BCA(Hons) Semester - III Examination, 2020
Subject: Unix and Shell Programming
Paper Code: BCA 305

F.M:80   **Time: 3 Hrs.**

A. Answer any *five* Questions.   5x10=50

1. How can you say that UNIX Operating System provides more security than other Operating Systems? Briefly explain the i-node structure of UNIX file system.   5+5

2. How do you add and delete a user in UNIX? Explain how to display and set the terminal characteristics of a UNIX Operating System. 4+6

3. What do you mean by hard link and soft link? Demonstrate these with suitable examples. Explain **chmod** command in UNIX with suitable example.   6+4

4. Explain internal and external commands. Discuss **Head** and **Tail** commands. 5+5

5. Briefly state the different loops and their usage in Shell script. Write a Shell script to print the month of March in 2021.   5+5

6. Write the operations that can be performed on both directories and files. Distinguish between time-sharing and client/server environment.   4+6

7. Write a Shell script to print the sum of digits of a given integer. Discuss the navigation commands in vi editor with examples. 5+5

B. Answer any *six* Questions. 6x5=30

1. Discuss different features of UNIX Operating System.

2. What information is presented when the following commands are entered? (i) **date**, (ii) **passwd**, (iii) **echo**, (iv) **who**, (v) **script**, (vi) **bc**.

3. Discuss Kernel-Shell architecture of UNIX system.

4. Describe the concept of pipe in UNIX.

5. Write a Shell script that merges the content of three files (taken as input) and display the content of that merged file.

6. How can you search a particular pattern in UNIX?

7. Write a Shell script that calculates factorial of a given number.

8. What are the different ways of setting file permissions?