hh:mm:ss
SHUTDOWN
PARAMETERS: parm 1   parm 2   parm 3   parm 4
            parm 5   parm 6   parm 7   parm 8
INIT01  : OPTIONS ?
?R?
------------------------------------------------
```

Enter COLD or WARM and press "EXECUTE" key.

COLD: The COLD command initializes all
system-work-files used in the previous
operation, and restarts the system.
When the COLD command is input, jobs
and job outputs remaining from the
previous operation disappear.

WARM: The WARM command is input to execute
and print out names of jobs remaining
from the previous operation, and
restarts the system.
When neither WARM command nor COLD
command is input, the system parameter
value (WARM) is selected.

(6)   Next message is displayed as follows:

```
-------------------------
INIT87 : OPTIONS ?
-------------------------
```

Then press "EXECUTE" key.

(7)   Termination of the initial system load.

When the initial system load is terminated,
the following message is displayed to
indicate that the operating system is ready
for operation.

```
------------------------------------------------
hh:mm  ACOS-4/MVP XE   VERSION R.2.11 IS READY
       COPYRIGHT (C) NEC CORPORATION 1985, 1986
------------------------------------------------
```

Now, the operator can start job execution.

(8)   In addition to the above, when using on-line
jobs, confirm if MESSAGE CONTROL SYSTEM is
activated. The following message should be
displayed if MCS is activated

```
---------------------------
MCNW20  MCS ACTIVE NOW
---------------------------
```

The command AM : registered in the CATALOG
COMMAND FILE and is auto automatically executed
after initial system load.

1.1.3   Job execution

(1)   Execute ATSS and press "EXECUTE" key.

(2)   Execute VIS job.
```
-------------------------------------------------
|      to be carried out by students.           |
-------------------------------------------------
```

1.1.4   Job termination

(1)   Terminate ATSS.

        a. Enter CT DS and press "EXECUTE" key to
            confirm if there are any other ATSS
            session.

        b. Enter a command as follows :

            CT SD N --- normal shut-down of ATSS

            CT SD E --- emergency shut-down of ATSS

(2)   Terminate VIS.

```
-------------------------------------------------
|           to be carried out by students.      |
-------------------------------------------------
```

1.1.5   File backup procedure

```
-------------------------------------------------
|           to be carried out by students.      |
-------------------------------------------------
```

1.1.6   System shut-down

(1)   Enter the following SD(SHUT-DOWN) command to
        shut down the system.

            SD N --- normal shut-down of the system

            SD E --- emergency.shut-down of the
                     system

(2)   The following message indicates that the SD
        command has been accepted.
```
-------------------------------------------------
hh:mm SHUTO1 (EMERGENCY) SHUTDOWN REQUEST ACCEPTED
-------------------------------------------------
```

(3)   Termination of the system shutdown operation
        is indicated by the following message.
```
-------------------------------------------------
**:** AVAIO2 SHUTDOWN TERMINATED
-------------------------------------------------
```

(4)   System reset
        Press <FNC> key and <PF5> key at a time to
        return to SOP screen.

        Enter F3 and press "EXECUTE" key.

1.1.7   Turning off power

(1)   Press the POWER OFF switch on the control
       panel.

(2)   Check if the POWER ON lamp on the
       control panel is out.

(3)   Check if the POWER OFF lamp on the control
       panel is on.

(4)   Check if the SEQUENCE lamp on the control
       panel is on.

(5)   Check if power for the peripheral equipment
       is off.

(6)   Turn off the Power Switch of the distribution
       board. (1st : 100V switch, 2nd : 200V switch)

1.2   Terminal operation

1.2.1   Preparation

         | to be carried out by students. |

1.2.2   Terminal start-up.

         | to be carried out by students. |

1.2.3   Terminal shut-down

         | to be carried out by students. |
         ----

2.   MACHINE OPERATION FOR ABNORMAL CASE

2.1   Centre operation - SYSTEM CRASH

SYSTEM CRASH is handled by IVM (Integrity Violation
Monitor). If it is possible, dump main memory image
onto magnetic disk. The system is stopped after
outputting an appropriate message onto the console. An
alarm will be triggered.
The alarm tone can be stopped by pressing the AUDIO
STOP switch.

2.1.1   System Restart

The following appears on the screen after the sys-
tem is restarted automatically.

SYSTEM RESTARTED BY RE_ISL
PREVIOUS PARAMETER IS PARAM00
SYSTEM PREVIOUS STATUS ON YY-MM-DD AT hh:mm:ss

Cause of the crash or termination format

PARAMETERS: parm 1   parm 2   parm 3   parm 4
             parm 5   parm 6   parm 7   parm 8

However, in case of SYSTEM HANG-UP, follow these steps:

a.   Press <FNC> key and <PF5> key at a time, then SOP
     appears on the console.

b.   Enter F2 and press "EXECUTE" key.

Then, the system is forced into SYSTEM CRASH and
restarted automatically.

2.1.2   Collection of crash dump.

After ACOS-4 is ready, collect CRASH-DUMP
using $TDUMPMTN JCL.
Keep console-logging-list together with
CRASH-DUMP.
-   Write down CRASH-CODE, parameters and the
    situation of system crash.

2.1.3   Job Recovery

:   to be carried out by students.   :

2.2   Center operation - FILE DESTRUCTION.

2.2.1   File status analysis

:   to be carried out by students.   :

2.2.2   File Recovery - Total destruction of file.

:   to be carried out by students.   :

2.2.3   File Recovery - Partial destruction of file.

:   to be carried out by students.   :

2.3   Terminal operation.

(1)   Check if the transaction is completed or not.

(2)   Try again an operation according to the above (1).

3. ONLINE PROGRAM OPERATION

```
------------------------------------------------------------
|                    to be carried out by students.        |
------------------------------------------------------------
```

4. BATCH PROGRAM OPERATION

    (1) Batch jobs are activated from centre-console or ATSS command.
The following shows a job execution format from centre-console.

        RJ XXXXXXX IL=(JSI.ILLIB)

    (2) Collect the result of batch jobs. (SYSOUT)

```
------------------------------------------------------------
|                    to be carried out by students.        |
------------------------------------------------------------
```

5. MESSAGE LIST

```
------------------------------------------------------------
|                    to be carried out by students.        |
------------------------------------------------------------
```

```
SYSTEM DEVELOPMENT
PHASE                    SYSTEM CONSTRUCTION
```

```
ACTIVITY  4.4                         WORKSET  4.4.2
          User Manual                          Machine
                                               Operation For
                                               Normal Case
```

```
WORK DOCUMENT ( User Manual )         FORM SHEET NO. ( Free
                                               Format)
```

OUTLINE

This workset covers chapter. 1 "Machine Operation For Normal Case" of User Manual.

INPUT

1)   Reliability Specification : Guidebook Section 3.6

2)   Resource Allocation : Guidebook Section 3.8

3)   WD-2.2.3 Terminal Operation Specification

4)   WD-3.2.2 Terminal Attribute

5)   WD-3.2.3 Terminal Control Method

WORK POINT

1)   No example is given for this workset.
2)   Followings are suggestions for User Manual Sections to be produced by students.

Section 1.1.3 Job Execution

    - How (and from where) to activate VIS Job?
    - How (and from where) to establish VIS applications?

Section 1.1.4 Job termination

    - Termination procedure.
    - How to check if jobs are terminated?

Section 1.1.5 File backup procedure

    Consider the following points, using "Reliability Specification" (Guidebook Section 3.6) as a guide.

        - Files to be saved.
        - Type, the number and media-name of save media.
        - The number of generation to be kept.
        - Timing of save-job execution.
        - Save-job execution procedure.

Section 1.2.1 Preparation

       - Indicating terminals to be used.
       - Description of printer paper (general form or
         specific form).

Section 1.2.2 Terminal start-up

     Specify how to start up the following terminals :
       - Master terminal
       - Logging terminal
       - Application terminal

Section 1.2.3 Terminal shut-down

       - Checking if all the transactions are completed
       - Shut-down procedure for the above terminals.

ACTIVITY 4.4	WORKSET 4.4.3
User Manual	Machine Operation For Abnormal Case

WORK DOCUMENT (User Manual)	FORM SHEET NO. (Free Format)

OUTLINE

This workset covers chapter. 2 "Machine Operation For Abnormal Case" of User Manual.

INPUT

1) Reliability Specification : Guidebook Section 3.6
2) WD-3.3.2 System Failure Disposition Specification
3) WD-3.3.3 I/O Failure Disposition Specification
4) WD-3.3.4 Program Failure Disposition Specification

WORK POINT

1) No example is given for this workset.
2) Followings are suggestions for User Manual sections
    to be produced by students.

Section 2.1.3 Job Recovery

    Specify the followings.
        - VIS jobs to be executed.
        - Items to be confirmed after recovery job is
          completed.

Section 2.2.1 File status analysis

    Judge the followings.
        - Whether file destruction has really happened?
        - Whether destruction is total or partial one?

Section 2.2.2 File Recovery - Total destruction of file

    Describe File Recovery procedure in case of total
    destruction of file.

Section 2.2.3 File Recovery - Partial destruction of file

    Describe File Recovery procedure in case of total
    destruction of file.

```
SYSTEM DEVELOPMENT
PHASE              SYSTEM CONSTRUCTION
```

```
ACTIVITY  4.4                          WORKSET  4.4.4
          User Manual                           Application
                                                Program
                                                Operation
```

```
WORK DOCUMENT (User Manual )           FORM SHEET NO. (Free
                                                       Format)
```

OUTLINE

This workset covers the following chapters of User Manual.

    Chapter. 3 ONLINE PROGRAM OPERATION
    Chapter. 4 BATCH PROGRAM OPERATION
    Chapter. 5 MESSAGE LIST

INPUT

    1)   WD-1.2.1   Man-Machine Interface Specification
    2)   WD-2.2.3   Terminal Operation Specification
    3)   WD-2.2.4   Screen Layout
    4)   WD-2.3.1   Program Specification
    5)   WD-2.3.3   Error Message List
    6)   WD-3.2.3   Terminal Control Method
    7)   Screen Layout produced by using IMFD

WORK POINT

    1)   Produce chapter.3 referring to example. 1.
    2)   Produce chapter.4. No example of chapter.4 is given.
    3)   Produce chapter.5 referring to example. 2.
    4)   Students cover only those programs which they actually
          developed, although the above examples describe
          Students' Award module.

<< Example. 1 >> (1/7)

3. ONLINE PROGRAM OPERATION

3.1 General operation flow of
JSI Student Administration Subsystem.

JSI AWARD TYPE LIST — PF6

CONFIRMATION MESSAGE — PF6

CONFIRMATION MESSAGE — PF6

CONFIRMATION MESSAGE — PF6

JSI AWARD ENTITLED STUDENT LIST — PF6

PF6

CONFIRMATION MESSAGE

ADD AN AWARD TYPE

MODIFY AN AWARD TYPE

DELETE AN AWARD TYPE

CONFIRMATION MESSAGE

INQUIRY SCREEN

AWARD TYPE INFORMATION

AWARD TYPE UPDATE

AWARD STUDENT INFORMATION

AWARD STUDENT INFORMATION

JSI STUDY AWARDS MENU

PF6

[1] GCE "A" LEVEL INFORMATION
[2] STUDENT ENTRANCE MENU
[3] COURSE CO-ORDINATION
[4] EXAMINATION MENU
[5] STUDY AWARDS MENU

JSI STUDENT ADMINISTRATION SUBSYSTEM

3. 2 General explanation of screen layout.

The followings describe common areas of the screen.
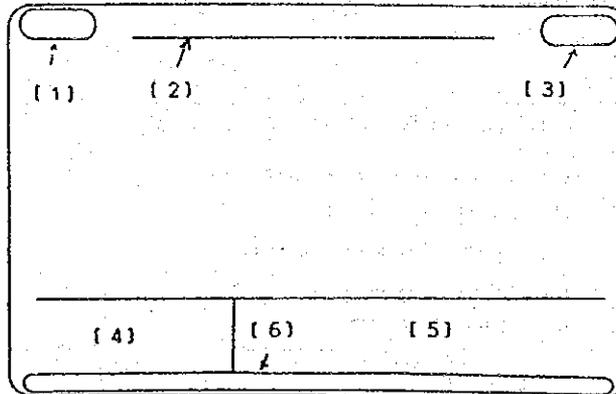
[1]   Transaction code (Some screens don't have this.)

[2]   Title of screen

[3]   Current date

[4]   Operation area

This area provides operation control for
current screen.

[5]   Message area

Display area for messages output by
processing programs.
Refer to "Message List" in this manual for
further explanation.

[6]   VIS message area

Display area for system messages output by
VIS. Refer to MMF manual "NEC RIQS
SUPPLEMENTARY & DIAGNOSTIC MESSAGES
GUIDEBOOK" for further explanation.

<< Example. 1 >> (2/5)

3.3 Students' Awards Module operation.

OPERAION.1

   JSI STUDENT ADMINISTRATION SYSTEM menu is displayed automatically upon connection to VIS.

   Enter option.

