



FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY
DEPARTMENT OF INFORMATION AND MEDIA TECHNOLOGY

FIRST SEMESTER 2015/2016 EXAMINATION

COURSE CODE: CIT 315
COURSE TITLE: INTERNET SECURITY
CREDIT UNITS: 3
TIME ALLOWED: 2 HOURS
COURSE LECTURER(S): MR. S.O. GANIYU
NUMBER OF QUESTIONS: 4
NUMBER OF PAGES: 2

INSTRUCTIONS

- Answer all questions
- Do **not** use red pen
- Please use a clear handwriting
- This exam is closed book, closed notes, closed laptop and closed cell phone
- Please use non-programmable calculators only

**Question 1**

(a) Describe the following security concepts. **(10 marks)**

- (i) threat agent (ii) exposure (iii) vulnerability (iv) countermeasure
(v) subject/object

(b) Explain the five (5) components of security. **(5 marks)**

Question 2

(a) **What** is Security Plan (RFC 2196) and **why** is it important to organizations? **(4 marks)**

(b) Briefly discuss the following: **(6 marks)**

- (i) Information leakage (ii) Authentication failure (iii) Blended threat

(c) Mention five (5) approaches that can be employed to minimize virus attack. **(5 marks)**

Question 3

(a) (i) Explain information security policy. **(3 marks)**

(ii) Some errors are caused by protocol failure when exploited by attackers. Describe the three (3) approaches that attackers utilize to accomplish such failure. **(6 marks)**

(b) Explain the under listed keywords as they relate to basic structure of a typical virus. **(6 marks)**

- (i) search (ii) anti-detection (iii) payload

Question 4

(a) Describe the three (3) criteria for evaluating the effectiveness of biometric access control devices. **(3 marks)**

(b) Explain media access control layer firewall. **(3 marks)**

(c) Describe the following cryptographic terms: **(3 marks)**

- (i) Work factor (ii) Keyspace (iii) cryptovvariable

(d) Discuss the following security tools: **(6 marks)**

- (i) Firewalk (ii) XProbe

Best of Luck.