

# Faculty of Engineering and Technology

# Semester End Examination Paper – B. Tech.

**Department: Computer Science and Engineering**

**Course: B. Tech. in Computer Science and Engineering**

**Semester / Batch: 5 / 2015**

**Examination: 28th November 2017**

**Course Code: CSC307A**

**Course Title: Computer Networks Laboratory**

**Mock Laboratory Examination**

**INSTRUCTIONS TO STUDENTS:**

1. Answer all the questions
2. Use only SI units
3. Use of non programmable scientific calculator is permitted
4. Use of data handbook permitted wherever applicable
5. Missing data may be appropriately assumed

**Time: 3 Hours Maximum Marks: 50**

**IMPORTANT:**

You may take this question paper away at the end of the examination. Please keep it in a safe place for future reference

**Marking Scheme**

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| --- | --- | --- | --- | --- |
| (A) Pre-Checking of Knowledge and Understanding (**5 marks)** | Results and Documentation (**30 marks)** | | (D) Viva Voce (**15 marks)** | Total (A+B+C+D)  **(50 marks)** |
|  | (B) Results (**20 marks)** | (C) Documentation (**10 marks)** |  |  |
|  |  |

1. Pre-checking of knowledge and understanding of experiment being allotted for examination. **(5 Marks)**

Explain the principle of Distance Vector routing. How is this method different from Link State routing? **(3 + 2 = 5 Marks)**

1. Conduction of experiment and reporting the result. **(30 Marks)**

The interconnectivity of any network can be represented using an adjacency matrix. Develop a C program that accepts the adjacency matrix of a network and determines paths from node to node in the network. The user will enter the nodes between which the path has to be determined. Use distance vector principles to build the routing tables. When the path is displayed, it should include (i) source (ii) destination (iii) next hop and (iv) hop count from source to destination.

You are required to document the following:

* 1. An algorithm or flowchart to solve the given problem
  2. C program using the algorithm (or flowchart) developed
  3. The results of testing the program (supported with adequate screenshots)
  4. Analysis and discussion about the results (including limitations of the program, if any)
  5. Conclusion

1. Conduction of viva-voce to check knowledge, understanding, analysis and applications. **(15 Marks)**