UNIVERSITY OF JOHANNESBURG

FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

Supplementary Examination 2015

PROGRAMME	BTECH: QUALITY
DEPARTMENT	QUALITY & OPERATIONS MANAGEMENT

MODULE	QUALITY AUDITING TECHNIQUES 4
CODE	QAT44-2
DATE	: SUMMER SSA EXAMINATION 2015 11 DECEMBER 2015
DURATION	: (SESSION 1) 08:00 - 11:00
TOTAL MARKS	120

EXAMINER	MRS M GOUNDEN / MRS N SUKDEO
EXTERNAL MODERATOR	MR A INDERLAL
NUMBER OF PAGES	6 PAGES (including cover page)

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.
- Attached are the clauses of ISO 9001.
- The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this assessment.

Question 1 – 15 marks

The following non-conformances were noted during an audit of XYZ Industries.

Identify the clause that is applicable to the following non-conformances:

1.1 Agenda and minutes of Management Review Meeting did not reflect the system's continuing suitability and effectiveness.

1.2 Planning activities were not documented in the Quality Systems Manual.

1.3 The authorities and responsibilities of various personnel conducting tasks involving important quality decisions were not mentioned in the Management System documentation.

1.4 A number of records were found incomplete or incorrectly completed.

1.5 The security guard at Gate 7 did not verify the contents of 3 out of 7 trucks that left the gate. This contravened the requirements of W1021.

1.6 The method used for identification of undercover agents was not documented in procedure WI007 (eg. The use of code names and numbers and how these are traced to different agents).

1.7 The insignia badges had recently been changed, but 3 of the 10 guards on shift had not yet been issued with the newer versions.

1.8 The Shift Incident Book is not filled in by the Supervisor to indicate that the matters reported had been investigated and action taken.

1.9 Approved suppliers list is available, but no evidence was found that suppliers had been evaluated.

1.10 Poor housekeeping was noted in the Despatch Area.

1.11 2 of the 3 Receptionists were not dressed in the navy blue uniforms required by procedure PRFS009, but were casually dressed.

1.12 The company organigram is not up to date.

1.13 Roof of the factory is leaking.

1.14 Tolerances have not been specified for the calibration of tape measures.

1.15 2 of the lecture rooms that were checked during the audit did not have all the specified equipment. (eg. 1 lecture room did not have flipchart paper and the other did not have an overhead projector).

Question 2 – 60 marks

Excaliber (Pty) Ltd is a manufacturer of component parts. They received visitors from a European trade Delegation, 2 months ago and as a result, have received an export enquiry for component parts to

Europe within the first quarter of the next year. A vital precondition to this contract is that Excaliber (Pty) Ltd, be certified to ISO 9001:2008. You are part of the audit team for the assessment of the quality management system.

SALES OFFICE

In the sales office, the Sales representative has the following to say about his functions within the company:

" It is my job to sell the products we manufacture. I have drawn up technical data sheets which I distribute to prospective customers...I must have handed out 10 or 15 this week alone. When customers phone in, they sometimes ask for additional information like our actual specifications. These differ slightly from the technical data sheets as we cannot do all the tests on the data sheets. Then we transfer them to the technical people to ensure that they receive the most updated information, as the Sales Office does not receive copies of the specifications. When an order is phoned through, the details are written in this duplicate sales book and the top copy goes to Production. We always ensure that the specifications, quantity and delivery date are included, although it does not always help, because the Production guys are often late and they do not let us know until after we nag them about the delivery date."

RAW MATERIALS STORE

In the Raw Materials Stores, the Receiving Clerk describes the systems for receiving raw material is as follows:

"When we get a delivery of raw materials, we first inspect it very carefully to ensure that the material is the right stuff. We can do this when the grade is specified on the purchase order, although the Buyers who send us copies of the purchase order don't always remember to include all the information. We also check the quantity and that the bags are not damaged. We are very particular about not accepting damaged goods. Some suppliers are worse than others. I don't know why we keep using them, but we have a list of approved suppliers, who have been approved for payment by the Finance Department. As long as they are on the list, we are authorised to accept the goods. The Finance Department are always changing the supplier list and we don't know about it until we get blasted for accepting goods from suppliers who have been taken off the list. Once we have accepted the materials into the Stores, it goes into a quarantine area until Receiving Inspectors have tested it and then they inform us by putting green or red chalk on to it so that we know which material to move into the assigned release areas. After that process, we are responsible for issuing to Production."

