U – 3728

B. C. A. (Sixth Semester)
EXAMINATION, May/June, 2018

Paper – IV

NETWORK PROGRAMMING

Time : Three Hours

Maximum Marks : 80 (For Regular Students)

Minimum Pass Marks : 32

Note– Attempt *all* questions.

Unit – I

1. (a) Describe the fields in TCP Header format in brief.   8

   (b) Explain the layers in OSI model in brief.   8

Or

   (a) Explain the TCP connection termination with diagram.   8

   (b) Describe Unix standards in brief.   8

Unit – II

2. (a) Describe the socket address structures.   8

P. T. O.

   (b) Explain the byte manipulating functions.   8

Or

   What are types of servers ? Write short notes on any *two* of the following–   16

   (i) Socket

   (ii) Connect

   (iii) Listen

   (iv) Fork.

Unit – III

3. (a) Explain the steps of TCP Echo Server function. What are the boundary conditions ? 8

   (b) Write the steps in normal termination of client/server.   8

Or

   What do you understand by signal disposition ? Write short notes on any *two* of the following–   16

   (i) Sigaction function

   (ii) SIGCHLD Signal

   (iii) SIGKILL and SIGSTOP

   (iv) FIN_WAIT_1 and FIN_WIT_2.

Unit - IV

4. (a) Describe blocking I/o model and non-blocking IO models.   8

   (b) What are generic socket options ? Describe any two.   8

Or

Write short notes on any *two* of the following–   16

(i) SO_KEEPLIVE option

(ii) Batch input

(iii) Shutdown function

(iv) Poll function.

Unit - V

5. (a) Describe socket functions for UDP client/server with diagram.   8

   (b) Explain the summary of UDP client/server from client's perspective.   8

Or

Write short notes on any *two* of the following–   16

(i) Domain name system

(ii) Explain lack of flow control with UDP

(iii) Determining outgoing interface with UDP