

Assignment on Demonstrating Networking Protocols and Standards

Assignment Title:

Detailed Implementation and Explanation of Hamming Code to Detect and Correct Errors according to Data Link Layer Error Correction Standards.

Necessary Data sections and points for your assignment:

To show your work, you must follow the following table and demonstrate the steps accordingly.

SL	Topics Writing Sequence	Marks Distribution (Rubrics)
1	Introduction on OSI (Open System Interconnection Model) model and shortly describe its seven layered architectures.	2
2	Brief discussion on “ Data Link Layer ” and state different types of functionalities of Data Link Layer	2
3	Brief discussion on different protocols of Data Link Layer	3
4	Illustration and explanation of errors in data link layer with its types	3
5	Pick a random at least 10-bit data frame, perform Hamming Code on sender side and show data and redundancy	5
6	Show fixing a single bit of error on the receiver side in your previous example and explain the correction procedure according to Hamming Code standard .	5

General rules of Assignment Writing and Submission:

- I. Assignment must be hand-written, not computer composed.
- II. No two students' work example and explanation should be the same, if found same or copy-pasted, the assignment will be treated as rejected.
- III. The figures can be drawn using a pencil or ballpoint pen.
- IV. The cover page can be computer composed, and color printed.
- V. You must show all your work with your understanding in detail. You will be evaluated according to rubrics.
- VI. No late submission will be accepted.

Assigned by

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