Name of Subject with Code :

Data Structure Lab Examination (UCS03B08)

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Semester : III rd Semester

Section : A

Q.1

Write a C program to create a structure for a company who manufactures laptops. Create a repository which consists of the following data: sys_name, sys_id, sys_price, sys_screensize, sys_color. Now, accept data for five different laptops using Dynamic Memory Allocation and display them in a well formatted manner.

```c
# include <stdio.h>
# include <stdlib.h>

struct laptop {
    char* sysname;
    int sys_id;
    float sys_price;
    int sys_screensize;
    char* sys_color;
};

typedef struct laptop laptop;
```

Chinadeep Banik.

```c
void main(){
    laptop *arr_lap = (laptop *) malloc((5 * sizeof(laptop)));
    for (int i=0; i<5; i++){

        laptop *temp_lap = (laptop* malloc (sizeof(laptop)]);
        printf("Enter the sys_name:");
        scanf("%s", temp_lap->sys_name);
        printf("Enter the sys-id:");
        scanf("%d", &temp_lap->sys_id);
        printf("Enter the sys_price:");
        scanf("%d", &temp_lap->sys_price);
        printf("Enter the sys_screensize:");
        scanf("%d", &temp_lap->sys_screensize);
        printf("Enter the sys_color:");
        scanf("%s", temp_lap->sys_color);

        arr_lap[i] = temp_lap;
        free(temp_lap);

    }
```
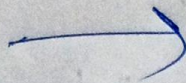
→

```
for (int j=0 ; j<5 ; j++){
    printf ("sys_name : %.sh, arr_lap[j]->sys_name);
    printf ("sys_id : %d \n"; arr_lap[j]-> sys_id);
    printf ("sys_price : %f \n", arr_lap[j]-> sys_price);
    printf ("sys_screensize : %d \n", arr_lap[j] ->sys_screensize);
    printf ("sys_color : %s \n"; arr_lap[j]-> sys_color);
    printf ("\n");
}
}
```

Output

→ Enter the sys_name : lap1

→ Enter the sys_id : 1

→ Enter the sys_price : 10

→ Enter the sys_screensize : 100

→ Enter the sys_color : red

↗ :

↘

↘

Like wise
for 5 times.

→

chirodeep bani

→ sys-name : lap!

sys-9d : P6-545

sys-price : 10.00

sys-screensize : 100

sys-colon : red

→
↗
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(
(
(

the other 5

entries.

Dureadeep Banik