The Oxford College of Engineering – Bengaluru

Department of Computer Science and Engineering

18CS56-Unix Programming

Assignment No:3

Syllabus: Module 4 & 5 Submission Deadline: 19.01.2023

1. With a neat block schematic, explain how FIFO can be used to implement client-server communication model.
2. Explain the concept of shared memory with an example C/C++ program
3. What are pipes? What are their limitations? Write a c program that sends a “hello world” message to the child process through the pipe. The child on receiving this message should display it on the standard output
4. Explain the different functions available for transmitting and receiving data over a socket.
5. Explain in brief about message queues.
6. What is a STREAMS-Based pipe? Explain it with the program. How stream pipe is better than a pipe?
7. Explain signal and signal mask API
8. Explain Sigsetjmp() and siglongjmp() APIs with example
9. Explain daemon processes and enlist their characteristics. Also write a program to transform a normal user process into a daemon process. Explain every step in the program
10. Explain the prototypes of following APIs:
    (i) Signal (ii) Kill (iii) Alarm (iv) sigaction