CBCS SCHEME

USN

Fourth Semester M.Tech. Degree Examination, June/July 2019
Client Server Programming

Time: 3 hrs.   Max. Marks: 80

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1   a.   Differentiate between stateless and stateful servers. With an example, explain pros and cons of stateful server.   **(08 Marks)**
    b.   Explain concurrency in networks and in servers. With the code, illustrate the concurrent processing in the UNIX operating systems.   **(08 Marks)**

OR

2   a.   Explain the software interface functionalities and the basic I/O functions available in UNIX.   **(08 Marks)**
    b.   What do you mean by loosely specified protocol software interface? List and explain the advantages and disadvantages of it.   **(08 Marks)**

Module-2

3   a.   List and explain the different system calls used with sockets.   **(08 Marks)**
    b.   Illustrate with example code how the client software look up a domain name and well known port by name.   **(08 Marks)**

OR

4   a.   Explain the several methods a client can identify the location of a server.   **(08 Marks)**
    b.   Write the algorithm for TCP client and UDP client.   **(08 Marks)**

Module-3

5   a.   Write a program to implement TCP client for DAYTIME Service.   **(08 Marks)**
    b.   Write a program to implement UDP client for ECHO Service.   **(08 Marks)**

OR

6   a.   Explain with code the implementation of UDP client for TIME Service.   **(08 Marks)**
    b.   Write a code for TCP client that access the ECHO Service.   **(08 Marks)**

Module-4

7   a.   Explain the concurrent server, iterative server and the process for optimizing statelessness server.   **(08 Marks)**
    b.   Explain connection oriented and connectionless servers. Discuss about failure , reliability and statelessness with respect to client server communication.   **(08 Marks)**

OR

8   a.   Build an algorithm for iterative connection oriented and connectionless server.   **(08 Marks)**
    b.   Build an algorithm for concurrent connectionless server and concurrent connection oriented server.   **(08 Marks)**

Module-5

9 a. With an implementation code explain the process of creating a passive socket. (08 Marks)
   b. Write a code segment for allocating a passive TCP Socket. (04 Marks)
   c. Illustrate the simple process structure used for an iterative connectionless server. (04 Marks)

OR

10 a. Explain iterative , connection oriented DAYTIME server with an example code. (08 Marks)
    b. Explain the process structure of a concurrent , connection – oriented server. (08 Marks)

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