



**FACULTY OF MANAGEMENT
JANUARY 2015 SPECIAL EXAMINATION**

DEPARTMENT OF APPLIED INFORMATION SYSTEMS

MODULE : **NETWORKS 4**

CODE : **BNW41-3**

DATE : **JANUARY 2015**

DURATION : **2 HOURS**

TIME :

TOTAL MARKS : **100**

EXAMINER : **TINO MUSEBA**

EXTERNAL MODERATOR: **Dr T.ZUVA**

NUMBER OF PAGES : **3 PAGES**

INSTRUCTIONS TO CANDIDATES:

- Read the questions carefully
- Answer all questions
- Number your answers clearly
- Write neatly and legibly
- Structure your answers by using appropriate headings and sub-headings
- The general University of Johannesburg policies, procedures and rules

QUESTION ONE

- 1.1.** You have just completed a risk analysis of your entire Information System and during your presentation to the executive committee your director of IT argues that most of things you mentioned as disasters are in fact just business interruptions. Write a Memo to your IT director illustrating the differences between disaster and business Interruptions **[4]**
- 1.2.** How should your organization prepare for disaster **[5]**
- 1.3.** What is the purpose of business recovery plans? **[2]**
- 1.4.** A growing number of companies have implemented business recovery plans, but There are still many without such plans. Why? **[4]**
- 1.5.** What are the elements of business impact analysis? **[2]**
- 1.6.** What is a risk assessment and what is a corporate security policy? **[3]**

QUESTION TWO

- 2.1.** “Technology is ruled by two types of people: those who manage what they do not understand, and those who understand what they do not manage “ --- Mike Trout. “Deciding which network devices to manage and how closely to manage them is more directly a business decision than a technology decision“ Explain **[5]**
- 2.2.** What factors should be considered in the in-house/outsource network design project decision? **[5]**
- 2.3.** What are the principal critical success factors for a network project? **[5]**
- 2.4.** What is the difference between the network plan and the network design **[5]**

QUESTION THREE

- 3.1.** Why would a company need cloud computing ? **[5]**
- 3.2.** What types of services are provided by packet switched networks? **[5]**
- 3.3.** What are some of the factors that make packet switching more complex technologically than traditional phone circuits **[5]**

3.4. How does TCP differ from UDP? [5]

QUESTION FOUR

4.1. Suppose you wanted to do a transaction from a remote client to a server as fast as possible. Would you use UDP or TCP? Why? [10]

4.2. How can a business use a private virtual network and tunneling to support an off-site connection? [5]

4.3. Two banks want to establish an electronic link between themselves, over which they can transmit money transfers. Can they use virtual private network and a tunneling protocol, or is there a better technique available? Defend your answer [5]

QUESTION FIVE

5.1. What functions of the SDLC model relate directly to network design? [2]

5.2. List the three most important skills a network manager should possess [3]

5.3. Briefly explain three centralized authentication methods [6]

5.4. Differentiate between packet filtering firewalls and application gateway firewalls [4]

5.5. Discuss three techniques (threats) used in security attacks [5]