Unit-IV

8. (a) Explain the various components of a URL with an example stating the various methods to extract each component.

   (b) A server will normally accept multiple incoming connections from client. This means that it will have to accept( ) and recv( ) multiple data at the same time. 8,8

9. (a) Briefly explain how the several monitor several sockets at the same time.

   (b) Explain in detail the General format of an HTTP request security. 8,8

Roll No. : .....

Total No. of Questions : 9] [Total No. of Pages : 4

67107-N

MCA 3rd Semester (Regular) Examination, February-2022

(MCA 2 Years Programme)

(w.e.f. 2020-21)

Paper-21MCA23DB1

NETWORK PROGRAMMING ELECTIVE II (i)

Time : Three Hours] *[Maximum Marks : 80*

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note :- Attempt *five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

1. (a) Why network need security ?

   (b) What is a firewall ?

   (c) Define Protocol

   (d) What is Data Encryption ?

(e) What are the difference among encoding, encryption and hashing ?

(f) Discuss select and poll functions.

(g) What are socket options ?

(h) Name the three means of user authentication. 2×8=16

Unit-I

2. (a) What is I/O multiplexing ? Explain different types of Synchronous and Asynchronous I/O models.

(b) Write briefly about lack of flow control with UDP. List the difference between TCP and UDP. 8,8

3. (a) Write an explanation on the following functions calls by specifying the syntax, operation and necessary :

(i) Listen

(ii) Recvfrom

(iii) Bind

(iv) Socket

(b) Describe the OSI reference model and UNIX standards. 8,8

Unit-II

4. Explain with a suitable diagram the socket system calls used for connection oriented and connectionless communication between a client and a server. 16

5. (a) How do I open a socket ?

(b) What is a DLL and what are their usages and advantages ? 8,8

Unit-III

6. (a) Explain the difference between symmetric and asymmetric encryption.

(b) Describe the Transport Layer of WAP.

(c) Why do we need WAP ? 6,6,4

7. (a) What are the different layers of WAP architecture ?

(b) Define in brief, "Wireless Application Environment (WAE). 8,8