```
THENU1              J S I   STUDENT  ADMINISTRATION SYSTEM         88-02-11


            [1]  GCE 'A' LEVEL INFORMATION

            [2]  STUDENT ENTRANCE MENU

            [3]  COURSE CO-ORDINATION MENU

            [4]  EXAMINATION MENU

            [5]  STUDY AWARDS MENU


            ENTER SELECTED NO.        □


    <OPERATION AREA>                      <MESSAGE AREA>
    PF14 - COMMAND
    PF15 - LOGOUT


R IDLE    KBO            ·044                      R3.00   R·
```
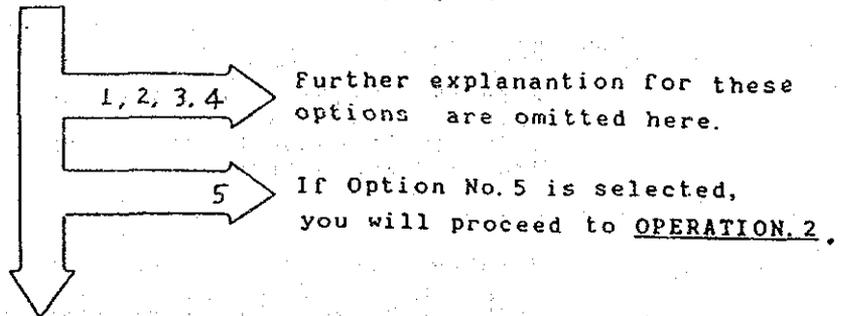
      1, 2, 3, 4   Further explanantion for these options are omitted here.

      5   If Option No. 5 is selected, you will proceed to OPERATION.2.

When any other numbers are input, the following error message is displayed in the "MESSAGE AREA".

   E0010 -- NO. OUT OF RANGE

Enter option again.

<< Example. 1 >> (=/ ̄)

OPERATION. 2

　　Enter option, when JSI STUDY AWARDS MENU shown
　　below appears.

```
THEME         J S I   STUDY  AWARDS  MENU                    88-02-11

            (1)  AWARD TYPES INFORMATION

            (2)  AWARD TYPES UPDATE

            (3)  AWARD SELECTION

            (4)  AWARDED STUDENTS INFORMATION




            ENTER SELECTED OPTION      □

 ─────────────────────────────────────────────────────────────────────
    <OPERATION AREA>          |              <MESSAGE AREA>
    PF6 - MENU                |
                              |
 ─────────────────────────────────────────────────────────────────────
  R IDLE    RBO                     044                  R3.00    R'
```
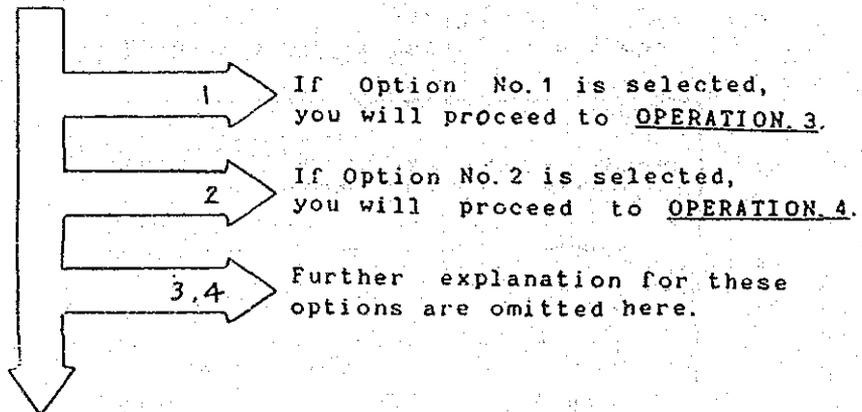

If Option No. 1 is selected,
you will proceed to OPERATION. 3.

If Option No. 2 is selected,
you will proceed to OPERATION. 4.

Further explanation for these
options are omitted here.

When any other numbers are input, the
following error message is displayed in the
"MESSAGE AREA".

　　　E0020 -- NO. OUT OF RANGE

Enter option again.

OPERATION. 3

The following screen is displayed after <u>OPERATION. 2</u>.

```
┌─────────────────────────────────────────────────────────────────┐
│  T15101            J S I   AWARD  TYPE  ENQUIRIES        88-02-11 │
│                                                                   │
│            THIS FUNCTION WILL PRINT A LIST OF AWARD TYPES THAT     │
│                                                                   │
│               ARE AVAILABLE IN J S I                              │
│                                                                   │
│            TO ACTIVATE THIS FUNCTION, PRESS THE SEND KEY          │
│                                                                   │
│                                                                   │
│                                                                   │
│   ─────────────────────────────────┬───────────────────────────  │
│    <OPERATION AREA>                 │          <MESSAGE AREA>     │
│    PF6 -- MENU                      │                             │
│                                     │                             │
│                                     │                             │
│   R IDLE   KBO              024                R3.00     R*       │
└─────────────────────────────────────────────────────────────────┘
```

(1) Switch on the printer connected to the
     terminal in use.

(2) Check if prirter paper is properly set.

(3) Press "SEND" KEY.
     Then the following list is printed.

(4) Press "SEND" key again to print another listing.

(5) Otherwise press <PF6> key to return to <u>OPERATION. 1</u>.

OPERATION. 4

The following screen :: displayed after
OPERATION. 2

```
T15201              J J : AWARD TYPE UPDATE              86-02-13

        (1)    ADD AN AWARD TYPE

        (2)    MODIFY AN EXISTING AWARD TYPE

        (3)    DELETE AN EXISTING AWARD TYPE


        SELECT MODE OF PROCESSING    [ ]

        ENTER AWARD - ID             [     ]




    <OPERATION AREA>          |          <MESSAGE AREA>
    PF6 - MENU                |
                              |
                              |

 R IDLE    KBO              050                    R3.00    R·
```

Enter option for MODE OF PROCESSING.
Enter AWARD-ID data.

The following actions will be taken according to the option
entered for MODE OF PROCESSING.
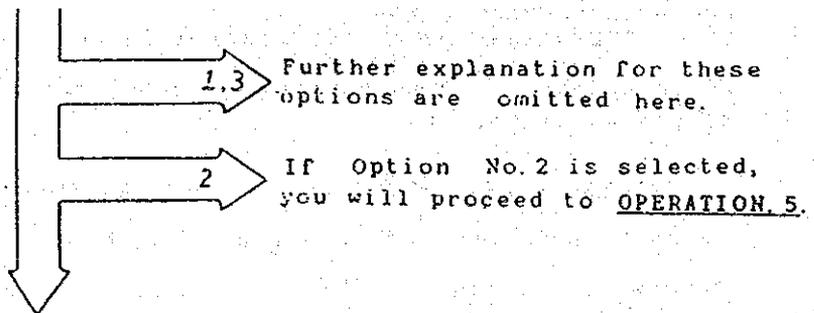
        1,3 >   Further explanation for these
                options are omitted here.

        2   >   If Option No.2 is selected,
                you will proceed to OPERATION. 5.

When any other numbers are input, the following
error message is displayed in the "MESSAGE AREA".

        E0117 -- MODE OF PROCESS ERROR

Enter option again.

OPERATION. 5

If entered AWARD-ID does not exist in the AWARD-
TABLE, an error message is displayed.

E0209 -- AWARD-ID NOT EXIST IN AWARD-TYPE TABLE

Re-enter correct AWARD-ID.

If entered AWARD-ID exists in the AWARD TABLE,
the following screen is displayed.

```
┌─────────────────────────────────────────────────────────────┐
│                    J S I   AWARD  TYPE - MODIFY          88-02-11 │
│                                                               │
│  AWARD ID    NEC       AWARD NAME  [NEC BOOK PRICE    ]   AWARD VALUE $ [000001] │
│  AWARD CONDITION   [4]  ┌─────────────────────┐               │
│                         │ 1 - FIRST   IN CLASS │               │
│                         │ 2 - SECOND  IN CLASS │               │
│                         │ 3 - THIRD   IN CLASS │               │
│                         │ 4 - FOURTH  IN CLASS │               │
│                         │ 5 - FIFTH   IN CLASS │               │
│                         └─────────────────────┘               │
│  AWARD DESCRIPTION     [NEC AWARD FOR THE 4TH STUDENTS IN CLASS      ] │
│                        [                                     ] │
│                                                               │
│                                                               │
│  ┌──────────────────────┬────────────────────────────────────┤
│  │ <OPERATION AREA>      │          <MESSAGE AREA>            │
│  │ III - TERMINATE       │                                    │
│  │                       │                                    │
│  ├───────────────────────┴───────────────────────────────────┤
│  R IDLE   KBO              035                    R3.00    R* │
└─────────────────────────────────────────────────────────────┘
```

Modify necessary items.
Enter "SEND".key when modification is completed.

If an updated item is correct, a confirmation message is
displayed as follows :

M0010 -- AWARD-TYPE UPDATED SUCCESSFULLY (NEC)

Press "SEND" key to continue updating another AWARD TYPE.

Otherwise   press   <PF6>   key to   return   to OPERATION. 1.

If an updated item is wrong, an error message is
displayed as follows :

M0098 -- AWARD CONDITION IS OUT OF RANGE

Re-enter data.

5. MESSAGE LIST

(1) Message display format.

XXXXX -- XXX ... XXX
```
  :     :         .......... - Message (40)
  :     :
  :     :.................. --- Separator (2)
  :                          {Message sequence }
  :..................        {No. (4)          }          Message
                             {                 }          code
                        .....{Message          }(1)
                             {discrimination   }
                             {code             }
                               N: Information
                                  message
                               E: Error message
```
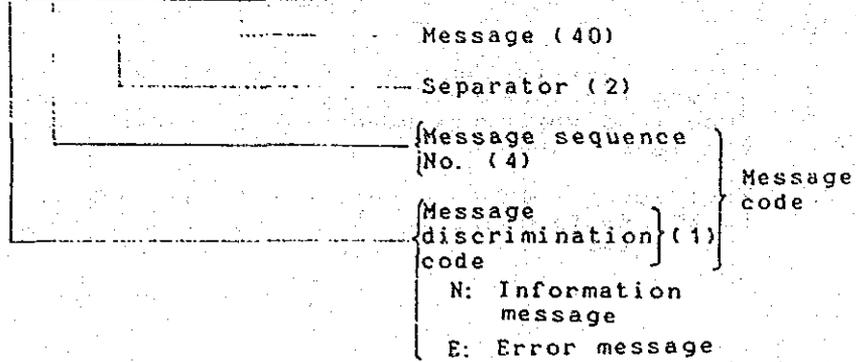
(2) Message list.

Message code	Message	Action to be taken
N0001	STUDENT STATUS UPDATED SUCCESSFULLY	
E0001	COURSE CODE DOES NOT EXIST IN COURSE TABLE	-Course code is not registered in COURSE TABLE. -Enter correct code.

