



**EASTERN UNIVERSITY, SRI LANKA**  
**DEPARTMENT OF MATHEMATICS**  
**EXTERNAL DEGREE EXAMINATION IN SCIENCE**  
**FIRST YEAR EXAMINATION IN SCIENCE (2008/2009)**  
**FIRST SEMESTER ( Jun / Sept, 2015 )**  
**EXTCS 152 – PRACTICAL WORK ON EXTCS103**  
**REPEAT**

ANSWER ALL QUESTIONS

TIME: TWO HOURS

1. Write a program to calculate the sum of given two numbers.
2. Write a program which accepts amount as integer and display total number of Notes of Rs. 500, 100, 50, 20, 10, 5 and 1.  
For example, when user enter a number, 575,  
the results would be like this...  
500: 1  
100: 0  
50: 1  
20: 1  
10: 0  
5: 1  
1: 0
3. In a company an employee is paid as under:  
If his basic salary is less than Rs. 1500, then HRA = 10% of basic salary and DA = 90% of basic salary.  
If his salary is either equal to or above Rs. 1500, then HRA = Rs. 500 and DA = 98% of basic salary.  
Gross salary = basic salary + HRA + DA.  
If the employee's basic salary is input by the user write a program to find his gross salary.
4. Write a program to calculate the monthly telephone bills as per the following rule:  
Minimum Rs. 200 for upto 100 calls.  
Plus Rs. 0.60 per call for next 50 calls.  
Plus Rs. 0.50 per call for next 50 calls.  
Plus Rs. 0.40 per call for any call beyond 200 calls.

5. Write C++ program to print following patterns using *for-loops*:

(i)

```
1
2 1 2
3 2 1 2 3
4 3 2 1 2 3 4
```

(ii)

```
*
* *
* * *
* * * *
* * * * *
* * * * * *
```

6. Write a program to calculate the factorial value of any integer.
7. Write a C++ program to find the largest and smallest element of an array.
8. Write a program to count number of words in a string.