Course Title: Info Security in Systems Admin Student Name: Safal Lamichhane SEMOID#

S02023305

Student Email: slamichhane2s@semo.edu Date: Sept 16 2021

You have a \$10 'Federal Reserve Note'. You spend it in a supermarket to buy \$10 goods. Follow textbook Example 4.1 to describe the shopping process and justify your consumption should be granted.

The principals/subjects are: \$10 note, the holder, the Federal Reserve. The object is: \$10 goods.

Answer: -

Here, the subject i.e., the holder requests to buy the object i.e., \$10 goods from \$10 note.

The following analyses justifies the holders request to spend \$10 in the supermarket to buy \$10 goods.

1. The holder says
buy, \$10 goods> Holder Request

2. The federal reserve controls<the holder controls

buy, \$10 goods> Access Policy

3. \$10 note The federal reserve control

4. \$10 note says <the holder controls (buy, \$10 goods)> from 2 and 3

5. (buy, \$10 goods) From 1, 2, 3, 4

Here, Line 1 represent the holders request to buy \$10 goods from \$10 note.

Line 2 represents the access policy that the federal reverse is the authority of \$10 note.

Line 3 represents that the shopkeeper believes that the federal reverse has authorized the value of \$10 note.

Line 4 is obtained by repeated application of simplify says.

Line 5 is obtained by 1, 2,3,4 rule.

Hence, the consumption of \$10 goods should be granted by the shopkeeper