K.S INSTITUTE OF TECHNOLOGY, BENGALURU-560109

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

18CS56–UNIX PROGRAMMING

EXHAUSTIVE QUESTION BANK

Module 5

1. What is signal? Explain different conditions or an event generates the signal; explain any five POSIX defined signals.
2. What is signal? Explain how to setup signal handlers?
3. Explain UNIX kernel support for handling signals.
4. What is signalmask? Explain with an example the use of signal mask.
5. Explain following signal APIs with their prototypes and uses, sigprocmask, Sigpending and sigaction.
6. Write the prototypes of all functions that are used to manipulate the signal sets.
7. Explain with an example 1) kill and raise functions 2) alarm functions.
8. Write a program to setup a real time clock interval timer using the alarm API.
9. Write a program to setup a real time clock interval timer using the settimer API.
10. What is alarm API? Give the prototype of alarm API. How can the alarm API be used to implement sleep API
11. List the timer manipulation API's in POSIX.1b
12. Explain three ways to generate log messages.
13. Explain SIGCHLD signal and waitpid API with an example. Write a program to avoid zombie using signal.
14. Explain with an example the sigsetjmp and siglongjmp functions.
15. Discuss Daemon characteristics and coding rules with an example.
16. Write functions that can be called from a program that wants to initialize itself as a Daemon.
17. Write a note on error logging.
18. What is a Signal?Write a program to setup a signal handler for the SIGINT signal using sigaction API.
19. What is daemon process?
20. Explain Kill API with programming example. Also explain kill command with an example.

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21. Categorize the ways in which the process can handle signals.
22. Write a C program that checks weather SIGINT signal is present in process signal mask and adds it to the mask if it is not there. It should clear SIGSEGV signal from signal mask.
23. Write a program to transform normal user process to deamon process. Explain every step in it