

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – III • EXAMINATION – WINTER 2012****Subject code: 732302****Date: 26/12/2012****Subject Name: Internetworking and Application****Time: 10.30 am – 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Draw and explain TCP state transition diagram. **07**
(b) Explain the steps performed by inetd daemon. **07**
- Q.2** (a) Explain TCP connection and termination steps. **07**
(b) Write a program to implement TDP echo server. **07**
OR
(b) Write a program to implement UDP echo server. **07**
- Q.3** (a) Compare IPV4 socket address structure with IPV6 socket address structure. **07**
(b) Explain socket(), connect() and bind() functions that a process calls to perform network I/O. **07**
OR
- Q.3** (a) Explain address conversion functions that convert Internet addresses between ASCII strings and network byte ordered binary values. **07**
(b) Explain socket(), accept() and fork() functions that a process calls to perform network I/O. **07**
- Q.4** (a) Explain TCP client-server from client perspective. **07**
(b) Write short note on POSIX signal handling. **07**
OR
- Q.4** (a) What happens if a Unix domain server calls unlink after calling bind? **07**
Q.4 (b) List various I/O models under UNIX. Explain any two in detail. **07**
- Q.5** (a) Explain select() and poll() functions using an example. **07**
(b) What are socket options? Explain any 4 mostly used options. **07**
OR
- Q.5** (a) Explain syslogd daemon. How it is related with syslog function. Explain its parameters. **07**
(b) What are routing sockets? Which operations are supported on routing sockets? Which privileges are required for each of the operations? **07**
