

Name _____ Student No. _____

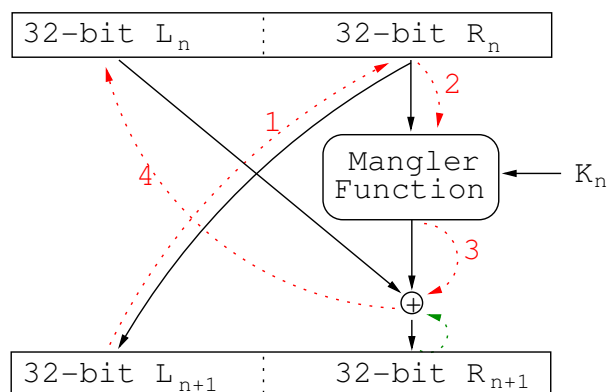
No aids allowed. Answer all questions on test paper. Use backs of sheets if necessary.

Total Marks: **30**

[10] 1. Define each of the following four terms:

- (a) Confidentiality
- (b) Integrity
- (c) Availability
- (d) Authentication

[10] 2. Explain how to invert a single round of DES using the diagram below.



- [10] 3. Explain how WEP is based on RC4; in particular, discuss the following:
- (a) the difference between IV and the key; how long are they?
 - (b) the difference between the key and the key-stream.
 - (c) how is the XOR function used.
 - (d) how is decryption accomplished.