```
SYSTEM DEVELOPMENT
PHASE                SYSTEM TEST
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
ACTIVITY  5.0                      WORKSET  5.0.1
          System Test Planning              System Test
                                            Planning
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
WORK DOCUMENT System Test  Schedule   FORM SHEET NO.  FC-11
```

OUTLINE

1) System test is the test on overall system so as to assure that the system meets various requirements such functions which are specified in general design and the user manual.

2) This workset is to schedule all the work items needed in the system test design (workset 5.1.1) and the system test (workset 5.1.2), in general.

INPUT

1) WD-0.0.1   System Development Schedule
2) WD-4.4   User Manual

WORK POINT

1) List down the test items in general. Such as
   - Software function test.
     (According to the User Manual, list down the functions to test.)
   - Parallel running test of transactions.
   - System fault test (System failure/recovery, media/DB fault/recovery dc.)

2) Estimate the time for planning/preparation/test for each work.

3) Assign the works to the group members.
   If one work item is executed by more than 1 person, which part of work is to be done by whom in the group.

<< Example >>

JSTST	SCHEDULE CHART					REV. 1	PAGE Y/1

TITLE	System Test Schedule

Work Items.	Person in charge	APR 25 (MON)	26 (TUB)	27 (wED)	28 (THU)	29 (FRI)	30	REMARKS
1.1. VIS Startup	A							
1.2. VIS Stop	A							
1.3 Connect AP	B							
1.4 Course Information	C							

WORK SET NO. 5.0.1			WRITTEN BY Ho W:1	DATE WRITTEN 27/2/22

—249—

```
 SYSTEM DEVELOPMENT
 PHASE             SYSTEM TEST
 ---------------------------------------------------------------
 ACTIVITY  5.1                        WORKSET  5.1.1
           System Test Design                  System Test
                                               Specification
 ---------------------------------------------------------------
 WORK DOCUMENT System Test           FORM SHEET NO. F-5.1.1
               Specification
```

__OUTLINE__

Specify the test items precisely, thinking of patterns in
operation according to the user manual, for each test item
in general which is specified in WS 5.0.1

__INPUT__

1) WD-5.0.1   System Test Schedule
2) WD-4.4   User Manual

__WORK POINT__

1) Break down the test items in general listed up in the
   system test schedule phase (workset 5.0.1).
2) Specify the test data used in the system test.
3) Specify the conditions needed for the test items.
4) Specify the confirming material on which results will
   be checked.
5) In the software function test, the test data should
   cover the average value and the limit value.
6) In the parallel running test, the combination of
   transactions must be considered.

F-2.1.1

	SYSTEM TEST SPECIFICATION	WRITTEN BY	DATE WRITTEN	REV.	PAGE
WS-2.1.1 / WS-5.1.1		Ho W N	29/2/88	1	1/5

TEST NAME: Functional Test in Normal Case

TEST NO.	ITEM	TESTING CONDITION	DATA	VERIFIED BY (NAME)	DATE (DD/MM)	CONFIRM MATERIAL	OK / NG	REMARKS
1.	Normal Processing							
1.1.	VIS Start-up							
1.2	VIS Stop							
1.3	Connect Applications	· ADMDIR1 (Enable) · STAPP1 (Disable)	SA command					
	...E Information	· Course Registration (1.3.2) · Course Enquiry (1.1.1)	15 Subjects 30 Subjects					

