

**Q.2** a. Explain architecture of UNIX operating system through a diagram.

**Answer: Page Number 1 & 2 of Text Book**

b. Explain the different time values used in the UNIX System.

**Answer: Page Number 20 of Text Book**

c. Explain the properties of fcntl function in detail.

**Answer: Page Number 78, 79 of Text Book**

**Q.3** a. Describe the various types of files available in UNIX system.

**Answer: Page Number 88, 89 of Text Book**

b. What are file access permissions? List all commands to alter the file permissions.

**Answer: Page Number 92, 93, 94 of Text Book**

c. What is the meaning of “symbolic link” in UNIX file system?

**Answer: Page Number 112, 113 of Text Book**

**Q.4** a. Explain the different functions used in binary I/O and formatted I/O?

**Answer: Page Number 143-147 of Text Book**

b. What is a shadow password file? Who has access to content of shadow password file?

**Answer: Page Number 165, 166 of Text Book**

**Q.5** a. Explain all variants of fork functions.

**Answer: Page Number 211 of Text Book**

b. Explain the working of wait function with the examples.

**Answer: Page Number 220-222 of Text Book**

**Q.6** a. Explain various methods of terminating a process in detail.

**Answer: Page Number 180-184 of Text Book**

b. Explain concept of process groups in detail.

**Answer: Page Number 269-270 of Text Book**

**Q.7** a. Explain the use and functioning of signal function in detail.

**Answer: Page Number 298-301 of Text Book**

b. What is a re-entrant function? Explain.

**Answer: Page Number 305-308 of Text Book**

**Q.8** a. Draw the diagram of BSD syslog facility. Explain the three ways to generate log messages.

**Answer: Page Number 368-369 of Text Book**

- b. What is daemon? What are its characteristics? List some daemons on UNIX System?

**Answer: Page Number 423-425 of Text Book**

- Q.9** a. Explain implementation of Semaphores in UNIX and also explain the function calls associated with this IPC mechanism.

**Answer: Page Number 527-533 of Text Book**

- b. Explain Message Queues with the data structure used in the queue implementation.

**Answer: Page Number 522-527 of Text Book**

**Text Book**

Advanced Programming in the UNIX Environment, W. Richards Stevens, Pearson Education, 2004