



UNIVERSITY OF JOHANNESBURG College of Business and Economics School of Accountancy Final Assessment November 2017

COURSE: M COM (COMPUTER AUDIT)

DATE: 11 NOVEMBER 2017

MARKS: 200

TIME: 08H30 TO 14H00

ASSESSOR: Mr. J van Graan

MODERATOR: Mr. H Zulch

NUMBER OF PAGES: 9

Part 1 – pages 2 to 3 Part 2 – pages 4 to 9

INSTRUCTIONS TO CANDIDATES:

- Question papers must be handed in
- This paper consists of two parts:
 - o Part 1 08H30 to 10H30 close book assessment
 - o Part 2 11H00 to 14H00 open book assessment.
- Read the questions carefully and answer only what is asked
- Number your answers clearly. You answer the questions in the examination books provided (part 1 & part 2), or on your laptop (part 2). If you use your laptop please ensure that you use a header your name and student number and a footer -page x of xx.
- Write neatly and legibly
- Structure your answers by using appropriate heading and sub-heading
- The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this assessment

PART 1 - CLOSE BOOK ASSESSMENT

(80 Marks)

QUESTION 1 (30 Marks)

A computer system consists of the following components:

- Operating system
- Database
- Application
- Local Area Network

Discuss how you would audit the security in each of the components.

(28 marks will be awarded for answer and 2 marks for the format)

QUESTION 2 (20 Marks)

You are the IT Internal auditor for ZAB (Pty) Ltd. ZAB is a small wholesaler. They employ about 150 staff members who have unrestricted internet access. ZAB buys from 100 manufactures. They have about 5000 clients and keep 1 000 stock items. All orders are made and received online. They make use of an integrated real-time accounting system. This system also includes HR and Payroll modules.

The Finance Director has asked for a concise paper summarizing what should be in an Information Security Policy, what risk areas such a policy should address and the business outcomes (benefits) that ZAB should expect to accrue if it develops and implements one.

You are required to produce the requested paper.

(19 marks will be awarded for answer and 1 mark for the format)

QUESTION 3 (30 Marks)

There are 3 main approaches for Business Continuity Plans. These are resilience, redundancy and rebuilt.

- A. Which of the above three approaches fits best with the active active configuration of systems. (2 marks)
- B. Which of the above three approaches fits best with the active passive configuration of systems. (2 marks)
- C. A bank have the following three systems. Choose a BCP approach for each and motivate why. (12 marks)
 - 1. Controlling and managing ATM's;
 - 2. Credit scoring for new loan applications;
 - 3. Reserve Bank reporting.

- D. A Hotel Group (Owning 50+ hotels worldwide) have the following three systems. Choose a BCP approach for each and motivate why. (12 marks)
 - 1. Internet reservations;
 - 2. Kitchen and Conference planning and maintenance (including stock control and meals preparation);
 - 3. Occupancy reporting and planning.

(28 marks will be awarded for the answer, and 2 mark for the format of the answer)

PART 2 - OPEN BOOK ASSESSMENT

(120 Marks)

QUESTION 4 (40 Marks)

QUESTION 4 (PART A)

(20 Marks)

You are the external auditor of XYZ. (Pty) Ltd. XYZ (Pty) Ltd have 6 Linux boxes. They run an accounting system called Prophet Financials on two of the Linux boxes. The one box host the live accounting system and a Database containing the accounting data. The second box is partitioned into Test and DRP for Prophet Financials.

During the prior year the two boxes running Prophet Financials were not connected to a LAN or the Internet. The security settings on the Linux boxes running Prophet Financials were audited and found to be good.

Two of the boxes are used as mail servers and the last two are used in the production environment.

During the current year the two Prophet Financial boxes were linked to the LAN. The mail servers are also linked to a Windows XP box, which is connected to the Internet. A firewall is installed on the Windows box. The six Linux boxes are set up in a "trusted host" environment.

There is the following weakness in the security of the operating systems:

• The passwords of the system administrators of the mail servers are set to never expire.

You are required to:

- a) Discuss the impact of the weakness on the audit of the security of the LAN and Prophet Financials Application. (12)
- b) State what alternate (compensating) controls you may rely on to compensate for the security weakness. (8)

QUESTION 4 (PART B)

(10 Marks)

Use the same information as question 4A refers to.

There is the following weakness in the security of the operating systems:

All the users of the two production boxes have administrator rights.

You are required to:

- a) Discuss the impact of the weakness on the audit of the security of the Prophet Financials Database. (6)
- b) State what alternate (compensating) controls you may rely on to compensate for the security weakness. (4)

QUESTION 4 (PART C)

(10 Marks)

Use the same information as question 4A refers to.

There is the following weakness:

 When changes are made in the test environment of the Prophet Financials environment the live database are dumped onto the test box to use in the testing process.

You are required to:

- a) Discuss the impact of the weakness on the audit of the security of the Prophet Financials Application. (6)
- b) State what alternate (compensating) controls you may rely on to compensate for the security weakness. (4)

QUESTION 5 (20 Marks)

ABC Ltd. buys from 500 suppliers, sell 25% for cash, have about 2000 debtors and keep 10 000 stock items. They make use of an integrated real-time online accounting system call PAS. The system consists of the following modules:

- Sales
- Purchasing
- HR & Payroll
- Bank & Cash
- Stock
- Fixed Assets
- General Ledger

The accounting department consists of more than 100 staff members.