```
| SYSTEM DEVELOPMENT                                                    |
| PHASE             SYSTEM TEST                                         |
| ACTIVITY  5.1                         WORKSET  5.1.2                  |
|           System Test Design                   System Test           |
|                                                Preparation           |
| WORK DOCUMENT System Test             FORM SHEET NO.  F-5.1.2         |
|               Preparation                                            |
```

OUTLINE

   Specify the preparation items that should be done before
   system testing, schedule them, and work out them.

INPUT

   1) WD-5.0.1   System Test Schedule
   2) WD-5.1.1   System Test Specification
   3) WD-4.4   User Manual

WORK POINT

   1)   You should consider test data for normal and abnormal
        case, JCLs for utilities, batch jobs, and system jobs
        (VISJ, MPJ), process flow description of the centre and
        the terminals, system environment such as work file
        allocation, and the date of each test items to be
        tested (You should think about the sequence between
        test items.)

   2)   The reservation of machine-time is essential for the
        exclusive use of mainframe computer in order to test
        some items such as system failure/recovery test.

   3)   Set the work date for each preparation work item and
        check if the work of the item is completed.

   4)   The procedures of each test item should be prepared.
        For the case of system failure/recovery test, the
        transactions of updating process should be stopped
        at the point of during/after update process by using
        IDSP, before the system failure is made occurred. The
        addresses of stopping transactions should be written
        down.

F-5.1.2

JASTAST	WS-5.1.2	SYSTEM TEST PREPARATION		WRITTEN BY HoWN	DATE WRITTEN 29/2/88	REV. 1	PAGE 1/4

TEST NAME	Course Information Registration (Functional Test)

PREPARATION ITEM	PREPARATION DETAILS	WORK DATE (DD/MM)	CHECK BY	REMARKS
1. Test Data	(1) Normal Data 2 Course Data. Subject number for the courses are: 15 and 30 (Maximum.) The data are the modified data from AP01.	22/3/88 (Data listing up)		
	(2) Limit value test data ① Full non-blank data · COURSE Name (C40) · Name (<30)	23/3/88 (making)		
	(3) Abnormal Data ① Inconsistency · Course-start-date > Course-end-date	23/7/88 (making)		

SYSTEM DEVELOPMENT PHASE	SYSTEM TEST	
ACTIVITY 5.2 　　　System Test	WORKSET 5.2.1 　　　System Test	
WORK DOCUMENT System Test 　　　Specification	FORM SHEET NO. F-5.1.1	

OUTLINE

1) Test whether the system function, quality, and so on, are up to the required standard.

2) Conduct the test based on the system test specification made in workset 5.1.1 and the user manual made in the workset 4.4.

INPUT

1) WD-4.4   User Manual
2) WD-5.1.1 System Test Specification
3) WD-5.1.2 System Test Preparation

WORK POINT

1) Before starting the test, check whether all the preparation works specified in WD 5.1.2 are finished.

2) If the test item is tested, the result should be checked if it is right or not according to the system test specification and the user manual. If the result is checked on the screen, the hard copy should be collected for the important result. The hard copy or the printout list should be numbered and should be kept until the presentation is finished.

3) If some trouble happens, it should be written down in the trouble management sheet (FC-98). The trouble is processed by the programmer afterwards.

4) The user manual is also checked during the system test. The miss on the user manual is also collected in the trouble management sheet and updation of the manual is done afterwards.

F-5.1.1

	SYSTEM TEST SPECIFICATION	WRITTEN BY	DATE WRITTEN	REV.	PAGE
WS-5.1.1 / WS-5.2.1		Ho WN	29/2/88	1	1/5

TEST NAME: Functional Test in Normal Case

TEST NO.	ITEM	TESTING CONDITION	TESTING DATA	VERIFIED BY (NAME)	VERIFIED DATE (DD/MM)	VERIFIED CONFIRM. MATERIAL	OK/NG REMARKS
1.	Normal Processing			—	—	—	—
1.1	VIS Start-up			A	25/3/88	Console sheet	OK
1.2	VIS Stop			A	25/3/88	Console sheet	OK
1.3	Connect Applications	· ADMDIR1 (Enable)	—	A	25/3/88	Hard copy of History	OK
		· STAPP1 (Disable)	SA command	A			

	...e Information	· Course Registration (1.3.2)	15 Subjects
		· Course Enquiry (1.1.1)	30 Subjects

7—2　ミニプロフォームシート

JSIST

MINI-PROJECT

FORM SHEETS

AD01

February 1988

JAPAN SINGAPORE INSTITUTE OF SOFTWARE TECHNOLOGY

A TABLE OF FORMSHEETS

FORMSHEET NO. *	WORK DOCUMENT NAME	SIZE
FC-01	(WS-1.3.2)	A4
FC-02	(WS-2.3.3)	A4
FC-11	(WS-0.0.1)	A3
FC-98	(TROUBLE MANAGEMENT SHEET)	A4
FC-99	(PROBLEM DESCRIPTION SHEET)	A4
F-1.1.1	TABLE SPECIFICATION LIST	A4
F-1.1.2	ITEM DESCRIPTION	A4
F-1.2.1	MAN-MACHINE INTERFACE OUTLINE	A4
F-1.2.2	I/O REQUIREMENT SPECIFICATION	A4
F-1.3.1	SYSTEM HIERARCHY SPECIFICATION	A4
F-1.3.2	PROGRAM SPECIFICATION	A4
F-2.1.1	TABLE SPECIFICATION SHEET	A4
F-2.1.2	FILE MANAGEMENT TABLE	A4
F-2.1.3	USER MANAGEMENT TABLE	A4
F-2.2.1	TRANSACTION LIST	A4
F-2.2.2-1	TRANSACTION AND USER ENVIRONMENT	A4
F-2.2.2-2	TRAFFIC DENSITY CALCULATION	A4
F-2.2.3	TERMINAL OPERATION SPECIFICATION	A4
F-2.2.4-1	SCREEN LAYOUT	A3
F-2.2.4-2	SCREEN I/O ITEM DESCRIPTION	A4
F-2.2.5-1	PRINT LAYOUT	A3
F-2.2.5-2	PRINT ITEM DESCRIPTION	A4
F-2.3.2	PROGRAM FUNCTION DIAGRAM	A4
F-2.3.3	PROCESS DESCRIPTION	A4
F-3.1.1	DBD ATTRIBUTE TABLE	A4

FORMSHEET NO.	WORK DOCUMENT NAME	SIZE
F-3.2.1	VIRTUAL DESTINATION	A4
F-3.2.2	TERMINAL ATTRIBUTE	A4
F-3.2.3	TERMINAL CONTROL METHOD	A4
F-3.2.4	TRANSACTION CLASS	A4
F-3.3.1	JOURNAL FILE SPECIFICATION	A4
F-3.3.2	SYSTEM FAILURE DISPOSITION SPECIFICATION	A4
F-3.3.3	I/O FAILURE DISPOSITION SPECIFICATION	A4
F-3.3.4	PROGRAM FAILURE DISPOSITION SPECIFICATION	A4
F-3.3.5	COMMUNICATION SYSTEM FAILURE DISPOSITION SPEC.	A4
F-3.4.1	CONTROL FILE LIST	A4
F-3.4.2-1	RDB FILE CAPACITY ESTIMATION	A4
F-3.4.2-2	RDIR/RWK CAPACITY ESTIMATION	A4
F-3.4.2-3	DATA FILE LIST	A4
F-4.1.1	MODULE TEST SPECIFICATION	A4
F-5.1.1	SYSTEM TEST SPECIIFCATION	A4
F-5.1.2	SYSTEM TEST PREPARATION	A4

* There are two types of form-sheet as follows :

Type. 1   Form-sheet No. FC-xx   ·· ················   These are commonly used for several
                              ↳ serial No.   worksets.

Type. 2   Form-sheet No. F-x.x.x-x   ···············   These are used only for specified
                              │   ↳ serial No. under   worksets.
                              │   the workset
                              └──────→ workset No.

JSGST	WORK DOCUMENT NAME	REV.	PAGE

WORK SET NO.		WRITTEN BY	DATE WRITTEN

WORK SET NO.	WORK DOCUMENT NAME	WRITTEN BY	DATE WRITTEN	REV.	PAGE

SCHEDULE CHART

PAGE

REV.

TITLE

DATE WRITTEN

WRITTEN BY

WORK SET NO.

TROUBLE MANAGEMENT SHEET

	WRITTEN BY	DATE WRITTEN	REV.	PAGE

NO.	TROUBLE DESCRIPTION	BUG CLASSIFICATION		SOLUTION	PERSON IN CHARGE	DATE(DD/MM)		REMARKS
		PROGRAM /DESIGN	OPERATION /USER MISS			OCCURED	SETTLED	

	PROBLEM DESCRIPTION SHEET	REV.	PAGE

PHASE/MODULE *	
DOCUMENT/PROGRAM *	
REVIEW DATE	
PARTICIPANTS ***	

PROBLEM				SOLUTION PLAN **
NO.	PAGE	LINE	DESCRIPTION	

* : Delete where inapplicable
** : To be left blank when reviewing, filled in by the person in charge of the document/program
*** : To be filled in at the review meeting

		WRITTEN BY	DATE WRITTEN

TABLE SPECIFICATION LIST

WS-1.1.1

WRITTEN BY	DATE WRITTEN	REV.	PAGE

NO.	TABLE NAME	SIZE OF RECORD	NO. OF RECORDS	PRIMARY KEY	SECONDARY KEY

