Advanced Unix programming – Quiz7

Time limit: 12 minutes

1. (1 point) Which of the following functions is used to wait for a thread to terminate?

   (a) pthread_detach
   (b) pthread_exit
   (c) pthread_join
   (d) pthread_self

   C.

2. (1 point) Which of the following functions is used by a thread to obtain its ID?

   (a) pthread_detach
   (b) pthread_exit
   (c) pthread_join
   (d) pthread_self

   D.

3. (1 point) Which of the following functions is used by a thread to terminate itself?

   (a) pthread_detach
   (b) pthread_exit
   (c) pthread_join
   (d) pthread_self

   B.

4. (1 point) If a thread knows that no thread cares about its return value, then which of the following functions does it call to indicate that resources associated with it can be released on termination?

   (a) pthread_detach
   (b) pthread_exit
   (c) pthread_join
   (d) pthread_self

   A.

5. (1 points) Which of the following is shared by all threads in a process?

   (a) Stack
   (b) Program counter
   (c) File descriptors
   (d) errno

   C.

6. (2 points) Write a code fragment that creates a thread that executes a function called f. The NULL pointer is passed as an argument to this function.

```
pthread_t tid;

pthread_create(&tid, NULL, f, NULL);
```

7. (3 points) Declare and initialize an object that can be used for mutual exclusion. Then use it with *pthreads* functions that support mutual exclusion, so that the following statement can be executed only by one thread at a time.

```
pthread_mutex_t ME = PTHREAD_MUTEX_INITIALIZER; /* Or call
  pthread_mutex_init(&ME,NULL) instead of static initialization */

pthread_mutex_lock(&ME);
counter++;
pthread_mutex_unlock(&ME);
```