CS-63

BACHELOR OF COMPUTER APPLICATION (BCA) (Pre-Revised) Term-End Examination

June, 2020

CS-63 : INTRODUCTION TO SYSTEM SOFTWARE

Time : 2 Hours   *Maximum Marks : 60*

Note : (i) Question No. 1 is compulsory.

(ii) Attempt any three questions from the rest.

1. (a) Write an algorithm and draw a corresponding flowchart to find greatest common divisor (GCD) for the two given numbers.   10

(b) Describe the directing structure of UNIX operating system. Show an example of creating a "XYZ' directory and within it create a subdirectory "ABC" and a file "pqr.c".   10

(c) What is the function of a loader ? Discuss different loader schemes.   10

2. (a) Write about the CPU scheduling and memory management in UNIX.   5

(b) Compare and contrast the features of Network O/S and Distributed O/S.   5

3. (a) List and explain necessary conditions for the occurrence of a Deadlock.   4

(b) Explain the address translation scheme in a segmented system with the help of a necessary diagram.   6

4. (a) Explain the concept of virtual memory. Give at least *three* advantages of it.   5

(b) Write UNIX commands for the following :

$$5 \times 1 = 5$$

(i) To display the test 5 lines of a given file.

(ii) To count the no. of words in a file

(iii) To run a process at the background

(iv) To change the text of a file from lower case to upper case.

(v) To concatenate 2 files and redirect the o/p to a 3rd file.

5. (a) What is X-windows ? Mention at least *four* features which differentiate it from other o/s.   5

(b) Write regular expressions for the following statements of C language :   5

(i) Assignment statement

(ii) GOTO statement