NO.	ITEM NAME	LEVEL NO.	DATA NAME	PIC.	DESCRIPTION

ITEM DESCRIPTION

REV.	PAGE

TABLE NAME

WS-1.1.2

WRITTEN BY	DATE WRITTEN

	MAN-MACHINE INTERFACE OUTLINE					REV.	PAGE

NAME OF PROCESSING	HANDLER	INPUT OR OUTPUT	I/O MEDIA	I/O ITEM	ID OF I/O SPEC.	I/O SPEC. NAME

WS-1.2.1				WRITTEN BY	DATE WRITTEN

JSIST	I/O REQUIREMENT SPECIFICATION	REV.	PAGE
I/O SPEC. NAME	ID OF I/O SPEC.	HANDLER	I/O MEDIA

WS-1.2.2			WRITTEN BY	DATE WRITTEN

	SYSTEM HIERARCHY SPECIFICATION	REV.	PAGE

LEVEL NO.	SUBSYSTEM NAME			REMARKS
	LEVEL 1	LEVEL 2	LEVEL 3	

WS-1.3.1		WRITTEN BY	DATE WRITTEN

JSISST	PROGRAM SPECIFICATION	REV.	PAGE

PROGRAM ID :	MODULE NAME :	PROCESSING CYCLES :	LANGUAGE :

CHART :	PROCESSING OUTLINE :

INPUT/ OUTPUT OR FILENAME	INTERNAL FILENAME	I/O	CHARACTERISTICS				
			CHARACTERS /RECORD	RECORD /BLOCK	ORGANIZA- TION	ACCESS MODE	REMARKS

WS-1.3.2 WS-2.3.1				WRITTEN BY	DATE WRITTEN

	TABLE SPECIFICATION SHEET	REV.	PAGE

TABLE NAME		EXISTING FILENAME	
TABLE NAME IN RDIR		RDB NAME	
HEADER DISPLAY		NUMBER OF RECORD	
		KEEP	

ITEM NAME	DATA NAME IN RDIR (FOR DS/TQF)	ATTRIBUTE		* 2	SCREEN DISPLAY METHOD			
		* 1 CHARA- CTER TYPE	NUMBER OF COLUMN	KEY	INPUT LENGTH	OUTPUT LENGTH	EDIT	REMARKS

REMARKS :

* 1 C: CHARACTER
  Z : NUMERIC

* 2 P : PRIMARY KEY
  S : SECONDARY KEY

WS-2.1.1		WRITTEN BY	DATE WRITTEN

JISIST

WS-2.1.2

FILE MANAGEMENT TABLE

| | | WRITTEN BY | DATE WRITTEN | REV. | PAGE |

NO.	FILE NAME	ALIAS	OWNER (DEFINER)	TYPE (RIQS/STD)	SHARE (ALL/READ/NO)	EFN	VOLUME (CATLGD)	JOURNAL (AJ/BJ/YES/NO/)	REMARKS

USER MANAGEMENT TABLE

WS-2.1.3

NO.	USER NAME	GROUP NAME	OWNER	AUTH	COMD	RDB	RWK	LINE	REMARKS

WRITTEN BY	DATE WRITTEN	REV.	PAGE

PROGRAM DESCRIPTION	TRANS. CODE	TRANS. NAME	TRANS.TYPE	START MODE	INITIAL SCREEN ID	OUTPUT SCREEN/PRID	LINK TYPE	REMARKS

WS-2.2.1

TRANSACTION LIST

WRITTEN BY | DATE WRITTEN | REV. | PAGE

JIS/AST

TRANSACTION AND USER ENVIRONMENT

WS-2.2.2

WRITTEN BY	DATE WRITTEN	REV.	PAGE

TRANS. NAME	FREQUENCY (CYCLE)	PERIODS	TIME-OF-DAY	USER	AP NAME	AP START MODE	REMARKS

TRANS. NAME	TRANS/H (I)	TRANS. DENSITY $\lambda = 1/3600$	FILE I/O COUNT (F)	ACCESS REC. COUNT (R)	CPU TIME (mSEC) (t)	ELAPSED TIME (sec) (T)	TRAFFIC DENSITY $\rho = \lambda T$	REMARKS

WS-2.2.2

TRAFFIC DENSITY CALCULATION

WRITTEN BY	DATE WRITTEN	REV.	PAGE

	TERMINAL OPERATION SPECIFICATION	REV.	PAGE

TRANSACTION NAME	TRANSACTION CODE	PROGRAM DESCRIPTION

WS-2.2.3			WRITTEN BY	DATE WRITTEN

DISPLAY SCREEN LAYOUT

F-2.2.4-1

PROGRAM NAME:

TITLE_____

COMMENT

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

SA322

PAGE_____

JSiSir	SCREEN I/O ITEM DESCRIPTION	WRITTEN BY	DATE WRITTEN	REV.	PAGE
	WS-2.2.4				

ID OF I/O SPEC.

TRANSACTION CODE

ITEM ATTRIBUTES

NO.	POSITION		INPUT/OUTPUT/ PROTECT	ITEM NAME	REPEAT	PIC	COLOR	EDIT	REMARKS
	START LINE	START COL.							

PRINT LAYOUT

COMMENTS

PROGRAM NAME:

PRINT ITEM DESCRIPTION

WS-2.2.5

ID OF I/O SPEC.

	WRITTEN BY	DATE WRITTEN	REV.	PAGE

PROGRAM DESCRIPTION

NO.	POSITION			ITEM NAME	ITEM ATTRIBUTES							RELATED DB ITEM		REMARKS
	START LINE	START COL.	LEVEL NO.		RE-PEAT	PIC	EDIT	UNIT	NEW LINE	NEW PAGE	OTHERS	TABLE /RECORD	COLUMN /ITEM	

JSISsт	WS-2.3.2	PROGRAM FUNCTION DIAGRAM		WRITTEN BY	DATE WRITTEN	REV.	PAGE
PROGRAM ID			PROGRAM DESCRIPTION				

JISIST

WS-2.3.3

PROGRAM NAME

PROCESS DESCRIPTION

	WRITTEN BY	DATE WRITTEN	REV.	PAGE

PROCESSING FUNCTION NAME	INPUT	PROCESSING	OUTPUT

JASIST ● ●

WS-3.1.1

DBD ATTRIBUTE TABLE

WRITTEN BY	DATE WRITTEN	REV.	PAGE

NO.	FILE ID	TYPE (RIQS/STD/)	FILE STAT (ENABL/DISABL)	IO ERROR (CLOSE/NO CLOSE)	EFN (TABLE-IDENTIFIER)	FIL ORG (DIRECT/ISEQ/)	OPEN MD (UP/IN)	REMARKS

	WS-3.2.1		VIRTUAL DESTINATION		WRITTEN BY	DATE WRITTEN	REV.	PAGE
VDF	VD-ID	TYPE	OUTPUT LOCATION	TRANS. NAME	PRINT-ID (PRID)	VDSTAT	REMARKS

	TERMINAL ATTRIBUTE					REV.	PAGE	
USER	TERM. NAME	TYPE	ADT / GPT	CONTROL TERM.	START MODE	INIT. AP	INIT. VD	REMARKS

WS-3.2.2			WRITTEN BY	DATE WRITTEN

	APPLICATION	CONNECTION TERMINAL	CONNECTION METHOD	PF KEY
APPLICATION CONNECTION				
APPLICATION RELEASE				

TERMINAL CONTROL METHOD — REV. — PAGE
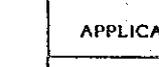
	APPLICATION	TRANSACTION CODE	CONNECTION METHOD	PF KEY
TRANSACTION CONNECTION				

WS-3.2.3 — WRITTEN BY — DATE WRITTEN

PRIORITY	TRANSACTION NAME	CLASS	TASK	TASK START MODE	TASK PRIORITY NUMBER	REMARKS
HIGHEST						
HIGH						
MIDDLE						
LOW						
LOWEST						

WS-3.2.4 TRANSACTION CLASS WRITTEN BY DATE WRITTEN REV. PAGE

F-3.3.1

JISTST	JOURNAL FILE SPECIFICATION	REV.	PAGE

JOURNAL FILE TYPE		JOURNAL FILE ID	
DUPLICATION	SINGLE DUAL	DISPOSITION WHEN END OF FILE REACHED	
RECORD LENGTH		BLOCK LENGTH	
OPV ERROR		I/O ERROR	
FILE NAME			
MEDIA TYPE	MT DISK	NUMBER OF VOLUMES	
DEVICE CLASS		CAPACITY	
MEDIA NAME			

REMARKS

SPA SIZE	
IMA SIZE	
OMA SIZE	

WS-3.3.1		WRITTEN BY	DATE WRITTEN

![JSEST logo]	SYSTEM FAILURE DISPOSITION SPECIFICATION		REV.	PAGE

VIS START MODE	NORMAL START MODE	START MODE WHEN RESTARTING AFTER SYSTEM FAILURE

JOURNAL START MODE	NORMAL START MODE	START MODE WHEN RESTARTING AFTER SYSTEM FAILURE

FILE OR DATA BASE RECOVERY METHOD WHEN A SYSTEM FAILURE OCCURS	

WS-3.3.2		WRITTEN BY	DATE WRITTEN

JSIST	I/O FAILURE DISPOSITION SPECIFICATION		REV.	PAGE

DATABASE OR FILE	I/O FAILURE RECOVERY METHOD	METHOD OF DEALING WITH FAILURE	
		AREA OR FILE DISPOSITION	TRANSACTION DISPOSITION

WS-3.3.3		WRITTEN BY	DATE WRITTEN

TRANSACTION CODE	TRANSACTION NAME	MONITORED TIME		ABNORMAL TERMINATION DISPOSITION
		CPU UTILIZATION TIME (ms)	EXECUTION ELAPSED TIME (s)	

PROGRAM FAILURE DISPOSITION SPEC.

REV.   PAGE

WS-3.3.4   WRITTEN BY   DATE WRITTEN

	COMMUNICATION SYSTEM FAILURE DISPOSITION SPEC.		REV.	PAGE
TRANSACTION CODE	RESPONSE METHOD DISPOSITION WHEN TERMINAL OR LINE FAILURE OCCURS	ALTERNATE DESTINATION WHEN ALTERNATE IS TO BE USED		REMARKS
WS-3.3.5			WRITTEN BY	DATE WRITTEN

CONTROL FILE LIST

WS-3.4.1

WRITTEN BY	DATE WRITTEN	REV.	PAGE

CONTROL FILE NAME	EXTERNAL FILE NAME	ORGANIZATION	RECORD LENGTH	BLOCK LENGTH	RECORD FORMAT	CAPACITY	DEVICE CLASS	MEDIA NAME

NO.	NAME OF USER TABLE	COLUMN (nC)	DATA LENGTH (L)	NO.OF RECORD (N)	CALCULATION OF CAPACITY [(16+nC+L) x N/2,000] ' x LF(1.2)	CAPACITY (Cis)	REMARKS

JISTIST   WS-3.4.2   RDB FILE CAPACITY ESTIMATION   WRITTEN BY   DATE WRITTEN   REV.   PAGE

JSD/SST   WS-3.4.2

RDIR/RWK CAPACITY ESTIMATION

WRITTEN BY	DATE WRITTEN	REV.	PAGE

NO.	NAME OF RESOURCES	UNIT SIZE (BYTES)	AVERAGE NO. OF COL.(n)	NO. OF ENTRIES	CALCULATION OF CAPACITY	CAPACITY (CIs)	REMARKS

DATA FILE LIST

WS-3.4.2

WRITTEN BY	DATE WRITTEN	REV.	PAGE

DATA FILE NAME	EXTERNAL FILE NAME	ORGANIZATION	RECORD LENGTH	BLOCK LENGTH	RECORD FORMAT	CAPACITY	DEVICE CLASS	MEDIA NAME

JSTST	MODULE TEST SPECIFICATION	WRITTEN BY	DATE WRITTEN	REV.	PAGE
WS-4.1.1					

PROGRAM NAME

PROGRAM DESCRIPTION

TEST NO.	TEST METHOD		TESTING			ESTIMATED RESULTS	VERIFIED			REMARKS
	DESK	COMP.	ITEM	CONDITION	DATA		BY (NAME)	DATE (DD/MM)	OK / NG	

		WRITTEN BY	DATE WRITTEN	REV.	PAGE

	WS-5.1.1	SYSTEM TEST SPECIFICATION

JSISI

TEST NAME

TEST NO.	ITEM	TESTING		VERIFIED			OK / NG	REMARKS
		CONDITION	DATA	BY (NAME)	DATE (DD/MM)	CONFIRM. MATERIAL		

JSIST

	WS-5.1.2	SYSTEM TEST PREPARATION	WRITTEN BY	DATE WRITTEN	REV.	PAGE

TEST NAME

PREPARATION ITEM	PREPARATION DETAILS	WORK DATE (DD/MM)	CHECK BY	REMARKS

7—3　ミニプロデータブック
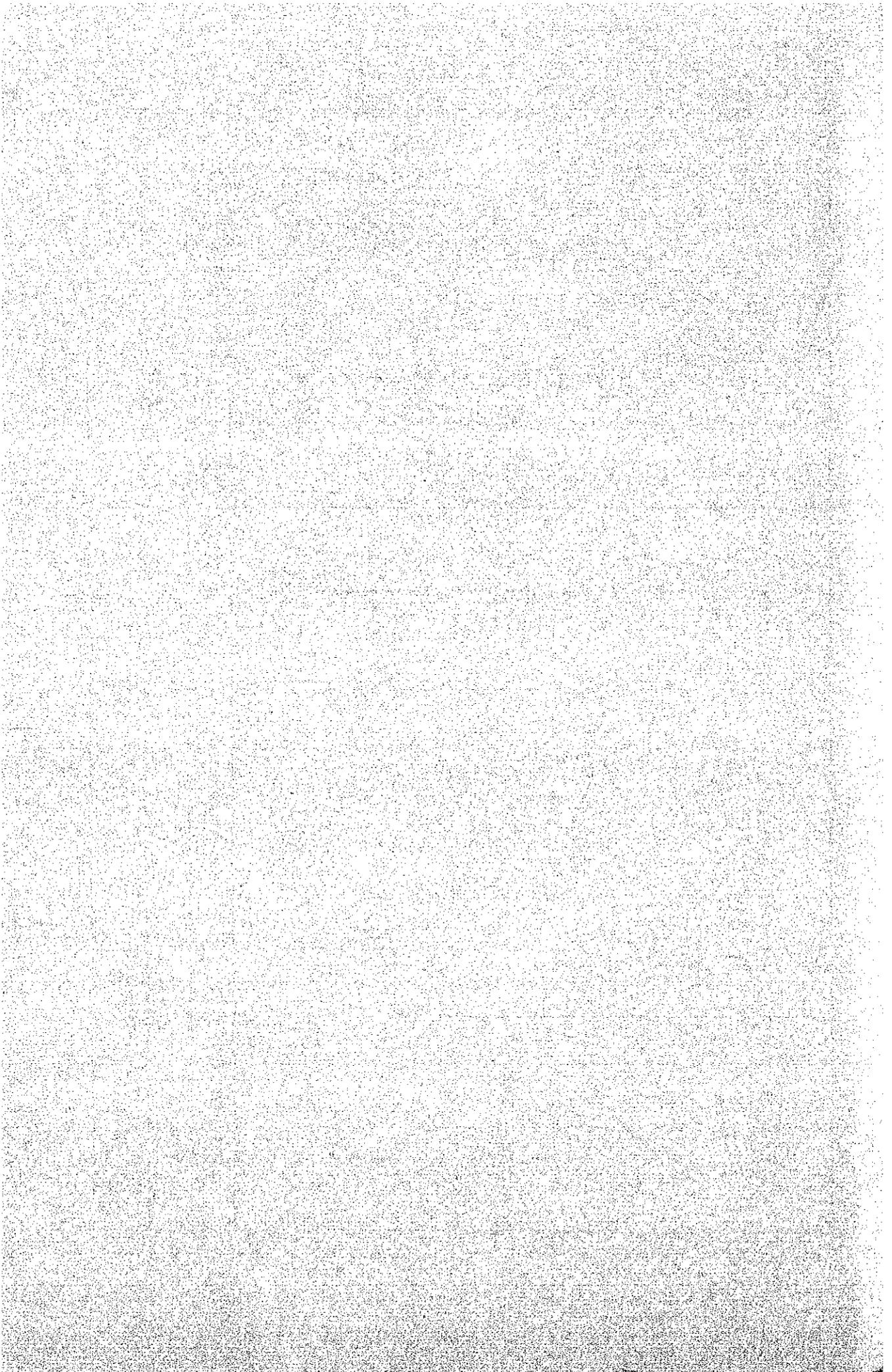
```
              DATA BOOK
             (February 1988)


