



UNIVERSITY OF GHANA

B.SC COMPUTER SCIENCE

FIRST SEMESTER EXAMINATIONS: 2016/2017

CSCD 431: DATA NETWORK SECURITY II

SECTION A:

INSTRUCTIONS

*ANSWER ANY **THREE** OF THE QUESTIONS FOR 15 MARKS EACH*

TIME ALLOWED:

TWO AND A HALF (2½) HOURS

[60 MARKS TOTAL]

1A. In the Network Security Model, the TCP/IP has Four Abstraction Layers. Explain the threat, vulnerabilities and the probable attacks that can be initiated on each layer when it is not configured properly. [8 Marks]

1B. Define ethical hacking and the rationale behind it. [7 Marks]

2A. Explain the difference between WEP and WPA/2. With examples give reasons why you would select one against the other. [10 Marks]

2B. Explain the following kali Linux penetration testing software (Aircrack-ng) suite commands used in WEP and WPA Security. [5 Marks]

3A. Define Network Security Management and briefly explain its importance to the following and where probable use examples to justify the answer. [8 Marks]

- Business Continuity Planning

- Business Process Reengineering
- Information Assurance

3A. With the aid of a diagram explain the three security objectives and threat issues? [7Marks]

4A. Briefly explain the three main techniques hackers or crackers can use to cause damage on networks? [7 Marks]

4B. With the aid of a diagram, briefly explain the four main security threats that a hacker can remotely cause on a network. [8 Marks]

5A. With examples explain the five Information/Data Security Governance? [7 Marks]

5B. As a Systems Administrator, list and briefly explain the security “Best Practices” that is required to ensure Data Security in Network Environment? [10Marks]