B.E. (Computer Engineering) Eighth Semester (C.B.S.)

UNIX & Shell Programming

P. Pages : 2 **NRT/KS/19/3710**

Time : Three Hours * 0 8 0 5 * Max. Marks : 80

Notes : 1. All questions carry marks as indicated.
2. Solve Question 1 OR Questions No. 2.
3. Solve Question 3 OR Questions No. 4.
4. Solve Question 5 OR Questions No. 6.
5. Solve Question 7 OR Questions No. 8.
6. Solve Question 9 OR Questions No. 10.
7. Solve Question 11 OR Questions No. 12.

1. a) Explain the Unix operating system from user perspective. **7**

b) Write a shell script to check whether the user eligible for note or not ignore the month. **7**

OR

2. a) Write a shell script to find whether a given string is palindrome or not. **6**

b) Explain the following commands with suitable example. **8**

i) WC

ii) Who

iii) IS

iv) Write

3. Explain the architecture of Unix 0.5. Also draw block diagram of system kernel & explain every block. **13**

OR

4. a) Write short note on kernel data structure. **7**

b) Explain the Unix file system in details. **6**

5. a) Which type of fields includes in super block & disk inode. **7**

b) Explain the buffer allocation algorithm. **6**

OR

6. a) Which type of fields includes in disk inode explain in details. **6**

b) Describe the structure of a regular file in Unix 0.5. **7**

7. Write short on **any three.** **13**

i) Process creation.

ii) Signal.

iii) User ID of a process.

iv) Process termination.

OR

8. a) Explain Read and write system calls. **6**

b) Explain mounting and Unmounting of file system with example. **7**

9. a) Explain shut down command with various option. **4**

b) Explain system boot and Init process. **4**

c) Write down different signal used in UNIX system. **6**

OR

10. Draw and explain complete process of state transition diagram. **14**

11. Write short note on **13**

i) Sockets.

ii) Inter process communication.

iii) Disk Drivers.

OR

12. a) Write short note on **6**

i) System boot

ii) Network communication.

b) Explain trouble shooting network problem. **7**

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