



FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

DEPARTMENT OF QUALITY AND OPERATIONS MANAGEMENT

FIRST SEMESTER MAIN EXAMINATION 2019

<u>PROGRAMME</u>	BTECH: OPERATIONS MANAGEMENT BTECH: MANAGEMENT SERVICES BTECH: QUALITY
<u>MODULE</u>	QUALITY PLANNING AND IMPLEMENTATION IV
<u>CODE</u>	QPI44-1
<u>DATE</u>	23 MAY 2019
<u>DURATION</u>	3 HOURS
<u>TIME</u>	08:30 – 11:30
<u>TOTAL MARKS</u>	100

<u>EXAMINER</u>	MR. N. MADONSELA
<u>INTERNAL MODERATOR</u>	DR. N. SUKDEO
<u>EXTERNAL MODERATOR</u>	PROFESSOR. K. RAMDASS
<u>NUMBER OF PAGES</u>	4 PAGES (including the cover page)

INSTRUCTIONS TO CANDIDATES:

- Please answer all questions.
- Calculators are allowed
- Question papers must be handed in.
- This is a closed book assessment.
- Read the questions carefully and answer only what is asked.
- 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 pertaining to written exam apply.

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SECTION A

Case study: Netcare Hospitals (Pty) Limited

Netcare Hospitals, Ltd. (NH) whose mission is to join with communities in strengthening families and improving the quality of life for children, offers a wide variety of programs in Gauteng region. With an agency budget in excess of R11 million rands, the spectrum of services includes Head Start programs for children ages 0–5, parenting education, family literacy, GED test preparation, substance abuse prevention, partial hospitalization, mental health prevention and counselling services in schools, foster care, independent living, case management, outpatient individual, family, and group therapy, diagnostic testing, psychiatric services, and professional training.

HN's 240 employees have a broad range of professional education including high school, associates, bachelor's, master's, Ph.D., R.N., and M.D. degrees. All staff share the authority, dedication, and commitment to promote the mission of serving children and families. Facilities include intranet, Internet, a Web site (<http://www.child-focus.org>), specifically designed management information systems with necessary office equipment, 22 vehicles to provide client transportation, and two commercial kitchens that serve more than 800 meals a day. Facilities and programs are supervised by a volunteer Board of Trustees and by the accreditation standards of the National Association for the Education of the Young Child, Day Care Licensing Regulations, Head Start Performance Standards, and Gauteng Departments of Education, Mental Health, Alcohol and Drug Addiction Services, and Job and Family Services. As NH continues to expand its programs through new and larger contracts, the biggest challenge is to provide quality services. Personnel and human resources issues are another challenge. They continually strive to find qualified staff who are willing to work with some of the most challenging children and dysfunctional families. Although their turnover rate is approximately 15 percent, most of it is in less-skilled positions. Consequently, this loss of staff increases training costs. Training existing staff to meet higher educational standards and continuing to find office and service space to meet growing needs is also a challenge. NH's diversity of programming, reporting, and funding to multiple agencies and organizations requires continuous management at all levels within the agency. The governing Board of Trustees for NH is a diverse group of volunteers that have experience as attorneys, teachers, homemakers, and NH consumers.

State and county legislative and regulatory changes can affect programming or present financial challenges. These entities, in turn, may have competing philosophies, which complicate administration or delay program implementation. NH management has several procedures in place to identify and manage these organizational challenges. Customer, staff, and collaborators' recommendations and complaints are identified through evaluation and administrative programs in both the Early Childhood and Behavioural Health divisions and are continuously monitored by staff, management, and the Board of Trustees. Through a continuous strategic planning process, NH identifies ways in which to improve and expand its services through program modification or development.

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QUESTION 1

1.1	<i>"All staff share the authority, dedication, and commitment to promote the mission of serving children and families."</i> How would you define empowerment to NH's Chief of Staff? How does empowerment benefit both the organization and employees?	(16)
1.2	What advice would you provide?	(8)
1.3	Briefly explain how the CEO can apply the key workforce-focused practices for quality	(16)
1.4	What questions should be asked during the improvement plan development phase regarding process mapping?	(10)

[50 MARKS]

SECTION B (THEORY)

QUESTION 2

2.1	Defend the key principles of the Six Sigma philosophy.	(14)
2.2	Elaborate on the role of middle management in achieving quality and performance excellence in an organisation.	(12)
2.3	How would you classify the four major categories of quality costs? Give examples of each.	(12)
2.4	Validate the term Design for Six Sigma (DFSS)?	(4)
2.5	Based on what you have learned, how would you develop a process map?	(8)

[50 MARKS]

[TOTAL MARKS 100]