King Fahd University of Petroleum and Minerals College of Computer Sciences and Engineering Department of Computer Engineering

COE 451 – Computer and Network Security (T151)

Programming Assignment (due date & time: Sunday 01/11/2015 during class period)

Description:

Using any programming language, implement both an <u>ECB</u> mode and a <u>CBC</u> mode of the **Tiny Encryption Algorithm (TEA)** with <u>32 rounds</u> for encrypting each block. Use the following 128-bit key (represented in HEX): **A56BABCD0000000FFFFFFFFB3D7F31**. **Leave the first 10 blocks unencrypted**. Test your implementation of both the ECB and the CBC modes by using the <u>following linked image</u> to show a diagram analogous to that in Figure 3.3.

Deliverables:

- 1. Submit a hard copy of your diagrams.
- 2. Submit a **well-documented** soft copy of your implementation to <u>marwan@kfupm.edu.sa</u> and <u>g201307310@kfupm.edu.sa</u> along with a **readme file** on how to execute your implementation.

As usual, the implementation should be based on your own genuine effort ©