

Code No: 117EE

R13**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year I Semester Examinations, April/May - 2018****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) Write a short note on Filters. [2]
- b) What is a Field Buffer and a Record Buffer. [3]
- c) Explain briefly FIFO file in UNIX File System. [2]
- d) Write a short note on "mkdir" command. [3]
- e) Write a short note on Signal function. [2]
- f) Compare and Contrast Reliable and Unreliable Signals. [3]
- g) Write a short note on UNIX system V IPC methods. [2]
- h) Write a short note on "rclose()" library function. [3]
- i) Explain briefly about "setsockopt" system call. [2]
- j) Write a short note on Berkeley Socket. [3]

PART-B**(50 Marks)**

2. Explain in detail about Control Structures. [10]
OR
- 3.a) Explain in detail about Process Utilities. [5+5]
- b) Write a short notes on security using file permissions. [5+5]
4. Explain in detail about following File Operations: [5+5]
a) seek b) fcntl
OR
5. Explain in detail about File and Record Locking in UNIX. [10]
6. Explain in detail about Kernel support for Signals. [10]
OR
7. Write a detailed note on following processes: [5+5]
a) Zombie processes b) Orphan processes.
8. Explain in detail about IPC between related processes using unnamed pipes. [10]
OR
9. Explain in detail about Kernel support for Semaphores. [10]

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10. Make a comparison of various IPC mechanisms.

[10]

OR

11. Explain the usage of Stream Sockets using Client-Server Message handling example.

[10]

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