

Code No: 5158K

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech II Semester Examinations, October - 2015

ADVANCED NETWORK PROGRAMMING

(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 60

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit.

Each question carries 8 marks and may have a, b, c as sub questions.

PART - A**5 × 4 marks = 20**

1. a) Write a short note on Linux Filter commands. [4]
- b) Write a short note on UNIX file permissions. [4]
- c) Compare and contrast Pipes and FiFOs. [4]
- d) Write a short note on internet socket address formats. [4]
- e) Explain the significance of multithreaded servers in client-server computing. [4]

PART - B**5 × 8 marks = 40**

2. Briefly explain the Text processing and backup utilities. [8]

OR

3. Write a bourne shell program to compute whether the given number 'm' is prime or not. [8]

4. Explain the significance of the following system calls in UNIX process management.

a) fork () b) wait () c) waitpid() d) sleep(). [8]

OR

5. Write a c program illustrating file and record locking. [8]

6. Explain the concept of Semaphores. [8]

OR

7. Explain the significance of the following system calls in UNIX signals:

a) kill () b) abort () c) alarm () d) raise () [8]

8. What is shared memory? Explain the kernel support for shared memory in detail. [8]

OR

9. Write short notes on the following terms:

a) Socket b) Socket pair c) Three-Way handshaking
d) Four-Way handshaking e) socket address. [8]

10. What is concurrent server? Explain the procedure to create concurrent servers in java. [8]

OR

11. Write a java program illustrating TCP echo client-server interaction. [8]