

Code No: 127EE

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year I Semester Examinations, May/June - 2019****LINUX PROGRAMMING****(Computer Science and Engineering)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART- A****(25 Marks)**

- 1.a) Explain briefly about Associative Arrays. [2]
- b) Write a short note on Disk Utility. [3]
- c) What is a Regular File in UNIX System? [2]
- d) Write a short note on "lseek". [3]
- e) Differentiate between Threads and Processes. [2]
- f) Write a short note on Environment Variables. [3]
- g) Write a short note on IPC. [2]
- h) Explain briefly about "popen" library function. [3]
- i) What is a Socket? [2]
- j) Write a short note on "fcntl" system call. [3]

**PART-B****(50 Marks)**

2. Explain in detail about Text Processing Utilities and Backup Utilities. [10]
- OR**
- 3.a) Write a detailed note on Shell Responsibilities. [5+5]
- b) Explain in detail about Shell Meta Characters. [5+5]
4. Explain in detail about following File Operations :  
a) open      b) creat      c) read      d) write [10]
- OR**
5. Explain in detail about File Ownership Commands. [10]
6. Explain in detail about Process Creation Mechanism. [10]
- OR**
7. Write a detailed note on following functions:  
a) kill      b) raise      c) alarm      d) pause [10]
- 8.a) Discuss about Kernel support for Message Queues. [5+5]
- b) Demonstrate client/server communication using message queues. [5+5]
- OR**
9. Explain in detail about IPC between unrelated processes using FIFO's. [10]

10. Explain in detail about Socket System Calls for Connection Oriented and Connection less protocol. [10]

**OR**

11. Write a short note on API's for Shared Memory. [10]

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