2017

M.Sc.

3RD SEMESTER EXAMINATION

COMPUTER SCIENCE

PAPER—COS-305

(PRACTICAL)

Full Marks : 50

Time : 6 Hours

The questions are of equal value.

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

(*Advanced Operating System Lab*)

Answer any *one* question (lottery basis) : 1×35

1. Write a shell script which reads two file names as arguments and checkes whether the two files' contents are same or not. If they are same, second file should be deleted.

2. Write a shell script to find the sum of digits of an integer.

3. Write a shell script which accepts marks obtained by a student in four different subjects and finds the percentages of marks. The scripts also determines the grade : A/B/C/D if the percentage obtained by the student is in range of : >80/≥60 to <80/ /≥40 to <60/ <40 respectively.

4. Write a shell script to count the number of odd and even digits in a given integer.

5. Write a shell script which receives an argument and checks whether the argument supplied is a file or a directory. If it is a directory it should be appropriately reported. If it is a filename then the name of the file as well as the number of lines present in it should be reported.

6. Write a shell script which accepts a directory name as argument and prints all file names of the files whose size is exceeding 1000 bytes.

7. Write a shell script which accepts two integers as arguments and determines the value of one number raised to the power of another.

8. Write a shell script which asks the user to enter a character and then determines whether the user entered

a small case lettter, a capital case letter, a digit or a special symbol.

9. Write a shell script to calculate the factorial of an integer.

10. Write shell script which receives a filename as an argument. The shell script should check whether any file with such a filename exists in the current directory. If it exists then the content of the file should get printed. If not, then an empty file with that name should be created in that directory.

11. Write a shell script to determine if an integer is prime or not.

12. Write a shell script to display the list of all files in the current directory to which any user has read, write and execute permissions.

Viva-Voce — 10 Marks

Practical Note Book — 5 Marks