



**FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT**  
**SSA EXAMINATION 2014**

<b><u>DEPARTMENT</u></b>	QUALITY & OPERATIONS MANAGEMENT
<b><u>MODULE</u></b>	QUALITY ASSURANCE 2A
<b><u>CODE</u></b>	OQA2A01
<b><u>DATE</u></b>	14 July 2014
<b><u>DURATION</u></b>	2 HOURS
<b><u>TIME</u></b>	08H00
<b><u>TOTAL MARKS</u></b>	100

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<b><u>EXAMINER</u></b>	MRS N SUKDEO
<b><u>INTERNAL MODERATOR</u></b>	MRS C MUGOVA
<b><u>NUMBER OF PAGES</u></b>	2 PAGES (including cover page)

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**INSTRUCTIONS TO CANDIDATES:**

- 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 assessments apply to this assessment.

### **QUESTION ONE**

- 1.1 Explain Crosby's Absolutes of Quality Management. (5)
  - 1.2 Contrast between Malcolm Baldrige Framework, ISO 9001 and Six Sigma. (6)
  - 1.3 Discuss ISO 9001 Quality Management principles. (8)
  - 1.4 Identify and explain product quality dimensions with a product of your choice. (8)
- [27]**

### **QUESTION TWO**

- 2.1 Discuss the four principle activities of Design for Six Sigma (DFSS). (8)
  - 2.2 Determine the major steps for Concept Engineering. (5)
  - 2.3 What is Poka Yoke? (1)
  - 2.4 Identify and explain the types of service errors in Poka Yoke. (6)
  - 2.5 For followers to have power, leadership must share power. Identify and discuss the different forms of leadership (10)
- [30]**

### **QUESTION THREE**

- 3.1 Discuss the Six Sigma DMAIC methodology. (10)
  - 3.2 Determine the sources of competitive advantage. (6)
  - 3.3 Explain the elements of superior service quality. (6)
  - 3.4 What are the differences between manufacturing and services? (5)
- [27]**

### **QUESTION FOUR**

- 4.1 Define the following:
    - 4.1.1 Customer engagement (1)
    - 4.1.2 Concurrent engineering (1)
    - 4.1.3 Value analysis (1)
    - 4.1.4 Experimental design (1)
    - 4.1.5 Variety (1)
    - 4.1.6 Superordinate goals (1)
  - 4.2 Discuss the goals of strategic planning. (4)
  - 4.3 Explain the practices for dealing with customers. (6)
- [16]**

**TOTAL = 100 MARKS**