



Information Systems Analysis

28 May 2019

Examination Paper

Answer ALL questions.

Clearly cross out surplus answers.

Time: 3 hours

The maximum mark for this paper is 100.

Any reference material brought into the examination room must be handed to the invigilator before the start of the examination.

Answer ALL questions

Marks

Question 1

Urban Delivery Services has provided courier services for almost twelve years and has a large number of business and home customers that it delivers items to and collects items from. It is a successful company and its staff work hard and communicate with each other effectively.

The owner of Urban Delivery Services wants to expand the company's operations by taking on new customers and employing more couriers. A new information system needs to be implemented in order to keep up with the demand for business at Urban Delivery Services. New personal digital assistants (PDAs) will be given to all couriers to record and communicate their exact locations, the status and delivery of their deliveries and collections and allowing them to access details of new and cancelled deliveries and collections.

The owner is prepared to meet all financial costs that are needed for the analysis of the information system in order for the implementation of a robust, efficient, user friendly and secure information system.

- a) Explain what is meant by a *hard approach* to information systems analysis. 4
Your answer should be supported by FOUR (4) points.

- b) Identify THREE (3) types of methodologies that could be used if a hard approach to information systems analysis is undertaken at Urban Delivery Services. 3

- c) Discuss THREE (3) items of information that should be documented in a *technical feasibility report* for Urban Delivery Services. 3

Total 10 Marks

Question 2

- | | |
|---|----------|
| a) Explain how analysis of the information system at Urban Delivery Services could be undertaken more effectively if a soft systems approach to information system analysis is used. Your answer should be supported by FIVE (5) points. | 5 |
| b) Describe FIVE (5) problems that could arise if a decision is taken to use a soft systems approach to analysis. | 5 |

Total 10 Marks

Question 3

- | | |
|---|----------|
| a) Information about Urban Delivery Services could be discovered if CATWOE analysis is performed successfully. Identify SIX (6) items of information that could be discovered. | 6 |
| b) Describe FOUR (4) advantages of using CATWOE as an analysis technique. | 4 |

Total 10 Marks

Question 4

- | | |
|--|----------|
| a) Explain how the construction of a stakeholder matrix could help analysis at Urban Delivery Services. You should support your answer with SIX (6) points. | 6 |
| b) Outline FOUR (4) negative aspects associated with undertaking stakeholder analysis. | 4 |

Total 10 Marks

Question 5

- a) Object oriented analysis (OOA) can be used as an alternative to a hard or soft approach to analysis. Discuss SIX (6) key features of OOA. **6**
- b) Describe FOUR (4) disadvantages of using OOA as a tool for analysis at Urban Delivery Services. **4**

Total 10 Marks**Question 6**

- a) ETHICS analysis can be used to assess job satisfaction at Urban Delivery Services. Identify **and** describe THREE (3) measures of job satisfaction that can be used at the company. **6**
- b) Suggest FOUR (4) advantages for Urban Delivery Services if the owner accepts the recommendations of ETHICS analysis. **4**

Total 10 Marks**Question 7**

- a) Outline FIVE (5) strengths of Urban Delivery Services. Use the information provided in Question 1. **5**
- b) In addition to identifying strengths at Urban Delivery Services, describe FIVE (5) other reasons to undertake SWOT analysis at the company. **5**

Total 10 Marks

Question 8

- a) If you perform PEST analysis at Urban Delivery Services it will reveal various influences that could affect the development of the information system. Suggest FOUR (4) influences that will be revealed. **4**
- b) State one of the influences that you identified in Question 8 a) and outline THREE (3) ways that the influence could impact negatively on the development of the information system at Urban Delivery Services. **3**
- c) Recommend THREE (3) solutions to manage the negative influences that you have outlined in Question 8 b) **3**

Total 10 Marks**Question 9**

- a) Information gathering methods, for example, the use of interviews, can be used during analysis. Discuss FOUR (4) advantages of using interviews during information systems analysis at Urban Delivery Services. **4**
- b) Describe THREE (3) disadvantages of using interviews while undertaking analysis at the company. **3**
- c) Identify THREE (3) other information gathering methods that could be used at the company. **3**

Total 10 Marks**Question 10**

- a) Describe FIVE (5) pieces of information that could be discovered about tasks that are undertaken by staff at Urban Delivery Services if task analysis is undertaken. **5**
- b) Outline FIVE (5) features that the interface of the information system at Urban Delivery Services should provide to ensure that staff can use it without any problems. **5**

Total 10 Marks**End of Paper**