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| **National University of Computer and Emerging Sciences, Lahore Campus** | | | | |
| C:\Users\saif\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\final design.jpg | **Course:** | **Computer Networks** | **Course Code:** | **CL-307** |
| **Program:** | **BS(Computer Science)** | **Semester:** | **Spring 2018** |
| **Duration:** | **20 Minutes** | **Total Marks:** | **25** |
| **Paper Date:** | **9-March-18** | **Weight** | **4%** |
| **Section:** | **A** | **Page(s):** | **4** |
| **Exam:** | **Quiz 2** | **Reg. No.** |  |
| **Instruction/Notes:** |  | | | |

**Part 1 (Marks: 5)**

**Explain the different steps involved in Client-Server Communication using UDP Socket Programming with the help of Block Diagram: (5)**

**Part 2 (Marks: 5)**

1. **What information is needed to create a TCP Socket? What does it return?(2)**
2. [**When should we use UDP instead of TCP?**](https://www.softlab.ntua.gr/facilities/documentation/unix/unix-socket-faq/unix-socket-faq-5.html#ss5.1) **Give at least four reasons: (2)**
3. **How can you find the IP address of the website** [**www.youtube.com**](http://www.youtube.com) **using linux command (write command in proper format)? (1)**

**PART 3 [15 Points]**

**Select an appropriate answer for each of the following questions.**

1. UDP is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ transport layer protocol.

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| 1. connectionless, reliable |
| 1. connection-oriented, unreliable |
| 1. connectionless, unreliable |
| 1. None of the choices are correct |

1. **Which combination of family and type of socket is used to create a datagram socket  
   Select one:**A. AF\_ROUTE, SOCK\_DGRAM B. AF\_INET, SOCK\_DGRAM  
   C. AF\_INET, SOCK\_STREAM D. AF\_KEY, SOCK\_DGRAM
2. The main advantage of UDP is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
   A. More overload B. Reliable C. Less overload D. None
3. The combination of an IP address and a port number is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Network address C. MAC address
5. Socket addresses D. None of the choices are correct
6. An IPv6 address is \_\_\_\_\_\_\_\_\_\_ bytes long.
7. 16 B. 128 C. 32 D. None
8. What is the default packet size for ping command on Linux System?
9. 32 \* 8 bits B. 32 bits C. 32 \* 16 bits D. 32 \* 2 bits
10. Which of the following function puts the server in blocking state in TCP Socket Programming until client sends connection request?  
    A. Recv() B. Listen() C. Accept() D. both A and B
11. MAC Address of machine can be found using which Linux command:
12. Host –s MAC B. ipconfig
13. Both a & b D. None of these
14. Which one is incorrect Port No?
15. 65535 B. 241 C. 30987 D. None
16. Which of the following functions does UDP perform?
17. process-to-process communication C. End-to-end reliable data delivery
18. both A and C D. None of the choices are correct
19. Which statement about capture filters is correct (SELECT ALL THAT APPLY)?
20. Capture filters can be applied after the capture process begins
21. Capture filters can be applied while you are opening a trace file
22. Wireshark includes a default set of capture filters
23. Which Display filter will show only packets for the source address of 192.168.0.25?
24. Ip.addr == 192.168.0.25 src
25. Ip.src == 192.168.0.25
26. !ip.src == 192.168.0.25
27. Which display filter operator is the equivalent of AND?
28. $$
29. &&
30. ||
31. Can socket stream send data without a connection?
32. A connection needs to be established to send/receive data.
33. NO
34. Can be
35. Write a capture filter that would filter all the traffic coming from Google or Facebook on UDP Ports 20 or 21(Server Side Port Numbers) to your PC (Suppose Google IP: **G.G.G.G** & Facebook IP: **F.F.F.F**)