                                    page

    1. Actual Data File Format        .... 1

    2. Forms Used in the Manual System .... 7
```

Attention

   1. "Actual Data File Format" will be used for loading
      the actual data from the existing file into the RIQS
      Data Base.

   2. "Forms Used in the Manual System" is an actual format
      but the "Subject-Result" in this form is not actual.
      This is only a test data.

1. Actual Data File Format

1) Data Format of STUDENT File

```
File Name    :  ADPROJ.GRP05.STFILE
Record Form  :  Fixed
Record Size  :  50
Block Size   :  50
File Format  :  ACOS4
File Organization : Sequential
```

<< FIELD   INFORMATION >>

NUM	COLNO	COLUMN-NAME	POS	ATTR	LEN
1	1	Course-No/Student-No	0	CHAR	007
2	2	Application-No	7	CHAR	008
3	3	Student-Name	15	CHAR	030
4	4	Student-Status	45	CHAR	001
5	5	Evaluation-Marks	46	NUDEC	004

- 1 -

1st column   50th column

COLNG	1	2	3	4	5
	AP01001	APR2-001	AARON LIM	R	0000
	AP01002	AP82-005	WEE YUE CHEONG	R	0000
	AP01003	AP82-010	CHONG AI LING	R	0000
	AP01004	AP82-012	HENG KIM HO	R	0000
	AP01005	AP82-014	LOW JIN JI	R	0000
	AP01006	AP82-015	LEE BEE LAN	R	0000
	AP01007	AP82-016	WONG KHEN WAN	R	00C0
	AP01008	APR2-018	SOH NAM WHATT	R	0000
	AP01009	AP82-019	POON NAI SHIT	R	0000
	AP01010	AP82-020	NAK CHEK SUN	R	0000
	AP01011	APR2-028	TONY TANIBAJA	F	0000
	AP01012	AP82-043	HO CHEE PENG	F	0000
	AP01013	AP82-046	WONG BENG BENG	R	0000
	AP01014	APR2-054	CHAN WING HENG	R	0000
	AP01015	AP82-013	LOI TECK KAY	R	0000
	AP01016	AP82-057	HEE CHOON HONG	W	0000
	AP01017	AP82-059	HUP SOON TIONG	R	0000
	AP01018	AP82-060	KAM SOU HAN	R	0000
	AP01019	AP82-061	CHOW ENG LIAN	W	0000
	AP01020	APR2-062	CHAN FOOK LFONG	R	0000
	AP01021	APR2-063	KANG YONG HENG	F	0000
	AP01022	AP82-064	XIANG LONG KAM	F	0000
	AP01023	AP82-065	KOH CHOO CHIN	R	0000
	AP01024	APR2-066	LAI YONG KAH	P	0000
	AP01025	AP82-067	LEE KIM HEO	P	0000
	AP02050	AP83-066	SIRAN SINGH	P	0000
	AP02051	AP83-067	SYED ARIS BIN AWANG	F	0000
	AP02052	AP83-068	TAN KEO	P	0000
	AP02053	AP83-069	THANGA RASU	R	0000
	AP02054	AP83-070	SHEIK MATHAR	P	0000

total 109 records

−2−

2) Data Format of COURSE File

File Name : ADPROJ.GRP05.CSFILE
Record Form : Fixed
Record Size : 210
Block Size : 210
File Format : ACOS4
File Organization : Sequential

<< FIELD INFORMATION >>

NUM	COLNO	COLUMN-NAME	POS	ATTR	LEN
1	1	Course-Type/Batch-No	0	CHAR	004
2	2	Course-Name	4	CHAR	040
3	3	Coordination-Name	44	CHAR	030
4	4	Course-start-date	74	NUDEC	006
5	5	Course-end-date	80	NUDEC	006
6	6	Course-description	86	CHAR	060
7	7	Course-prerequisite	146	CHAR	060
8	8	Course-Fee	206	NUDEC	004

-3-

1st column

↓

COLNO   1   2   3   4   5

APO1   ANALYST PROGRAMMER COURSE   SONG NAT NAT   B20224   A40331
APO2   ANALYST PROGRAMMER COURSE   YEE CHAY THONG   A30224   AS0331

           6   7

DIPLOMA IN PROGRAMMING AND SYSTEM ANALYSIS   2 GCE 'A' LEVEL INCLUDING ENGLISH
DIPLOMA IN PROGRAMMING AND SYSTEM ANALYSIS   2 GCE 'A' LEVEL INCLUDING ENGLISH

210 th Column

↓

        8
        2000
        2000

total   2 records

-4-

3) Data Format of SUBJECT File

        File Name   : ADPROJ.GRP05.SBFILE
        Record Form : Fixed
        Record Size : 188
        Block Size   : 188
        File Format : ACOS4
        File Organization : Sequential

<< FIELD   INFORMATION >>

NUM	COLNO	COLUMN-NAME	POS	ATTR	LEN
1	1	Course-No / Subject-Code	0	CHAR	008
2	2	Subject-Name	8	CHAR	040
3	3	Subject-Aim	48	CHAR	060
4	4	Subject-Details	108	CHAR	080

-5-

1st column

↓

AP01APP	APPLICATION PACKAGES	TO LEARN HOW TO USE APPLICATION PACKAGES
AP01OR	OPERATION RESEARCH	TO LEARN WHAT IS OR
AP01SESM	SYSTEM EVALUATION/SYSTEM MAINTENANCE	TO LEARN HOW TO DO SYSTEM EVALUATION/MAINTENANCE
AP01SASD	SYSTEM ANALYSIS/SYSTEM DESIGN	TO LEARN ABOUT THE METHOD OF SA/SD
AP01RTSP	REAL TIME SYSTEM PACKAGE	TO LEARN ABOUT RTP
AP01FSS	FUNDAMENTAL OF SYSTEM SOFTWARE	TO LEARN WHAT IS SYSTEM SOFTWARE
AP01FONS	FUNDAMENTAL OF ON-LINE SYSTEMS	TO LEARN ABOUT CONCEPTS OF ON-LINE SYSTEMS
AP01AS	APPLICATION SYSTEM	TO LEARN WHAT IS APPLICATION SYSTEM
AP01DB3	DATABASE 3	TO LEARN THE MANAGEMENT SYSTEMS OF DB
AP01ASSM	ASSEMBLY LANGUAGE	TO LEARN ASSEMBLY LANGUAGE
AP01OS1	OPERATING SYSTEM 1	TO LEARN ABOUT BASIC CONCEPTS OF OS
AP01OS2	OPERATING SYSTEM 2	TO LEARN ABOUT THE EXTENDED MACHINE SYSTEM
AP01PAS	PASCAL	TO LEARN THE LANGUAGE PASCAL
AP01CDP	INTRODUCTION TO COMPUTER/DATA PROCESSING	TO LEARN GENERAL CONCEPTS OF COMPUTER/DP
AP01HW	INTRODUCTION TO HARDWARE	TO LEARN THE GENERAL CONCEPTS OF COMPUTER HARDWARE
AP01SW	INTRODUCTION TO SOFTWARE	TO LEARN THE GENERAL CONCEPTS OF COMPUTER SOFTWARE
AP01BAS2	BASIC 2	TO LEARN THE HIGHER USAGE OF BASIC LANGUAGE

188th column

↓

CASY,TAKLIB,FACTOR,WHOM,REM	
INTRODUCTION OF OR	
IMPROVEMENT,THE WAY OF SYSTEM	MAINTENANCE
SALD OF NCB,STEPS/C OF NEC	
VIS, CISS	
MESSAGE CONTROL,DATA BASE MANAGEMENT,	DYNAMIC RESOURCE MANAGEMENT
MESSAGE MANGEMENT,COMMUNICATION SYSTEM, RE-ENTRANT PROGRAM	
CONCEPTS OF OPERATION SYSTEM AND APPLICATION SYSTEM,EXAMPLES OF APPLICATION SYS.	
IMS, ADBS,RIQS	
ASSEMBLY LANGUAGE OF 8086	
TASK MANGEMENT, DATA MANGEMENT	
VIRTUAL MEMORY MANAGEMENT, BUFFER	MANGEMENT
ACOS-4 PASCAL	
WHAT IS COMPUTER/DP AND ITS TREND	
THE GENERAL DESCRIPTION OF S450	
THE GENERAL DESCRIPTION OF ACOS-4/MVP	
THE DRAWING OF PICTURES	

total 59 records

-6-

Student Information

1. Student-No	001
2. Application-No	AP82-001
3. Course-No	AP01
4. Student-Name	Aaron Lim
5. Date-Joined	820224
6. Current Status	R

7. Subject-Result	Exam	Pract	Asgnmnt	Test1	Test2	Test3
APP	22	68	62	80	77	
OR	53	61	83	85	69	80
SESM	69	67	71	72	83	63
SASD	71	80	58	76	75	60
RTSP	68	71	60	70	69	75
FSS	65	65	77	73	74	70
FONS	75	70	79	63	81	79
AS	81	72	63	68	75	
DB3	69	73	69	71	81	65
ASSM	72	62	75	65	78	83
OS1	62	68	80	82	75	88
OS2	80	73	65	75	69	75
PAS	82	79	65	78	81	91
ICDP	79	85	73	83		
IHW	65	71	62	80	73	67
ISW	59	70	71	71	66	72
BAS2	68	72	77	75	80	76
MGAC	81	85	75	70	75	69
DB1	72	80	81	72	69	83
DB2	77	75	69	61	87	85
BUSO	63	81	65	63	63	71
DCOM	70	65	78	68	70	78
PL1	65	77	77	70	80	63
MAT2	71	75	60	62	75	60
COB1	78	80	67	81	73	83
MAT1	67	75	59	79	85	85
FORT	65	73	77	73	73	72
COMS	72	75	70	64		
BAS1	29	70	62	59		70

-7-

1. Student-No	002					
2. Application-No	AP82-005					
3. Course-No	APO1					
4. Student-Name	Wee Yue Cheong					
5. Date-Joined	820224					
6. Current Status	R					
7. Subject-Result	Exam	Pract	Asgnmnt	Test1	Test2	Test3
APP	64	60	75	82	67	
OR	89	62	60	63	80	63
SESM	67	65	65	61	82	69
SASD	60	83	83	90	55	61
RTSP	72	80	91	97	70	73
FSS	82	77	28	63	73	64
FONS	76	75	73	67	63	58
AS	77	65	70	58	82	
DB3	83	89	69	77	80	65
ASSM	60	73	67	60	85	77
OS1	76	69	65	56	90	70
OS2	68	72	65	70	75	82
PAS	77	70	70	72	77	85
ICDP	78	63	75	68		
IHW	91	69	81	80	82	82
ISW	93	82	62	75	85	66
BAS2	61	81	80	85	76	67
MGAC	67	73	58	77	72	84
DB1	68	62	70	72	82	82
DB2	82	55	64	60	72	63
BUSO	82	56	58	63	66	66
DCOM	95	80	75	82	67	83
PL1	83	70	70	80	68	80
MAT2	60	66	75	85	80	90
COB1	73	72	89	66	70	91
MAT1	81	75	69	70	77	82
FORT	76	82	72	85	78	58
COMS	80	80	57	80		
BAS1	90	73	83	73	70	73

-8-

1. Student-No	603
2. Application-No	AP82-010
3. Course-No	AP01
4. Student-Name	Chong Ai Ling
5. Date-Joined	820224
6. Current Status	R

7. Subject-Result	Exam	Pract	Asgnmnt	Test1	Test2	Test3
APP	55	70	83	79	70	
OR	72	77	84	59	73	83
SESM	80	73	59	65	83	63
SASD	81	69	58	60	82	84
RTSP	73	65	80	82	63	80
FSS	58	72	75	72	73	70
FONS	66	91	76	91	82	68
AS	69	63	68	83	80	
DB3	81	68	80	95	73	83
ASSM	68	82	82	63	83	65
OS1	90	83	73	82	80	68
OS2	20	82	68	80	63	73
PAS	77	63	81	63	63	70
ICDP	78	81	83	60		
IHW	63	83	80	72	85	69
ISW	71	28	61	70	73	82
BAS2	80	69	90	73	75	83
MGAC	85	81	93	82	71	68
DB1	67	72	60	65	83	58
DB2	72	78	83	81	90	70
BUSO	68	68	76	85	83	72
DCOM	58	88	83	70	68	82
PL1	81	58	91	72	67	80
MAT2	77	80	67	79	73	68
COB1	82	82	68	63	72	73
MAT1	71	57	84	68	83	70
FORT	68	70	80	72	76	82
