CSE 322 (R-15)

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III/IV B.Tech. DEGREE EXAMINATIONS, NOVEMBER- 2019

Second Semester

COMPUTER SCIENCE ENGINEERING

NETWORK PROGRAMMING

Time: Three Hours **Maximum marks:60**

Answer Question No.1 Compulsory **6X2=12 M**

Answer ONE Question from each Unit **4X12=48 M**

1. a) Syntax and purpose of listen function
   b) Features of Asynchronous I/O
   c) Limitations of pipes
   d) Syntax of uname function
   e) Brief on Namespaces
   f) Features of raw sockets

UNIT-I

2. a) Distinguish between UDP & TCP protocol.
   b) With the help of a neat sketch explain the steps and buffers involved when an application writes to a TCP socket.

(OR)

3. a) Draw the OSI seven layered model along with the approximate mapping to the internet protocol suite. Explain the functions offered by each layer?
   b) Discuss IPv4 socket address structure and the significance of each field?

UNIT-II

4. a) What socket options are processed by IPv6 with a level of IPPROTO_IPv6? Explain.
   b) Explain the procedure steps for rebooting and shutdown of server hosts.

P.T.O

(OR)

5. Write short note on
   a) Batch input
   b) Shutdown function
   c) Select function
   d) Poll function

UNIT-III

6. a) Explain how the DNS Server maintains and resolves the domain names.
   b) Write a program to implement getaddrinfo() function.

(OR)

7. a) Write briefly about lack of flow control with UDP. List the differences between TCP and UDP.
   b) State the purpose and usage of UDP sockets and explain their different functions.

UNIT-IV

8. a) Explain the concept of FIFOs.
   b) Explain about terminal modes and rlogin.

(OR)

9. Write short notes on the following:
   a) File and Record locking
   b) Rlogin
   c) DNS and RPC transparency.

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III/IV B.Tech. DEGREE EXAMINATIONS, APRIL- 2019

Second Semester

COMPUTER SCIENCE ENGINEERING

NETWORK PROGRAMMING

Time: Three Hours **Maximum marks:60**

Answer Question No.1 Compulsory **6X2=12 M**

Answer ONE Question from each Unit **4X12=48 M**

1. a) Steps involved in obtaining a shared resource by a process
   b) What are the limitations on the size of the IP datagram?
   c) Brief on Signal driven I/O model
   d) What is the need of concurrent server?
   e) Record locking
   f) Pseudo terminals

UNIT-I

2. Write the syntax and explain each of the following socket functions.
   a) Listen b) Close and related c) Connect d) Bind

(OR)

3. a) Explain how TCP connection is established using Three-way handshake protocol?
   b) Explain byte ordering and byte manipulating functions?

UNIT-II

4. a) Explain the proceudre steps for crashing and shutdown of server hosts.
   b) Explain protocol independent socket options.

(OR)

5. Explain various I/O models and differentiate them.

UNIT-III

6. a) Describe the UDP Echo server functions and lost datagram with an example.

P.T.O

b) What are the differences between concurrent servers and iterative servers? Give examples of services handled in iterative and concurrent fashions.

(OR)

7. a) Discuss how the getaddrinfo function handles IPV6 addresses.

b) Write briefly about getsockopt and setsockopt functions.

UNIT-IV

8. a) Discuss the steps that normally take place in a remote procedure call.

b) Illustrate how a process can communicate with other process using a Pipe.

(OR)

9. a) Write a brief on Types of Resources Records (entries in the DNS)

b) Discuss RPC transparency issues.