**Practical Assignment – I**

**Subject : Network Programming Code: 18CS72 Date : 14/11/2022**

**Submission date : 21/11/2022**  **Marks :10**

Q1. Implement Echo Client Server using UDP and demonstrate their working by executing the client server programs with sample input string messages. [L3, PO3, CO3] **3 marks**

Q2. Implement htons, htonl and pton functions to convert data as required in Socket programming.

Test your programs by giving appropriate inputs and attach the printout. [L3, PO1, CO1] **3 marks**

Q3. Implement Concurrent Echo Server and test it with echo client… [ Hint : Use fork and exec on the server side…] [L3, PO3, CO2] **3 marks**

Q4. Google search RFC(Request For Comments) on FTP Server…. And write the salient points about how to implement the server as described in the RFC. [L1, PO1, CO1] **1 mark**

**Q2. Apply t-test on the above data by taking first 20 data points and check whether the mean of the tests are 22 and 25 for TEST-I and TEST-II respectively with alpha =0.05**

**Q3. Apply F-test and Check if the variances of the above two tests are same with alpha =0.02**

**Q4. Following is the IA performance in 3 tests, Carry out ANOVA test to check whether the average performance in all three test is same or not.**

|  |  |  |
| --- | --- | --- |
| IA 1 | IA 2 | IA 3 |
| 19.0 | 29.0 | 24 |
| 24.0 | 26.0 | 25 |
| 22.0 | 29.0 | 25.5 |
| 19.0 | 23.0 | 21 |
| 22.0 | 23.0 | 22.5 |
| 17.0 | 22.0 | 19.5 |
| 24.0 | 28.0 | 27 |
| 21.0 | 25.0 | 23 |
| 19.0 | 24.0 | 21.5 |
| 26.0 | 30.0 | 28 |
| 19.0 | 27.0 | 23 |
| 26.0 | 29.0 | 27.5 |
| 27.0 | 30.0 | 28.5 |
| 21.0 | 30.0 | 25.5 |
| 15.0 | 19 | 17.5 |
| 28.0 | 26.0 | 27 |
| 21.0 | 29.0 | 25 |
| 26.0 | 28.0 | 27 |
| 26.0 | 27.0 | 26.5 |
| 20.0 | 22.0 | 21 |
| 27.0 | 30.0 | 28.5 |
| 27.0 | 28.0 | 27.5 |
| 25.0 | 18.0 | 21.5 |
| 27.0 | 30.0 | 28.5 |
| 13.0 | 29.0 | 21 |
| 25.0 | 30.0 | 27.5 |
| 27.0 | 23.0 | 25 |
| 29.0 | 28.0 | 28.5 |
| 26.0 | 27.0 | 26.5 |

**Q5. Formulate your own problem from any application domain and apply Chi-square test using EXCEL sheet and write your inference based on the test result in EXCEL sheet.**