COMS	79	91	82	82		
BAS1	68	71	70	83	81	72

-9-

Student Information

1. Student-No	004
2. Application-No	AP82-812
3. Course-No	AP81
4. Student-Name	Heng Kim Ho
5. Date-Joined	820224
6. Current Status	R

7. Subject-Result	Exam	Pract	Asgnmnt	Test1	Test2	Test3
APP	63	72	70	67	73	
OR	82	69	82	73	83	80
SESM	80	83	65	70	71	83
SASD	65	71	65	65	65	69
RTSP	82	22	82	82	69	60
FSS	100	65	85	71	77	83
FONS	81	70	69	67	82	80
AS	62	82	67	69	88	
DB3	59	80	57	81	55	63
ASSM	80	72	80	83	91	67
OS1	73	71	72	71	23	73
OS2	62	63	77	62	80	78
PAS	79	62	80	65	73	80
ICDP	75	56	83	80		
IHW	62	86	69	73	70	73
ISW	71	80	75	71	85	90
BAS2	81	73	75	0	82	73
MGAC	80	70	87	87	63	68
DB1	77	72	85	69	66	80
DB2	82	62	62	70	80	77
BUSO	80	83	70	83	68	59
DCOM	85	61	83	83	88	81
PL1	73	83	82	73	85	80
MAT2	63	73	71	77	80	79
COB1	66	74	73	63	73	83
MAT1	80	62	74	64	71	0
FORT	73	74	75	81	68	86
COMS	82	63	65	75		
BAS1	80	70	80	60	70	81

-10-

Student Information

1. Student-No	005					
2. Application-No	AP82-014					
3. Course-No	AP01					
4. Student-Name	Low Jin Ji					
5. Date-Joined	820214					
6. Current Status	R					
7. Subject-Result		Exam	Pract	Asgnmnt	Test1	Test2	Test3
	APP	90	80	84	58	65	
	OR	81	82	32	83	63	100
	SESM	80	80	60	0	73	66
	SASD	77	84	77	80	80	73
	RTSP	63	53	80	68	91	64
	FSS	80	81	73	82	84	83
	FONS	85	63	63	43	73	80
	AS	68	72	64	82	90	
	DB3	0	70	63	73	63	48
	ASSM	80	75	34	80	83	80
	OS1	91	63	23	77	88	87
	OS2	80	75	69	75	70	73
	PAS	73	79	70	69	83	90
	ICDP	83	63	75	80		
	IHW	84	85	80	57	80	63
	ISW	63	69	81	83	73	58
	BAS2	50	100	69	80	88	70
	MGAC	83	72	66	78	71	83
	DB1	83	93	80	70	63	45
	DB2	70	84	73	73	82	83
	BUSO	77	55	83	75	71	30
	DCOM	75	57	59	60	64	83
	PL1	72	20	73	66	70	41
	MAT2	80	83	80	81	70	63
	COB1	73	62	100	65	61	83
	MAT1	85	63	57	63	63	81
	FORT	75	60	66	82	83	80
	COMS	80	83	78	80		
	BAS1	83	70	80	83	80	74

Student Information

1. Student-No	606
2. Application-No	AP82- 015
3. Course-No	AP01
4. Student-Name	Lee Bee Lan
5. Date-Joined	820224
6. Current Status	R

7. Subject-Result	Exam	Pract	Asgnmnt	Test1	Test2	Test3
APP	66	74	66	88	70	
OR	73	82	68	70	71	70
SESM	70	80	80	80	73	70
SASD	82	81	75	81	38	72
RTSP	88	90	75	63	60	52
FSS	68	61	68	30	60	83
FONS	80	68	80	70	73	80
AS	77	82	73	71	74	
DB3	70	68	65	63	58	77
ASSM	83	66	32	69	36	63
OS1	64	67	80	82	88	60
OS2	63	82	63	61	95	58
PAS	58	80	40	63	70	74
ICDP	66	81	81	83		
IHW	60	82	80	61	81	80
ISW	72	66	73	58	63	75
BAS2	71	68	63	57	70	73
MGAC	82	82	84	67	68	82
DB1	64	80	70	80	95	56
DB2	58	81	73	73	83	83
BUSO	60	70	62	78	35	80
DCOM	71	73	51	89	100	73
PL1	84	68	80	69	73	70
MAT2	70	53	83	48	64	77
COB1	64	70	74	36	68	63
MAT1	81	66	80	70	32	83
FORT	89	70	71	85	63	22
COMS	90	70	83	57		
BAS1	81	81	60	88	73	15

-12-

1. Student-No	007					
2. Application-No	AP82-016					
3. Course-No	AP01					
4. Student-Name	Wong Khen Wah					
5. Date-Joined	820224					
6. Current Status	R					
7. Subject-Result	Exam	Pract	Asgnmnt	Test1	Test2	Test3
APP	100	64	80	80	20	
OR	73	70	70	81	81	77
SESM	70	62	71	41	87	68
SASD	83	85	48	80	77	60
RTSP	38	53	29	73	60	51
FSS	68	72	53	72	68	61
FONS	84	65	20	50	54	84
AS	48	62	48	74	32	
DB3	80	73	67	80	100	41
ASSM	95	70	77	74	81	57
OS1	60	68	84	56	85	70
OS2	88	77	20	81	83	80
PAS	100	65	83	88	71	78
ICDP	95	90	71	49		
IHW	63	93	80	70	83	78
ISW	73	74	84	74	80	90
BAS2	54	49	68	68	70	73
MGAC	75	53	80	59	48	78
DB1	70	68	79	66	70	80
DB2	83	72	100	73	74	88
BUSO	80	69	75	78	73	87
DCOM	70	77	48	65	69	66
PL1	75	81	70	60	83	69
MAT2	74	85	65	67	91	83
COB1	83	77	63	54	87	58
MAT1	80	91	81	85	80	80
FORT	83	80	73	75	74	74
COMS	72	71	55	70		
BAS1	75	80	70	23	56	69

-13-

1. Student-No	008					
2. Application-No	AP82-018					
3. Course-No	AP01					
4. Student-Name	Soh Nam Whatt					
5. Date-Joined	820224					
6. Current Status	R					
7. Subject-Result	Exam	Pract	Asgnmnt	Test1	Test2	Test3
APP	83	65	73	70	62	
OR	100	58	63	70	83	67
SESM	84	66	70	0	59	82
SASD	70	67	85	81	63	100
RTSP	65	70	81	23	74	51
FSS	68	0	80	82	23	54
FONS	74	71	85	65	70	72
AS	80	74	71	83	0	
DB3	43	80	100	72	81	61
ASSM	54	88	68	100	95	50
OS1	81	72	77	75	63	84
OS2	85	68	69	81	73	49
PAS	80	65	48	83	65	77
ICDP	74	61	35	75		
IHW	77	70	69	71	86	80
ISW	0	53	73	64	63	74
BAS2	80	47	70	73	80	58
MGAC	89	80	60	84	73	80
DB1	80	73	63	53	85	0
DB2	94	83	75	72	63	73
BUSO	63	80	82	70	100	70
DCOM	80	77	62	83	74	64
PL1	88	75	80	75	63	83
MAT2	84	81	93	68	82	66
COB1	70	90	0	71	32	73
MAT1	73	100	60	83	70	74
FORT	74	88	63	44	64	58
COMS	77	87	80	63		
BAS1	80	63	77	68	71	63

-14-

1. Student-No	Q19
2. Application-No	AP83-005
3. Course-No	AP02
4. Student-Name	Neo Ai Chin
5. Date-Joined	830224
6. Current Status	R

7. Subject-Result		Exam	Pract	Asgnmnt	Test1	Test2	Test3
	APP	65	60	0	95	85	72
	OR	72	73	64	88	70	0
	SESM	35	78	60	63	68	55
	SASD	23	68	84	72	72	
	RTSP	70	77	57	84	70	30
	FSS	77	70	70	52	83	
	FONS	75	75	68	64	55	
	AS	45	100	80	83		
	DB3	68	59	88	25	68	25
	ASSM	72	63	74	50	73	
	OS1	59	73	65	64	82	
	OS2	95	62	70	53	68	62
	PAS	68	52	84	45	32	
	ICDP	70	60	60	83	65	54
	IHW	66	68	54	68	43	100
	ISW	0	73	100	74	60	
	BAS2	80	64	75	73	73	45
	MGAC	57	54	83	40	94	80
	DB1	66	80	57	58	62	
	DB2	75	77	64	83		
	BUSO	77	64	77	85	36	48
	DCOM	69	65	68	63	77	
	PL1	84	83	35	74	70	
	MAT2	77	74	52	73	14	80
	SP	98	64	21	83		
	MAT1	66	57	60	80	68	
	FORT	75	67	30	73	50	
	COMS	65	77	68	80	70	77
	BAS1	65	68	52	58	69	
	COB1	70	75	63	24		

-15-

1. Student-No	Q28					
2. Application-No	AP83-022					
3. Course-No	AP02					
4. Student-Name	Seow Chai Seng					
5. Date-Joined	830224					
6. Current Status	R					

7. Subject-Result		Exam	Pract	Asgnmnt	Test1	Test2	Test3
	APP	100	88	75	80	66	72
	OR	68	95	82	100	84	53
	SESM	72	90	58	84	80	82
	SASD	54	84	83	57	64	
	RTSP	84	70	62	63	54	60
	FSS	76	52	59	84	70	
	FONS	52	83	80	73	68	
	AS	35	60	77	63		
	DB3	73	32	65	62	72	83
	ASSM	71	65	81	70	100	
	OS1	88	80	83	84	58	
	OS2	77	30	56	25	74	57
	PAS	67	25	73	95	83	
	ICDP	65	77	63	63	56	27
	IHW	80	63	67	42	48	60
	ISW	70	75	82	12	56	
	BAS2	77	85	65	54	83	74
	MGAC	76	63	48	83	82	60
	DB1	82	25	57	72	74	
	DB2	57	70	68	0		
	BUSO	83	13	30	15	70	25
	DCOM	45	62	75	70	60	
	PL1	63	73	62	84	84	
	MAT2	71	68	70	63	50	74
	SP	80	54	73	0		
	MAT1	73	83	73	75	74	
	FORT	100	70	62	68	84	
	COMS	35	54	79	25	55	53
	BAS1	64	74	81	80	80	
	COB1	60	53	100	68		

-16-

Student Information

1. Student-No	053
2. Application-No	AP83-069
3. Course-No	APQ2
4. Student-Name	Thanga Rasu
5. Date-Joined	830224
6. Current Status	R

7. Subject-Result		Exam	Pract	Asgnmnt	Test1	Test2	Test3
	APP	82	66	75	85	70	54
	OR	100	70	80	64	82	80
	SESM	73	84	83	73	64	75
	SASD	65	70	64	100	53	
	RTSP	63	76	60	64	70	0
	FSS	88	73	74	70	74	
	FONS	70	84	73	73	52	
	AS	65	80	84	54		
	DB3	0	73	70	84	72	83
	ASSM	83	71	68	80	65	
	OS1	75	58	0	70	74	
	OS2	70	45	65	77	58	73
	PAS	74	30	81	63	28	
	ICDP	80	100	73	64	30	84
	IHW	68	73	84	54	88	50
	ISW	77	60	80	0	54	
	BAS2	65	70	63	73	83	84
	MGAC	60	35	70	81	72	72
	DB1	83	0	73	84	100	
	DB2	80	83	82	62		
	BUSO	77	69	58	93	52	73
	DCOM	65	70	64	54	88	
	PL1	83	77	71	27	64	
	MAT2	89	83	68	38	53	58
	SP	60	48	70	63		
	MAT1	93	51	100	83	72	
	PORT	62	63	88	70	64	
	COMS	70	70	69	85	77	69
	BAS1	84	65	73	28	84	
	COB1	80	70	62	58		

1. Course-No	AP&1
2. Subject-Code	RONS
3. Subject-Name	Fundamental of On-line Systems
4. Subject-Aim	To learn about Concepts of On-line Systems
5. Subject-Details	Message Management Communication System
6. Exam-Date	840208
7. Exam-Day	SAT
8. Exam-Place	Library
9. Time-From/To	0900-1200
10. Examiner-Name	TIMOTHY CHAN
11. IEB-SEC-SUB-Date	840301
12. Mod-Date	840110
13. Invigilator1-Name	DANIEL TAN
14. Invigilator2-Name	QUEK NGUAN TUAN
15. Invigilator3-Name	HO KIM TOK
16. Invigilator4-Name	LIM KIN CHEW
17. Printed-Sub-Date	840115

18. Assess

Code	Assess Name	Assess Weightage (%)
Exam-Marks	Exam	60
Ass-Marks-1	Practical	10
Ass-Marks-2	Assignment	10
Ass-Marks-3	Test 1	6.7
Ass-Marks-4	Test 2	6.7
Ass-Marks-5	Test 3	6.6

-18-

Subject Information

