Q.2 a. **With the help of a diagram, explain the architecture of the UNIX operating system.**

Answer: Page 2 of Text Book 1

   b.   **Write a program to turn on one or more of the status flags for a descriptor.**

Answer: Page 81 of Text Book 1

Q.3a.   **A file size of 0 is valid for a regular file. The *st_size* field is defined for directories and symbolic links. Should we ever see a file size of 0 for a directory or a symbolic link?**

 Answer: Page 112 of Text Book 1

   b.   **What is the purpose of following functions? Explain briefly using example. mkdir, rmdir, chdir, fchdir**

Answer: Page 125 of Text Book 1

Q.4 a.   **What are the two functions that are provided by the standard I/O library to assist in creating temporary files? Write a program demonstrating these two functions.**

Answer: Page 155 to 156 of Text Book 1

   b.   **What are the three functions in Linux to fetch and set the supplementary group IDs? Describe.**

Answer: Page 167 of Text Book 1

 Q.5   **a. Describe the similarities and differences between *wait* and *waitpid* functions.**

Answer: Page 220 of Text Book 1

b.   **What is a *zombie*? Write a program that creates a *zombie*.**

Answer: Page 219 to 220 of Text Book 1

Q.6   **a. With the help of a diagram, describe the typical memory arrangement of a C program.**

Answer: Page 188 of Text Book 1

b.   **Why are the logout records written by the init process? Is this handled the same way for a network login?**

Answer: Page 266 of Text Book 1

Q7   Write brief notes on the following:

        (i)   Kill and raise function
        (ii) Alarm and pause function

Answer: Page 311 & 313 of Text Book 1

Q8. a. Define daemon processes. Mention coding rules for daemon processes.

Answer: Page 423, 425 of Text Book 1

   b.   **Write a program that prints the current window size and goes to sleep. Each time the window size changes, SIGWINCH is caught and the new size is printed. We have to terminate the program with a signal.**

Answer: Page 670 Text Book 1

Q9 a. How is Semaphores implemented? Explain with example.

Answer: Page 527of text Book 1

b.   **Explain the fopen and fclose functions.**

Answer: Page 503 of text Book 1

Text Book

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