ENGINEERING DEPARTMENT

In the Engineering Department, which is responsible for the calibration of equipment, the Calibration Technician tells you the following:

"I am responsible for all aspects of calibration and when I started working here, I drew up a programme based on experiences in my previous company. However, when I try to recall each piece of equipment at planned schedules, the Production Manager refuses, as it interferes with his production output. So now I do it whenever there is a plant shutdown, or when a specific problem occurs. The Production Manager says that most of his equipment does not have an effect on product quality, but I often get corrective action requests to recalibrate or check the specific item of equipment whenever a product fails its specifications. Here are four requests that I received this month and several of these are the same as last quarter. One of my major concerns is that the Production guys change the adjustments on the equipment whenever they have a problem. I have documented procedures for calibration and I've made photocopies to give the workers (particularly

the night shift), but they are always losing the documents, and besides...they don't have much know-how in any case."

2 .1 Produce an audit report stating the non-conformity, type of non-conformance (Major, Minor or Critical), and state the clause number from the ISO 9001:2008 standard that is/are not being followed for each incident.

(40)

2.2 Using a non-conformance from above, design and complete a corrective/preventative action report form.

(10)

2.3 On completion of the audit report, it is important that both parties understand the significance of the overall impact of the audit. Discuss an agenda for a closing meeting?

(10)

Note: Complete the root cause of the non-conformance, requirements for effective resolution and proposed action plan to correct the non-conformance.

Question 3 – 45 marks

3.1	Explain **5 types** of audits.	**(10)**
3.2	Discuss the roles and responsibilities of the person managing and audit programme.	**(10)**
3.3	Discuss the principles of auditing.	**(5)**
3.4	Discuss the possible evaluation methods, objectives and examples as per Clause 7.4.	**(20)**

Summary of ISO 9001:2008 Clauses

1.1 General

1.2 Application

All requirements of this international standard are generic and are intended to be applicable to all organizations, regardless of type, size and product provided.

4. Quality MS

4.1. General requirements

4.2 Document requirements

4.2.1 General
4.2.2 Quality Manual
4.2.3 Control of documents
4.2.4 Control of records

5. Management Responsibility:

5.1 Management Commitment
5.2 Customer focus
5.3 Quality Policy

5.4 Planning

5.4.1 Quality Objectives:
5.4.2 Quality Management System Planning

5.5 Responsibility, authority and communication

5.5.1 Responsibility and Authority
5.5.2 Management representative
5.5.3 Internal communication

5.6 Management Review
5.6.1 General
5.6.2. Review Input
5.6.3 Review Output

6. Resource Management
6.1 Provision of resources

6.2 Human Resources
6.2.1 General
6.2.2 Competence, awareness and training

6.3 Infrastructure
6.4 Work Environment

7. Product Realization
7.1 Planning of product realization

7.2 Customer-related processes
7.2.1 Determine of requirements related to the product
7.2.2 Review of requirements related to the product
7.2.3 Customer Communication

7.3 Design and development
7.3.1 Design and development planning
7.3.2 Design and development inputs
7.3.3 Design and development outputs
7.3.4 Design and development review:
7.3.5 Design and development verification
7.3.6 Design and development validation

7.4 Purchasing
7.4.1 Purchasing process
7.4.2 Purchasing information
7.4.3 Verification of purchased product

7.5 Production and service provision
7.5.1 Control of production and service provision
7.5.2 Validation of processes for production and service provision:
7.5.3 Identification and trace ability
7.5.4 Customer property
7.5.5 Preservation of product

7.6 Control and monitoring and measuring devices:

8. Measurement, Analysis and improvement
8.1 General

8.2 Monitoring and measurement
8.2.1 Customer Satisfaction
8.2.2 Internal Audit
8.2.3 Monitoring and measurement of processes
8.2.4 Monitoring and measurement of product

8.3 Control of non-conforming product

8.4 Analysis of data

8.5 Improvement
8.5.1 Continual improvement
8.5.2 Corrective Action
8.5.3 Preventative action