```
+-----------------------+---------------------------------------------------------+
| 1. Course-No          |  AP01                                                   |
|-----------------------|---------------------------------------------------------|
| 2. Subject-Code       |  IHW                                                    |
|-----------------------|---------------------------------------------------------|
| 3. Subject-Name       |  Introduction to Hardware                               |
|-----------------------|---------------------------------------------------------|
| 4. Subject-Aim        |  To learn the general concepts of Computer Hardware     |
|-----------------------|---------------------------------------------------------|
| 5. Subject-Details    |  The general description of S450                        |
|-----------------------|---------------------------------------------------------|
| 6. Exam-Date          |  820816                                                 |
|-----------------------|---------------------------------------------------------|
| 7. Exam-Day           |  SAT                                                    |
|-----------------------|---------------------------------------------------------|
| 8. Exam-Place         |  Library                                                |
|-----------------------|---------------------------------------------------------|
| 9. Time-From/To       |  0900 - 1200                                           |
|-----------------------|---------------------------------------------------------|
| 10.Examiner-Name      |  HO KIM FOK                                            |
|-----------------------|---------------------------------------------------------|
| 11.IEB-SEC-SUB-Date   |  820905                                                 |
|-----------------------|---------------------------------------------------------|
| 12.Mod-Date           |  820725                                                 |
|-----------------------|---------------------------------------------------------|
| 13.Invigilator1-Name  |  HO KIM FOK                                            |
|-----------------------|---------------------------------------------------------|
| 14.Invigilator2-Name  |  LO YIN NAN                                            |
|-----------------------|---------------------------------------------------------|
| 15.Invigilator3-Name  |  LIM KIN CHEW                                          |
|-----------------------|---------------------------------------------------------|
| 16.Invigilator4-Name  |  SOH SIEW LAY                                          |
|-----------------------|---------------------------------------------------------|
| 17.Printed-Sub-Date   |  820801                                                 |
|-----------------------|---------------------------------------------------------|
| 18.Assess             |                                                         |
```

Code	Assess Name	Assess Weightage (%)
Exam-Marks	Exam	60
Ass-Marks-1	Practical	20
Ass-Marks-2	Assignment	15
Ass-Marks-3	Test 1	5
Ass-Marks-4	Test 2	0
Ass-Marks-5	Test 3	0

-19-

1. Course-No	AP01
2. Subject-Code	MAT1
3. Subject-Name	Mathematics 1
4. Subject-Aim	To learn the basic mathematics for OR
5. Subject-Details	Basic mathematics for OR
6. Exam-Date	830210
7. Exam-Day	WED
8. Exam-Place	Library
9. Time-From/To	0900 - 1200
10.Examiner-Name	ESTHER LIEW
11.IEB-SEC-SUB-Date	830301
12.Mod-Date	830129
13.Invigilator1-Name	ESTHER LIEW
14.Invigilator2-Name	SOH SIEW LAY
15.Invigilator3-Name	SALLY YONG
16.Invigilator4-Name	PATRICIA CHIA
17.Printed-Sub-Date	830125

18.Assess

Code	Assess Name	Assess Weightage (%)
Exam-Marks	Exam	70
Ass-Marks-1	Practical	0
Ass-Marks-2	Assignment	0
Ass-Marks-3	Test 1	30
Ass-Marks-4	Test 2	0
Ass-Marks-5	Test 3	0

-20-

1. Course-No	APØ1
2. Subject-Code	OR
3. Subject-Name	Operations Research
4. Subject-Aim	To learn what is OR
5. Subject-Details	Introduction of OR
6. Exam-Date	840204
7. Exam-Day	TUE
8. Exam-Place	Library
9. Time-From/To	0900 - 1200
10. Examiner-Name	SOH SIEW LAY
11. IEB-SEC-SUB-Date	840301
12. Mod-Date	?-0110
13. Invigilator1-Name	SOH SIEW LAY
14. Invigilator2-Name	LEOW YEE SIONG
15. Invigilator3-Name	YEE CHAK THONG
16. Invigilator4-Name	
17. Printed-Sub-Date	850115
18. Assess	

Code	Assess Name	Assess Weightage (%)
Exam-Marks	Exam	60
Ass-Marks-1	Practical	12.5
Ass-Marks-2	Assignment	12.5
Ass-Marks-3	Test 1	5
Ass-Marks-4	Test 2	5
Ass-Marks-5	Test 3	5

-21-

Subject Information

1. Course-No	AP01
2. Subject-Code	SESM
3. Subject-Name	System Evaluation / System Maintenance
4. Subject-Aim	To learn how to do about System evaluation / mainte nance
5. Subject-Details	Tools of System Evaluation , The way of system maintenance
6. Exam-Date	840204
7. Exam-Day	TUE
8. Exam-Place	Lecture Room 1
9. Time-From/To	1400 - 1700
10. Examiner-Name	Soo PUI WAH
11. IEB-SEC-SUB-Date	840301
12. Mod-Date	840110
13. Invigilator1-Name	Soo PUI WAH
14. Invigilator2-Name	Ho CHEE MENG
15. Invigilator3-Name	LIM KIN CHEW
16. Invigilator4-Name	SALLY YONG
17. Printed-Sub-Date	840115
18. Assess	

	Code	Assess Name	Assess Weightage (%)
	Exam-Marks	Exam	60
	Ass-Marks-1	Practical	25
	Ass-Marks-2	Assignment	0
	Ass-Marks-3	Test 1	15
	Ass-Marks-4	Test 2	0
	Ass-Marks-5	Test 3	0

-22-

1. Course-No	AP82	
2. Subject-Code	APP	
3. Subject-Name	Application Package	
4. Subject-Aim	To learn how to use Application Package	
5. Subject-Details	CAST , TAXLIB, FACTOR , WHOM, REM	
6. Exam-Date	850203	
7. Exam-Day	Mon	
8. Exam-Place	Library	
9. Time-From/To	0900 - 1200	
10. Examiner-Name	DANIEL TAN	
11. IEB-SEC-SUB-Date	850301	
12. Mod-Date	850110	
13. Invigilator1-Name	DANIEL TAN	
14. Invigilator2-Name	TIMOTHY CHAN	
15. Invigilator3-Name	TNG LAY HUA	
16. Invigilator4-Name	SALLY YONG	
17. Printed-Sub-Date	850115	
18. Assess		

Code	Assess Name	Assess Weightage (%)
Exam-Marks	Exam	60
Ass-Marks-1	Practical	25
Ass-Marks-2	Assignment	10
Ass-Marks-3	Test 1	5
Ass-Marks-4	Test 2	0
Ass-Marks-5	Test 3	0

-23-

Subject Information

1. Course-No	AP92
2. Subject-Code	AS
3. Subject-Name	Application System
4. Subject-Aim	To learn what is Application System
5. Subject-Details	Concept of OS and Application System
6. Exam-Date	850211
7. Exam-Day	TUE
8. Exam-Place	Library
9. Time-From/To	0900 - 1200
10. Examiner-Name	SALLY YONG
11. IEB-SEC-SUB-Date	850301
12. Mod-Date	850110
13. Invigilator1-Name	SALLY YONG
14. Invigilator2-Name	LIM KIN CHEW
15. Invigilator3-Name	SONG WAY HAY
16. Invigilator4-Name	NG KOK THIAM
17. Printed-Sub-Date	850115
18. Assess	

Code	Assess Name	Assess Weightage (%)
Exam-Marks	Exam	60
Ass-Marks-1	Practical	10
Ass-Marks-2	Assignment	10
Ass-Marks-3	Test 1	10
Ass-Marks-4	Test 2	10
Ass-Marks-5	Test 3	0

-24-

Subject Information

1. Course-No	APO2
2. Subject-Code	ASSM
3. Subject-Name	Assembly Language
4. Subject-Aim	To learn Assembly Language
5. Subject-Details	Assembly Language of Intel 8086
6. Exam-Date	830812
7. Exam-Day	TUE
8. Exam-Place	Library
9. Time-From/To	0900-1200
10. Examiner-Name	LO YIN NAN
11. IEB-SEC-SUB-Date	830905
12. Mod-Date	830725
13. Invigilator1-Name	LO YIN NAN
14. Invigilator2-Name	GERALDIN TYE
15. Invigilator3-Name	DANIEL TAN
16. Invigilator4-Name	TAN SOCK YAN
17. Printed-Sub-Date	830801
18. Assess	

	Code	Assess Name	Assess Weightage (%)
	Exam-Marks	Exam	40
	Ass-Marks-1	Practical	0
	Ass-Marks-2	Assignment	0
	Ass-Marks-3	Test 1	30
	Ass-Marks-4	Test 2	30
	Ass-Marks-5	Test 3	0

-25-

Subject Information

1. Course-No	AP92
2. Subject-Code	BAS1
3. Subject-Name	BASIC 1
4. Subject-Aim	To learn fundamental BASIC language
5. Subject-Details	Fundamental BASIC
6. Exam-Date	840211
7. Exam-Day	THU
8. Exam-Place	Library
9. Time-From/To	0900 - 1200
10. Examiner-Name	PAULINE CHAN
11. IEB-SEC-SUB-Date	840301
12. Mod-Date	840120
13. Invigilator1-Name	PAULINE CHAN
14. Invigilator2-Name	LEOW YEE SIONG
15. Invigilator3-Name	TIMOTHY CHAN
16. Invigilator4-Name	VIRGINIA CHAN
17. Printed-Sub-Date	840125
18. Assess	

Code	Assess Name	Assess Weightage (%)
Exam-Marks	Exam	40
Ass-Marks-1	Practical	0
Ass-Marks-2	Assignment	20
Ass-Marks-3	Test 1	20
Ass-Marks-4	Test 2	20
Ass-Marks-5	Test 3	0

-26-

Subject Information

1. Course-No	AF82
2. Subject-Code	BUSO
3. Subject-Name	Business Organisation
4. Subject-Aim	To learn business Organisation
5. Subject-Details	The general explanation of business organisation
6. Exam-Date	840811
7. Exam-Day	TUE
8. Exam-Place	Library
9. Time-From/To	1400-1700
10. Examiner-Name	SONG NAY HAY
11. IEB-SEC-SUB-Date	840901
12. Mod-Date	840720
13. Invigilator1-Name	SONG NAY HAY
14. Invigilator2-Name	WINNIE HO
15. Invigilator3-Name	LO TING CHUNG
16. Invigilator4-Name	TAN SOCK YAN
17. Printed-Sub-Date	84 0725
18. Assess	

Code	Assess Name	Assess Weightage (%)
Exam-Marks	Exam	60
Ass-Marks-1	Practical	15
Ass-Marks-2	Assignment	10
Ass-Marks-3	Test 1	5
Ass-Marks-4	Test 2	5
Ass-Marks-5	Test 3	5

-27-

Subject Information

1. Course-No	AP82
2. Subject-Code	COB1
3. Subject-Name	COBOL 1
4. Subject-Aim	To learn how to write COBOL on DB/DC system
5. Subject-Details	The COBOL Language on DB/DC
6. Exam-Date	840289
7. Exam-Day	TUE
8. Exam-Place	Library
9. Time-From/To	1400 - 1700
10. Examiner-Name	HO CHEE MENG
11. IEB-SEC-SUB-Date	840301
12. Mod-Date	840120
13. Invigilator1-Name	HO CHEE MENG
14. Invigilator2-Name	NG PIK HWA
15. Invigilator3-Name	HO KIM HOK
16. Invigilator4-Name	SONG NAY HAY
17. Printed-Sub-Date	840125
18. Assess	

Code	Assess Name	Assess Weightage (%)
Exam-Marks	Exam	40
Ass-Marks-1	Practical	10
Ass-Marks-2	Assignment	10
Ass-Marks-3	Test 1	20
Ass-Marks-4	Test 2	20
Ass-Marks-5	Test 3	0

-28-

Subject Information

1. Course-No	AP92
2. Subject-Code	DB2
3. Subject-Name	Database 2
4. Subject-Aim	To learn the trend of database
5. Subject-Details	The trend of database
6. Exam-Date	840813
7. Exam-Day	THU
8. Exam-Place	Library
9. Time-From/To	0900-1200
10. Examiner-Name	LI CHI KEUNG
11. IEB-SEC-SUB-Date	840901
12. Mod-Date	740720
13. Invigilator1-Name	LI CHI KEUNG
14. Invigilator2-Name	CHANG MAY SEE
15. Invigilator3-Name	ESTHER LIEW
16. Invigilator4-Name	PATRICIA CHIA
17. Printed-Sub-Date	740715
18. Assess	

Code	Assess Name	Assess Weightage (%)
Exam-Marks	Exam	40
Ass-Marks-1	Practical	0
Ass-Marks-2	Assignment	30
Ass-Marks-3	Test 1	15
Ass-Marks-4	Test 2	15
Ass-Marks-5	Test 3	0

-29-