Advanced Unix programming – Quiz6

Time limit: 12 minutes

1. (1 point) Which scheme did we use in class to impose flow and error control in a UDP application?

   (a) Check sum
   (b) Sliding window protocol
   (c) Thundering herd
   (d) Positive acknowledgment with retransmission

   D.

2. (1 points) Which of the following is **not** mentioned in the text as a possible reason for retransmission?

   (a) The request (original message) is lost
   (b) The client received an RST
   (c) The reply (acknowledgment) is lost
   (d) The retransmission timeout is too small

   B.

3. (2 points) Which of the following is **not** a feature **we** added, to make the UDP client/server reliable?

   (a) Handshake
   (b) Timeout and retransmission
   (c) Checksum
   (d) Sequence number

   C.

4. (1 point) Which of the following is used to create a POSIX thread?

   (a) pthread_connect
   (b) pthread_create
   (c) pthread_socket
   (d) pthread_accept

   B.

5. (1 point) In which of the following cases can a Unix domain protocol be used?

   (a) Client and server are on the same host, running Linux.
   (b) Client and server are on two different hosts, both running Solaris.
   (c) Client is on a host running Solaris, and server is on a host running Linux.
   (d) Client is on a host running Linux, and server is on a host running Solaris.

   A.

6. (1 point) Give arguments to the socket system call to create a (datagram or byte stream) Unix domain socket. Your answer may conform either to the POSIX specification, or with the example discussed in class.

```
socket(AF_UNIX /* or AF_LOCAL */, SOCK_STREAM, 0 );
```

7. (3 points) Declare a variable that can store the address information of a unix domain socket, and use it to bind a socket descriptor, say sockfd, to */tmp/junk*.

```
struct sockaddr_un addr;

memset(&addr, 0, sizeof(addr)); /* or set a '\0' later */
addr.sun_family = AF_UNIX; /* or AF_LOCAL */
strncpy(addr.sun_path, ``/tmp/junk'', sizeof(addr.sun_path)-1);
bind(sockfd, (struct sockaddr *) &addr, sizeof(addr));
```