

ITS332 – Quiz 2

Name: _____

ID: _____

Mark: _____ (out of 5)

Some questions ask you to give a C function name as an answer. You can select from the following functions: accept, bind, bzero, close, connect, exit, fgets, fork, listen, read, socket, sprintf, sscanf, strcpy, write.

Question 1 [2 marks]

Which function

- a) blocks until the server receives a connection setup request?
- b) creates a new process?

Question 2 [2 marks]

Assuming a TCP connection has been established between host A and host B, consider the following code that executes on the hosts, assuming the program on Host B is running and then the program on Host A starts:

Host A

```
strcpy(var1, "message1");  
strcpy(var2, "message2");  
strcpy(var3, "message3");  
sprintf(var1, "%s message4 %s", var2, var3);  
write(sockid, var1, strlen(var1));  
n= read(sockid, var4, 100);  
printf("%s", var4);
```

Host B

```
strcpy(var1, "message1");  
n = read(sid, var2, 100);  
strcat(var2, var1);  
write(sid, var2, strlen(var2));
```

- a) How many bytes are in the TCP Data segment (excluding header) sent from Host A to Host B? [1 mark]
- b) What is printed on the screen at Host A? [1 mark]

Question 3 [1 mark]

HTTP is used for web browsers to request files from web servers. The format of a request message is:

GET *url* HTTP/1.1

and the format of a response message is:

HTTP/1.1 *statuscode*

where common status codes are:

200 Ok

304 Not Modified

401 Unauthorized

404 Not Found

Consider two web servers, www.example1.com and www.example2.com, with the following files in their root web directory:

www.example1.com	www.example2.com
file1.html	file1.html
file1.jpg	file2.html
file2.html	file3.html

Draw a diagram indicating the messages sent between browser and server if the browser user types in the URL www.example1.com/file1.html into the address bar.