Module - 3 Assessment

1.

1. SIGINT
2. SIGKILL
3. SIGILL
4. SIGSEGV

2.

1. To execute the current file -> run [args]
2. To create a break point -> break [function name],
3. To resume the execution after the breakpoint -> continue
4. To clear a breakpoint created for a function -> clear [function name]
5. Print the parameters of the function in backtrace -> bt

3.

Output: 7

4.

Outuput:

2414

1434

1. Race condition can be avoided by writing the shared piece of code in critical section, so that the thread can wait until another thread access the code in the critical section.

The deadlock can be avoided by using mutex. If both the thread wanted to use the shared resources, the shared resource can be locked using the mutex and unlocked after the thread completes the task and hence the deadlock can be avoided.

1. Exec function is used to replace a current running process with the new process, whereas, the fork() function is used to create a new process.
2. The process is the task that are created by the program whereas, threads are the subtask that are created from the process.