

UNIVERSITY OF BOLTON

SCHOOL OF CREATIVE TECHNOLOGIES

BSC (HONS) COMPUTER NETWORKS AND SECURITY

SEMESTER 2 EXAMINATION 23/24

OPERATIONS MANAGEMENT

MODULE NO: SEC6204

Date: Tuesday 14th May 2024

Time: 2:00 – 4:00pm

INSTRUCTIONS TO CANDIDATES:

There are 4 questions on this paper.

Section 1 is **COMPULSORY**

Section 2 requires that you answer **TWO QUESTIONS ONLY**

Section 2 - All questions carry equal marks.

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ITIL 4 is an internationally recognised library of best practice and enables practitioners to look at IT Service Management through an end-to-end operating model for the creation, delivery and continual improvement of tech-enabled products and services.

This exam will test your understanding and ability to identify and critically assess situations where the application of service management strategies will address deficiencies and improve services and products within enterprise infrastructures.

Section 1 – This question is COMPULSORY

1. Using the ITIL 4 framework, provide a critical analysis of service management strategies you think would be most effective in addressing recent developments in the management of services within enterprise infrastructures.

(40 Marks)

END OF SECTION 1

PLEASE TURN PAGE FOR SECTION 2

Section 2 – Answer any TWO questions

1. ITIL 4 General Management Practices comprehensively address operations within an IT enterprise in regard to IT service management, identify and critically assess 3 service management practices of your choice and show how applying these strategies will make improvements in relation to the attached case study.
(30 Marks)

 2. Calling on your knowledge of ITIL 4 as an internationally recognised library of best practice, identify and critically assess the seven ITIL 4 guiding principles and how their correct application can be used to address both explicit and implicit problems within the attached case study.
(30 Marks)

 3. After reviewing the attached case study and identifying any problems, provide a critical analysis of how the implementation of the Service Value Chain within the Service Value System will lead to the creation of products and services and in turn, value.
(30 Marks)
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END OF QUESTIONS

PLEASE TURN PAGE FOR CASE STUDY

CASE STUDY



A large pharmaceutical company called 'Miracle Cure' has been in the news lately celebrating their tremendous success because of a new 'wonder' drug that they have developed. As a result of the success and after long deliberations, a few weeks ago the board decided to 'float' the company on the stock market. The company has seen exponential growth and profits have been soaring, making the new shareholders very happy. The costs associated with being a public company has necessitated looking to the future, with this in mind the company have reviewed the organisational structure and made some changes resulting in a

cost saving of 10% - 15%.

The glaring exception has been the IT department which has seen costs rise by 30% across the company and there is a suspicion of mis management of finances, services, and personnel. The board are nervous that the R&D (Research & Development) advances and data are susceptible to a cybersecurity attack. The British Computing Society has highlighted [BSC Biggest Cyber Attacks of 2023](#) that has costs hundreds of millions and compromised data. Covid19 and its variants have necessitated the sudden increase in remote work and more lax security protections at home gave hacker groups the perfect opportunity to breach sensitive data, the amount companies paid to hackers grew by 300%.

CEO of cybersecurity firm FireEye, Kevin Mandia, shed some light on why these healthcare organizations are targeted. "Pharmaceuticals, hospitals, healthcare, public companies, organizations that don't have the talent and skills to defend themselves—they're getting sucker-punched," Mr. Mandia said. Marene Allison, J&J's chief information security officer, said that Johnson & Johnson experiences 15.5 billion cybersecurity incidents on a daily basis. ([Becker's Hospital Review](#))

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The IT department is located at the central office in London, where minimal support is provided for company branches worldwide. No form of centralised system administration and monitoring has been employed and in recent years branch managers have been given autonomy when hiring staff and managing the IT solutions. There has been a significant rise in the number of IT staff throughout the organisation and each branch operates its own staff and IT management strategy.

The senior IT staff at headquarters have remained relatively unchanged over the years and it has been said that they have an 'Old School' attitude towards IT operations and management, whatever that means and don't like outside interference. Unfortunately, that interference includes other departments within the company and consequently there has been very little interaction between the IT department and other divisions or departments.

There has been no consideration for redundancy or fault tolerance, all IT solutions have been developed 'in house' and in some cases using legacy software which has led to compatibility issues. The headquarter IT management team have been happy to let branches be self-sufficient and hire IT staff as required. Unfortunately, this has led to significant unrest as there is a distinct lack of communication, structure, and direction from headquarters and moral appears to be low amongst colleagues.

Staff have mentioned that there is a clear lack of transparency which is something that will need to be considered with the addition of regulatory requirements. Since the stock market flotation, the word 'Governance' has constantly been hurled about but there seems to be little understanding of exactly what the term means or its implications. There is also a consideration now that investors and shareholders will want to be kept informed of company developments.

The board are aware of the costs associated with housing IT infrastructure in each of the branches and would like to make a saving there if possible.

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In the past company senior management have enthusiastically provided whatever was asked for to support the IT department either at headquarters or in the branches without requiring accountability, a company belonging to the friend of a one of the directors supplies all equipment to the branch offices, there has been no accounting of money spent, or resources bought. Considering recent revelations, they feel there needs to be some systemic changes within the IT department, looking at infrastructure and management development and communication processes, as the current costs are unsustainable. The company are looking to implement good practice across all departments and divisions. With the company now publicly owned security considerations must be considered.

With the accountability and responsibilities that accompany being a publicly owned organisation the board have decided to create a post for a CIO to overhaul the current IT operations and management and to consider future developments. An awareness has arisen that there needs to be a Service Management Solution devised to cater for existing IT operations and the changes that must be implemented. You have been selected as a potential candidate for the position of CIO and as part of the interview process the board have asked applicants to prepare a report on what changes need to be made and why?

You are expected to review the company operating procedures and particularly the situation with the IT department.

END OF PAPER