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