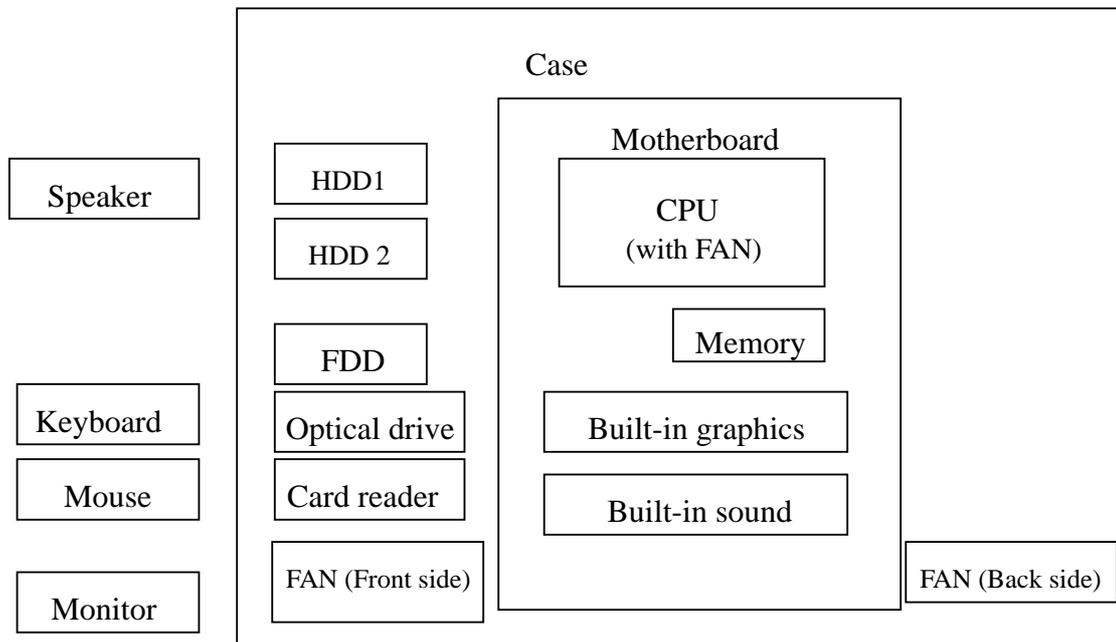


### V21. PC Assembly

#### 1. Task

Assemble a personal computer with reference to the following block diagram, and configure the BIOS setting and install the OS, thereby completing the personal computer meeting the specifications stipulated in Section 4 below (Specifications A to C).



#### 2. Allocated time

4 hours

#### 3. Instructions

- Request for replacement due to a defective product or missing part will be accepted prior to the contest, but once the contest has started, a claim for a missing part or any other discrepancy will not be accepted.
- Contestants who have damaged any part or made any part unusable shall notify the organizer. Such part will be replaced with one that is prepared by the organizer so that the relevant contestant may continue the work. However, the replacement shall be subject to deduction of marks.
- Contestants are not allowed to lend or borrow tools during the contest.
- Contestants shall notify the judge when they finish the task.

## 4. Specifications

### A. Task assigned for assembly (internal and external)

1) Use 2 HDD units (SATA) to compose RAID 1 making two partitions. The following shall be assigned:

- C Drive: OS shall be assigned. The capacity shall be 10GB.
- D Drive: Area for storing data and files
- E Drive: CD-ROM (Optical drive)

<Note>

When the HDD is mounted to the case, heat radiation in the relevant location must be taken into consideration.

2) The card reader with FDD shall be mounted to the case, while the position may be chosen discretionarily.

3) Fans (2 units) shall be mounted in the case taking the air flow direction into consideration.

<Note>

The fan for back side shall be temporarily removed when the mother board (hereinafter, M/D) is installed, and then replaced when M/B installation is completed.

4) Cables in the case shall be neatly bundled using bundling bands so that they will not impede air flow. At this time, take the bending angle of the SATA cable into consideration.

5) A contestant who finds trouble with a piece of hardware shall notify the judge.

6) 1CH of the upper USB terminal shall be connected to the card reader, and 2CH shall be connected to the front side of the case.

7) The operation manuals of both the M/B and the card reader shall be referred to when installing the card reader wiring.

8) It is not necessary to mount the sound terminal for front side output.

### B. Setting of BIOS

1) After loading the default setting, set the date.

2) The serial port shall be disabled.

3) Change the booting order as specified below before installing the OS.

(1) CD - ROM (Optical drive)

(2) Hard disk

(3) Floppy drive

After installation, the order shall be returned to the original one.

4) Set ACPI at S3.

5) Set RAID 1.

### C. Installation of Windows

1) Set to RAID 1 on the BIOS screen and install the OS.

During the installation, the RAID driver ( FD ) will be required, so follow the instructions to load the driver and continue with the OS installation.

<Note>

The organizer will provide the RAID driver (supplied on the FD).

2) When installing, the user name, company name, and PC name as specified below shall be input:

- (1) User name: Each contestant's name in alphabetic characters.
- (2) Company name: Each contestant's country/region
- (3) PC name: Contestant number

3 ) Install the drivers required for the M/B, etc.

4 ) The graphics (VGA) resolution shall be set to full-color graphics enabled.

(The M/B driver provided on the CD-ROM must be installed.)

5 ) The sound shall be set to enabled.

(The M/B driver provided on the CD-ROM must be installed).

6 ) The monitor shall be adjusted by making the aspect ratio appropriate roughly with visual inspection.

7 ) A FD written with files will be distributed, so load this and attach it to the desk top.

The optical drive shall be able to install the included player software and debugging software and to play the DVD software for checking.

### 5. Materials to be provided on site

1	CPU	14	LAN
2	CPU fan	15	FDD cable
3	Mother board	16	Card reader with FDD
4	Memory	17	Keyboard
5	HDD1	18	Mouse
6	HDD2	19	Case
7	FDD	20	Fan for case
8	Optical drive	21	RIN for case
9	Graphics card	22	Monitor
10	Sound Card	23	OS ( Windows )
11	Speaker	24	DVD software
12	SATA cable	25	Cable bundling bands (A set of 10), vinyl bands
13	IDE cable		

<Note>

The part configuration given above shows the part specifications as of December 2006, and it may be changed within a scope that does not affect the task contents.

## 6. Equipment to be prepared in site

- Worktable
- Chair
- Stand

## 7. Items to be brought by each contestant

Combination cutting pliers	Tweezers
Pliers	Socket wrench No.5
Screwdrivers (Phillips head, flat head)	

<Note 1>

Contestants who wish to bring their own tools/equipment are requested to prepare a list of such tools and present it to the organizer for approval in advance. The organizer reserves the right not to allow the use of any tools that are considered to give the contestant an unfair advantage.

<Note 2>

Tools/equipment that have been modified for a contestant's exclusive use shall not be brought, but this shall not apply to specific tools/equipment modified to accommodate the contestant's disabilities.

## 8. Evaluation criteria

	Items to be evaluated	Contents	Maximum marks allotted
1	Hardware	Appearance of case	10
		Back side of case	5
		Inside the case	20
		Operation	20
2	Software	BIOS (Setting, etc.)	20
		Windows XP (Setting, etc.)	20
3	Neat arrangement	Keeping worktable, etc., neat and tidy	5
Total			100