National College of Computer Studies (NCCS)

BIM First Semester: C programming lab sheet 9

- 1. Write a program to store and print the roll_no, name, age and marks of a student using structures.
- 2. WAP to create a structure named Employee having members emp_id, emp_name, emp_post, and emp_salary. Read the data of an employee and display it on screen. 3. Modify question number 2 to read information of 10 Employees and display them. 4. Modify question number 3 and display the information of Employees having salary greater than 15000.
- 5. Write a program to store the roll no. (starting from 1), name and age of 5 students and then print the details of the student whose roll no. is 2.
- 6. Create a structure named Date having day, month and year as its elements. Store the current date in the structure. Now add 45 days to the current date and display the final date.
- 7. The given below is the data of average rainfall of the first half year of five different cities. You are to write a program, which performs the following tasks.

"Rainfall of the first half of year"

Jan Feb Mar Apr May Jun

Kathmandu 32 42 45 23 39 12

New Delhi 12 23 12 43 23 23

Bankok 23 24 12 32 52 31

Tokyo 30 42 45 23 39 12

Colombo 12 34 24 43 23 23

- i) Create a user defined structure that can store the above data
- ii) Display this data exactly the same format as given
- 8. Write a program that creates a struct called student with following components as building blocks.

```
Struct student
{
    int roll;
    char name[20];
    char s_name[20];
    int marks[5];
    int total;
};
```

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Now read following data to your variables

| Rol | Name | С | English | Math | Mana | |
|-----|--------------------|-----|---------|------|------|----|
| 1 | Anup KC | 100 | 98 | 80 | 70 | 50 |
| 2 | Pradhanta Bhandari | 100 | 99 | 85 | 75 | 60 |
| 3 | Sabin Ghalan | 100 | 99 | 82 | 76 | 55 |
| 4 | Ruby KC | 100 | 95 | 79 | 75 | 45 |
| 5 | Nabaraj Pandey | 100 | 96 | 79 | 73 | 60 |

- a) Display the data in exact format as given above.
- b) Find the total of each student
- c) Display them in Descending order in a format similar to above
- d) Find average marks in Programming
- e) Find the percentage of Nabaraj
- f) Display the name of Topper
- g) Find the average marks of student.
- 9. Write a structure to store the name, account number and balance of customers (more than 10) and store their information.
- a. Write a function to print the names of all the customers having balance less than \$200. b. Write a function to add \$100 in the balance of all the customers having more than \$1000 in their balance and then print the incremented value of their balance. 10. Write a function to add two dates entered by user. Make a structure named Date to store the elements day, month and year to store the dates. Pass the structure into function. 11. Write a structure to store the names, salary and hours of work per day of 10 employees in a company. Write a program to increase the salary depending on the number of hours of work per day as follows and then print the name of all the employees along with their final salaries.

| Hours of work per day | 8 | 10 | >=12 |
|-----------------------|------|-------|-------|
| Increase in salary | \$50 | \$100 | \$150 |

| 12. Create an union name with members firstname, middlename and lastname. Write a program that inputs values and store in members. Also displays the values of members. | | | | | | |
|---|--|--|--|--|--|--|
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