You are required to:

- a) List with reasons the functions needed on the Sales and Bank & Cash modules of the PAS system for the following users (description in brackets is high level only and not a list of all actions performed by the user):
 - Front line Sales staff (Selling goods for cash & credit)
 - Credit Controllers (Staff phoning debtors in arrears)
 - Manager Credit Control (Person managing the credit controllers but also approving credit limits & credit notes)
 - Cashiers (receiving cash sales & debtors account payments)
 - Cashbook clerk (generate payments). (10)

For example an HR official would need to:

- View standing data- to be able to view a staff members file to establish what the level of the position is, how many dependents, etc.
- Update personnel information to be able to change information such as address, dependents, etc.
- Record new information- to be able to add new information such as performance appraisal score.
- Etc.
- b) Develop user profiles for the above 5 positions mentioned in a) above. (10)

For example

| Position | Function | Print | Read | Add | Update | Delete |
|-------------|--------------------|-------|------|-----|--------|--------|
| HR Official | View standing data | Υ | Υ | Ν | N | N |

QUESTION 6 (60 Marks)

You are the newly appointed BCM Manager for Pronto Manufacturing Limited. (This is a new position). Pronto manufactures components for machinery in the mining industry. The administrative office is in Rosebank in Johannesburg. One production plant is in Vereeniging and the other in Roslyn (Pretoria).

The following people, systems, facilities are at each of the locations:

Administration office:

- This office block is leased with 5 years of the lease remaining;
- Pronto is the only tenant;
- The office block has space for 200 staff and parking for 40 cars;
- In the basement of the office block there is a computer room with 40 square meter space that is 50% utilised by a Unix server that have the following applications on it:
 - E-mail;
 - ERP (Accounting, payroll, HR and Stock);
 - Production planning;
 - A Marketing and Sales application that is linked to the Pronto Internet page. About 40% of sales are generated and placed on the internet.
- The office block has its own generator with diesel for 48 hours;
- The office block is currently occupied by 180 staff (senior management, marketing, sales, HR, accounting, IT, and production planning staff.

Vereeniging plant:

- This facility is owned by Pronto;
- This is a manufacturing plant with two production lines:
 - Currently 400 workers work in the plant itself;
 - One of the lines runs a day and night shift of 10 hours each, 5 days a week;
 - The second line runs a 10-hour day shift 5 days a week only;
 - o Occasionally weekend shifts are needed to produce stock for big orders.
- Components used in the gold mines are manufactured at this plant;
- The plant has an office block on the side:
 - The office block has space for 80 people (currently occupied by 20 production support staff);
 - The office block also have a computer room with 60 square meter space that is 40% utilised by two Unix servers:
 - The first server controls the two production lines. This server can control up to 6 production lines;
 - The second is a test server. This server has not been used in the last 6 months.
- The office block has its own generator with diesel for 48 hours;

- The manufacturing plant has its own generator with diesel for 120 hours;
- The facility also have a warehouse that is 80% full and houses raw materials used in production and stock ready for shipment:
 - o The raw materials are sufficient for 2 weeks normal production;
 - The stock is for about 2 months normal sales.

Roslyn plant:

- This facility is on ground that is leased from a mine in terms of a 15-year lease.
 10 years of the lease remains;
- This is a manufacturing plant that operates with two production lines:
 - Currently 180 workers work in the plant itself;
 - One of the lines runs a day and night shift of 12 hours each, 5 days a week;
 - The second line runs an 8-hour day shift 5 days a week only;
 - Occasionally weekend shifts are needed to produce components for big orders;
 - Components used in the coal mines are manufactured at this plant.
- Off the 180 workers about 60 lives in a hostel on the premises. This old mine hostel and has space for 100 people
- The plant has an office block on the side:
 - The office block has space for 50 people (currently occupied by 15 production support staff);
 - The office block also have a computer room with 50 square meter space that is 20% utilised by a Unix server that controls the two production lines. This server can control up to 6 production lines.
- The office block and hostel shares a generator with diesel for 48 hours;
- The manufacturing plant has its own generator with diesel for 120 hours;
- Also on the premises is another office block that can house 50 staff and another hostel that can house 100 people:
 - These two buildings were in working order when the mine leased it to Ponto 5 years back;
 - Part of the lease agreement is that Pronto must annually ensure that the utilities (water and electricity) for these buildings are in working order.
- The facility also have a warehouse that is 40% full and houses raw materials used in production and stock ready for shipment:
 - The raw materials are sufficient for 6 weeks normal production;
 - The stock is for about 4 month normal sales.

Part A (45 Marks)

The MD asked you to do a scenario planning exercise. **You are required** to outline recovery strategies using existing premises and systems assuming the following scenarios provided by the MD:

- The office block is flooded and needs to be vacated for 30 days.
- All the buildings on the Vereeniging facility is damaged in a fire and it will take 18 months to rebuild.
- The Roslyn foundations of the manufacturing plant are damaged due to an earth tremor that created a sinkhole. It will take 3 months to convert a part of the warehouse to a plant.

Note: Assume that only one of the three scenarios happen at a given time.

Part B (15 Marks)

Provide the MD with suggestions on how you can improve your plans above provided you allowed to spend a reasonable amount of Capex and Opex.

(58 marks will be awarded for answer and 2 marks for the format)