FACULTY OF ENGINEERING AND BUILT ENVIRONMENT
DEPARTMENT OF QUALITY AND OPERATIONS MANAGEMENT

MODULAR WRITTEN ASSESSMENT

SUBJECT:	QUALITY ASSURANCE 2A
CODE:	QAS22A01/ QAS22A2
DATE:	27 MAY 2019
TIME ALLOWED:	3 HOURS
TIME:	08:30 – 11:30pm
TOTAL MARKS:	100

ASSESSORS:	Miss M. Motebele
MODERATOR:	Mr M. Madonsela
NUMBER OF PAGES:	5

INSTRUCTIONS:

1. This is a closed-book assessment.
2. Read the questions carefully and answer only what is asked.
3. Answer all questions in the answer book. Indicate the correct answer as per the instructions.
4. Number your answers clearly.
5. Write neatly and legibly on both sides of the paper in the answer book, starting on the first page.
6. Structure your answers by using appropriate headings and subheadings.
7. The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this assessment.

QUESTION 1

Defining quality is far from easy. Just try to find why one finds that product is not of quality. Quality refers to grade of service, product, reliability, safety, consistency and consumer's perception. The notion of quality often subsumes a comparison between products. Define and discuss the difference between Quality Assurance, Quality Control. [6]

QUESTION 2

John French and Bertram Raven introduced the five forms of power. Discuss these forms of power respectively in quality management. [10]

QUESTION 3

Read the case study and answer the following questions.

As the global business environment has become more unpredictable and complex, leadership matters more today than ever before. More than contextual factors such as economic conditions, industry factors, and a firm's overall health, leadership factors now have a much more predictive impact on company performance. The quality of those in management positions accounted for at least 70% of employee engagement while exceptional leaders can contribute about 48% higher profit than average managers can. Therefore, one of the most important decisions a company can make is who to appoint to positions of authority.

Becoming this agent for change requires unconventional behaviour. It requires mastery of one's self, the uncertainty of their environment and the complexity of relationships with other people. While there is a belief some are born to lead, the fact is that the skills and beliefs required to lead others can be practiced and perfected by anyone, with the sincere desire to do so. To know if you are a leader, or whether you have the qualities to become one, managers need to honestly answer the following questions about themselves.

Explain the rationale for leadership process is fundamental to success in the global marketplace. [5]

QUESTION 4

If you were an executive manager in an organization, how would you structure the organization for quality improvement? Your answer should focus on leadership traits that management play as a role in continual improvement. [10]

QUESTION 5

Explain the following theories:

5.1 Computer aided design [2]
5.2 Geometric modelling [2]
5.3 Engineering analysis [2]
5.4 Design review [2]

QUESTION 6

Discuss the possible relationship between total quality management and customer relationship management. In your discussion Illustrate how you think that the concept CRM has more effectively reached consumers from traditional retailers rather than from organized retail. [10]

QUESTION 7

Identify and explain the five basic areas where FMEA can be applied. [5]

QUESTION 8

It is imperative for an organisation to clearly identify its customer's perceptions of service quality in order to be able to develop mechanisms to improve or maintain the quality of service they provide to their customers. In this scenario, the case study examined whether service quality has an impact on the reputation of a hotel in which they explored service quality – namely the Mmabatho Palms hotel, Mafikeng, South Africa. To a larger extent, identifying customer perception of service quality of the Mmabatho Palms hotel is important in order to discover its effect on the reputation of the hotel and furthermore to measure and draw a conclusion about the hotels' reputation.

Indicate how service quality issues are different from those of manufacturing. [5]

QUESTION 9

Construct a service blueprint for a restaurant of your choice. Indicate possible fail points and back-office processes. [10]

QUESTION 10

Mention the ***three T's*** of Poka Yoke. [3]
Define the concept of Moment of Truth. [3]
Explain the term voluntary services. Elaborate with practical examples [3]

QUESTION 11

Company A, Johannesburg, wishes to assess their quality performance. In order to do so they have gathered the following quality-related costs. You are hired as a consultant to evaluate these costs and to make recommendations to management.

ANNUAL QUALITY COSTS

Failure costs	R
Defective products	3,856
Engineering scrap	18,565
Non-engineering scrap	175,899
Consumer adjustments	120,563
Downgrading products	1,789,632
TOTAL	
Appraisal costs	R
Receiving inspection	20,777
Line 1 inspection	5,439
Line 2 inspection	6,480
Spot checking	1,985
TOTAL	
Prevention costs	R
Quality training	23,500
Process engineering	
Corporate	130,255
Plant	40,365
Product redesign	8,549
TOTAL	

Calculate the following:

4.1	Total failure costs	[1]
4.2	Total appraisal costs	[1]
4.3	Total prevention costs	[1]
4.4	Grand total	[1]
4.5	Ratio of appraisal to failure costs	[2]
4.6	Ratio of prevention to failure costs	[2]
4.7	Ratio of prevention and appraisal to failure costs	[2]
4.8	Proportion of total quality costs	[4]
4.9	Interpret the results of the calculations	[4]
		[22]