WARNING
1. PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.
2. SUBMITTING ASSIGNMENTS BORROWED OR STOLEN FROM OTHER(S) AS ONE’S OWN WILL BE PENALIZED AS DEFINED IN “AIOU PLAGIARISM POLICY”.

ASSIGNMENT No. 1

Note: All questions carry equal marks.

Q. 1 What is Winsock. How it is created and Initialize? Also discuss its characteristics.

Q. 2 Discuss in detail different socket modes and explain their usage with the help of examples. Also describe the Winsock cataloging in detail.

Q. 3 a) What are the prominent features of IPv4.
     b) How to write applications that works seamlessly over IPv4 and IPv6.

Q. 4 What is RAW socket? Explain. Also explain the ICMP protocol header.

Q. 5 a) Discuss concisely the advantages and disadvantages of various socket modes.
     b) Define socket input/output models in detail.

ASSIGNMENT No. 2

Note: All questions carry equal marks.

Q. 1 What is service? What mechanisms are adopted to register a service? Explain with examples.

Q. 2 Write down the difference between QOS enabled network and QOS not enabled network.

Q. 3 What is the difference between high throughput server and high connections server? Explain with the help of examples.

Q. 4 (a) How quality of service is carried out Winsock prospective?
     (b) What is the procedure for creating a RAW socket? Elaborate.

Q. 5 Explain the following functions and their uses:-
   a) Loctlosocket      b) WS Alocr      c) WSANS Ploctl
3487 Network Programming  Credit Hours: 3 (2+1)

Recommended Book:

Course Outlines:
Unit No. 1 Winsock & its Design
♦ Initializing and Creating Winsock
♦ Connectionless, Connection Oriented Winsock and APIs
♦ Protocol Characteristics, WinSock Catalog

Unit No. 2 Internet Protocol
♦ IPv4 & IPv6
♦ Addressing and Name Resolution
♦ Writing IP Version _ Independent Programs

Unit No. 3 WinSock I/O Methods
♦ Socket Modes, Socket I/O Models
♦ I/O Model Consideration

Unit No. 4 Scalable WinSock Applications
♦ APIs and Scalabilities
♦ Scalable Server Architecture
♦ Server Strategies

Unit No. 5 Socket Options and Ioctls
♦ Socket Options
♦ Ioctlesocket, WSAIostl and WSANSPInstl

Unit No. 6 Registration and Name Resolution
♦ Name Space Model
♦ Registering a Service
♦ Querying a Service

Unit No.7 Winsock Programming
♦ TCP and UDP Client Server
♦ TCP and UDP Day Time Servicing
♦ TCP and UDP echo

Unit No.8 Generic Quality of Service
♦ QOS and WinSock
♦ Terminating QOS
♦ Programming QOS

Unit No. 9 RAW Sockets
♦ RAW Sockets Creation
♦ ICMP
♦ Using IP Header Include Option