



EASTERN UNIVERSITY, SRILANKA
DEPARTMENT OF MATHEMATICS

^{FIRST}
SECOND EXAMINATION IN SCIENCE - 2009/2010
FIRST SEMESTER (June. /July., 2011)

CS152 – PRACTICAL WORK ON INTRODUCTION TO PROGRAM
DESIGN AND PROGRAMMING
(Proper & Repeat)

Answer all questions.

Time : 2 Hours

Declare a structure for an employer record consisting of the following fields:

```
emp_name
emp_id
address
sex
basic_Salary
allowance
unit
charge
total_Salary
```

(Note: In this structure, 'unit' denotes the units of electricity consumed by the employee who resides in the quarters and 'charge' denotes the electricity charge)

Write a C++ programme to do the following:

- Read the necessary data (Emp_name, Emp_id, Address, Sex, Basic_Salary, Allowance and unit) from the keyboard for 5 Employees.
- Write a function to calculate and set the **charge** fields of all employees with the following :
 - If they consumed less than 90 units, then the charge per unit is Rs. 9
 - If they consumed between 90 and 180 units, then the charge per unit is Rs. 15
 - If they consumed more than 180, then the charge per unit is Rs. 20(Charge = unit * charge per unit)

- Write a function to Calculate and set the Total_salary field of all employees with the following formula.

$$\text{Total_salary} = \text{Basic_salary} + \text{allowance} - \text{charge}$$

- Display *all employees emp_name and charge detail.*
- Write a function to return the *maximum* of Total_Salary among all five employees
- Write a function to return the *minimum* of Total_Salary among all five employees
- Write a function to return the *average* of Total_Salary of *all* five employees
- Print *maximum, minimum and average* Total_Salary of all five employees.

Time: 2 hours

Answer all questions.

Declare a structure for an employee record consisting of the following fields:

```
emp_name
emp_id
address
sex
basic_salary
allowance
unit
charge
total_salary
```

(Note: In this structure, 'unit' denotes the units of electricity consumed by the employee who resides in the quarters and 'charge' denotes the electricity charge.)

Write a C++ program to do the following:

- Read the necessary data (emp_name, emp_id, Address, Sex, Basic_Salary, Allowance and unit) from the keyboard for 5 employees.

- Write a function to calculate and set the charge fields of all employees with the following:

- If they consumed less than 90 units, then the charge per unit is Rs. 15
- If they consumed between 90 and 180 units, then the charge per unit is Rs. 20
- If they consumed more than 180, then the charge per unit is Rs. 25