

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) stops an existing 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,"string01");  
strcpy(var2,"string02");  
printf("%s",var1);  
fgets(var3,255,stdin);  
write(socketid,var2,strlen(var2));  
n = read(socketid,var4,255);  
printf("%s",var4);
```

Host B

```
strcpy(var1,"string01");  
strcpy(var2,"string02");  
n = read(sid,var3,255);  
strcat(var1,var3);  
n = write(sid,var1,strlen(var1));  
printf("%s",var3);
```

- 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, and the requested file is password protected.