D 52695 (Pages 2) Name...

Reg. No

TH1 ⟨D SEMESTER M.Sc. DEGREE EXAMINATION, FEBRUARY 2009

Computer Science

CS 303—NETWORK PROGRAMMING AND ADMINISTRATION

(2005 Admission onwards)

Time : Three Hours Maximum : 80 Marks

Part A

Answer any **five** *questions.*
All questions carry equal marks.

1. (a) Explain how connection establishment is done in TCP.

(b) List out the command and responses exchange between the client and server in FTP communication.

2. How is addressing used in internet class structure ? Explain IP packet structure.

3. Compare and contrast message queues and shared memory.

4. Predict the output of the command who! grep "jfc" I we Explain how does it work.

5. (a) Which IP layer protocol is used to handle reporting of errors ? What are the various error reporting messages ?

(b) Explain three-way hand shake.

6. (a) Explain generic socket address structure.

(b) Explain getsockopt and setsockopt functions.

7. Explain different byte manipulation functions.

(5 x 8 = 40 marks)

Part B

Answer any **four** *questions.*
All questions carry equal marks.

8. (a) With suitable diagrams describe the classical IP model and shortcut model.

(b) Explain semaphore.

9. (a) What are the activities involved in Domain name servicing.

(b) Explain TCP / IP reference model.

10. (a) Explain network file system.

(b) What procedures does your local system provide to access the domain name systems.

Turn over

11. (a) Explain elementary TLI functions.

(b) What is remote procedure call.

12. (a) What happens in FTP if the TCP connection being used for data transfer break, but t control connection does not ?

(b) Explain some of the application of SMTP.

13. Write short notes on :—

(i) FTP.

(ii) Steam pipes.

(iii) Asynchronous I/O.

(4 x 10 = 40