UNIVERSITY
OF
JOHANNESBURG

FACULTY OF MANAGEMENT

DEPARTMENT OF APPLIED INFORMATION SYSTEMS

MODULE	:	**Information Technology Management 3A**
CODE	:	**ITB3A01**
DATE	:	**6 June 2014 - Main Examination**
DURATION	:	**3 HOURS**
TIME	:	**08H30**
TOTAL MARKS	:	**100**

EXAMINER	:	**J. Dhlamini**
MODERATOR	:	**Mr N. Mavetera**
NUMBER OF PAGES	:	**6**

INSTRUCTIONS TO CANDIDATES:

- Answer ALL questions
- This is a closed book assessment
- No calculators allowed
- Number your answers clearly
- Write neatly and legibly
- The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this assessment.

Question 1

Listed below are some characteristics of a top business analyst. Explain any two.

(10 marks)

a) They deeply understand the business problem being solved.

b) They are excellent translators and negotiators.

c) They must be able to view the project from the highest to the lowest levels.

d) They understand technology and its limits.

e) They have credibility with the business.

f) They enjoy interacting with people and are excellent communicators.

Question 2

What is Gap Analysis and on what can it be conducted? **(10 marks)**

Question 3

What is an activity diagram and why is it significant? **(10 marks)**

Question 4

What are JAD (Joint Application Development) sessions? **(10 marks)**

Question 5

Instructions: Read the case below and answer the questions that follow.

Mike Nkosana is the Managing Director of Mula Finance Ltd, a company offering a range of financial services, including home, life and car insurance products, personal and business loans and mortgages. The company also acts for a variety of local businesses in the preparation of accounts and managing the raising of finance for capital investment and it has recently become involved in helping to provide venture capital. The company has thirty offices in different geographic locations within the United Kingdom; the head office is in Leeds. Within each office the insurance business is organised as a separate unit. In recent years the insurance side of the business has lost market share to rivals due to its slowness in introducing information technology to deliver its products to customers. This has not affected the loans and mortgages side of the business as much because

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these customers are more interested in high quality customer care and on-going customer service.

The services that Mula Finance offers are very competitively priced and the staff are all well motivated and very highly qualified. The company prides itself on the quality of its service and the loyalty that its customers seem to have. Most of their customers come back regularly and recommend friends. All of the offices do their own promotion, following the guidelines set out at head office. It is a combination of local advertising in leaflets and newspapers and public relations' events.

Mike is of the opinion that the company should develop a coherent e-business strategy. At the beginning of May, the board of directors committed to a new operating system and the redesign of the organisation's website and intranet. The updated website will improve the organisation's marketing as it will allow customers to review all products on offer, to obtain quotes, to compare quotes with rival companies, to send email queries and to instantly sign up for insurance products and make payments electronically. A basic website is already in existence showing all current products on offer and the ability to get online quotes.

In your role as an independent business analyst produce a report for Mike Nkosana that:

a) Discusses the benefits of using e-business in a modern competitive environment, and identifies some of the potential concerns that the firm may encounter **(10 marks)**

b) Recommends a suitable hardware and software infrastructure that would be necessary to develop and support the proposed e-business strategy **(10 marks)**

c) Discusses how the firm would need to re-evaluate its traditional marketing approach to successfully e-market its service to its target customer base **(10 marks)**

Question 6

Instructions: Read the case below and answer the questions that follow.

Superpipe is a successful company supplying flexible pipes to a wide range of industries. Its success is based on a very innovative production process which allows the company to produce relatively small batches of flexible pipes at very competitive prices. This has given

Superpipe a significant competitive edge over most of its competitors whose batch set-up costs are higher and whose lead times are longer. Superpipe's innovative process is partly automated and partly reliant on experienced managers and supervisors on the factory floor. These managers efficiently schedule jobs from different customers to achieve economies of scale and throughput times that profitably deliver high quality products and service to Superpipe's customers.

A year ago, the Chief Executive Officer (CEO) at Superpipe decided that he wanted to extend the automated part of the production process by purchasing a software package that promised even further benefits, including the automation of some of the decision-making tasks currently undertaken by the factory managers and supervisors. He had seen this package at a software exhibition and was so impressed that he placed an order immediately. He stated that the package was 'ahead of its time, and I have seen nothing else like it on the market'.

This was the first time that the company had bought a software package for something that was not to be used in a standard application, such as payroll or accounts. Most other software applications in the company, such as the automated part of the current production process, have been developed in-house by a small programming team. The CEO felt that there was, on this occasion, insufficient time and money to develop a bespoke in-house solution. He accepted that there was no formal process for software package procurement 'but perhaps we can put one in place as this project progresses'.

This relaxed approach to procurement is not unusual at Superpipe, where many of the purchasing decisions are taken unilaterally by senior managers. There is a small procurement section with two full-time administrators, but they only become involved once purchasing decisions have been made. It is felt that they are not technically proficient enough to get involved earlier in the purchasing lifecycle and, in any case, they are already very busy with purchase order administration and accounts payable. This approach to procurement has caused problems in the past. For example, the company had problems when a key supplier of raw materials unexpectedly went out of business. This caused short-term production problems, although the CEO has now found an acceptable alternative supplier.

The automation project

On returning to the company from the exhibition, the CEO commissioned a business analyst to investigate the current production process system so that the transition from the current system to the new software package solution could be properly planned. The business analyst found that some of the decisions made in the current production process were difficult to define and it was often hard for managers to explain how they had taken effective action. They tended to use their experience, memory and judgement and were still innovating in their control of the process. One commented that 'what we do today, we might not do tomorrow; requirements are constantly evolving'.

When the software package was delivered there were immediate difficulties in technically migrating some of the data from the current automated part of the production process software to the software package solution. However, after some difficulties, it was possible to hold trials with experienced users. The CEO was confident that these users did not need training and would be 'able to learn the software as they went along'. However, in reality, they found the software very difficult to use and they reported that certain key functions were missing. One of the supervisors commented that 'the monitoring process variance facility is missing completely. Yet we had this in the old automated system'. Despite these reservations, the software package solution was implemented, but results were disappointing. Overall, it was impossible to replicate the success of the old production process and early results showed that costs had increased and lead times had become longer.

After struggling with the system for a few months, support from the software supplier began to become erratic. Eventually, the supplier notified Superpipe that it had gone into administration and that it was withdrawing support for its product. Fortunately, Superpipe were able to revert to the original production process software, but the ill-fated package selection exercise had cost it over R30m in costs and lost profits. The CEO commissioned a post-project review which showed that the supplier, prior to the purchase of the software package, had been very highly geared and had very poor liquidity. Also, contrary to the statement of the CEO, the post-project review team reported that there were at least three other packages currently available in the market that could have potentially fulfilled the requirements of the company. The CEO now accepts that using a software package to automate the production process was an inappropriate approach and that a bespoke in-house solution should have been commissioned.

a) Critically evaluate the decision made by the CEO to use a software package approach to automating the production process at Superpipe, and explain why this approach was unlikely to succeed. **(15 marks)**

b) The CEO recommends that the company now adopts a formal process for procuring, evaluating and implementing software packages which they can use in the future when a software package approach appears to be more appropriate.

Analyse how a formal process for software package procurement, evaluation and implementation would have addressed the problems experienced at Superpipe in the production process project. **(15 marks)**

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