FACULTY OF ENGINEERING AND BUILT ENVIRONMENT

Main 2016

DEPARTMENT OF QUALITY AND OPERATIONS MANAGEMENT

PROGRAMME	BTech: Quality
MODULE	QUALITY AUDITING TECHNIQUES 4
CODE	QAT44-2
DATE	19 November 2016
DURATION	3 HOURS (SESSION 1)
TIME	08h30 – 11h30
TOTAL MARKS	100

EXAMINER	DR N SUKDEO / MS G CHILESHE
INTERNAL MODERATOR	MR N MADONSELA
EXTERNAL MODERATOR	MR A INDERLAL
NUMBER OF PAGES	7 PAGES including cover page and ISO clauses

INSTRUCTIONS TO CANDIDATES:

- Please answer all questions.
- Question papers must not 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.
- Clauses of ISO 9001:2008 attached.
- The general University of Johannesburg policies, procedures and rules pertaining to written exam apply.

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QUESTION ONE	25 marks

Read the case study below very careful and classify 5 non-conformities. [25]

You have just been appointed as a Quality Auditor at the Langa's chain of restaurants; you will be required to audit all the 6 restaurants within the chain across South Africa. As part of your induction, you are taken on a tour to the Langa's Midrand restaurant accompanied by the business owner Naledi.

Naledi is very serious about quality and wants you to provide an assessment of quality at the end of the tour. Your task is to ensure that the chain of restaurants is granted ISO 9001:2008 certified. During your tour you make the following observations

- Naledi takes you to the kitchen area where you notice that some of the cooks do not have any nets on their heads while preparing food. You ask one of the cooks why he isn't wearing a hair net, his response is that sometimes they do sometimes they don't it depends on availability of nets sometimes they have to use the same one for over 2days. You also notice that they do not have the same uniforms on, you ask Naledi about this and she mentions that the staff must buy their own uniforms, she issues them with the dress code it is up to them where they buy from.
- Naledi takes you to Thabo the restaurant manager who has been with Langa's for 10 years. When you asked him about a supplier list, his response was that he knew the suppliers very well, he had good relationships with them, and their products were always good and did not need any records or information about them. He knows all of them by heart.
- You go into the food storeroom where you observe that some of the fruits that were delivered this morning are badly bruised. Thabo mentions that in order to keep the operating costs low for the business, they buy their fruits and vegetables from the little supermarket round the corner because he is cheaper. They will use these fruits for purees and baked products instead of fruit salads so the customers won't really notice that the fruits are damaged. Thabo also mentions that they receive whatever fruits are available at the supermarket, it is not necessarily according to their preference, they do not always get what they order, and sometimes they will get apples instead of bananas.
- While in the food storeroom you notice a foul smell which leads you to the discovery of rotting cabbages in the cold room. Naledi calls for Thomas the supervisor who explains that he cannot understand why the cabbages are rotting, as they are stored in the cold room and the thermometer on the cold room door reads 20° centigrade as it always has done.

- While Naledi deals with Thomas and the cold room issue, you go into the bakery section, you notice that there is a table full of baked treats that were not sold over the last week and have now been removed from the display counter. You ask Mary the head baker what happens with these old goodies that were not sold. She says there is a system to either sell it at a reduced price to staff or it is given to an old age home. However she indicates with a wink in his eye that the correct documented procedure is to dispose of these goods.
- Suddenly there is a lady shouting at reception, she came in to collect her order for Mickey mouse themed birthday cake and 50 cupcakes, however what they show her is a mouse shaped cake and 15 dozen cupcakes. Thabo comes running to the bakery to find out what happened, Mary says that when the order was placed over the phone she confirmed it but she also adds that the line was not clear as always. There is always static over the line which she reported 2 months ago to Thabo but has not yet been fixed.
- Following the cake incident, you ask Naledi if they have a process for documenting and tracking complaints, she mentions that she lets Thabo delegate that to the staff, all bakery related complaints go to the head baker and food related complaints go to chef and so on, how they resolve them is up to them. Naledi goes on to mention that she is unaware of the number of complaints logged or what they are about.
- You the ask Naledi about the type of training that is provided to the staff and if they are aware of the ISO 9001:2008 standard. She says that they hire experienced people that have worked in the food industry and as such once they are interviewed, they show them around the restaurant, issue them with a dress code and let them get on with the job.

1.1 For each of the 5 non-conformities that you have identified above, briefly explain each of the as per the below table; use a separate table for each non-conformity:

- Finding: Indicate the Finding/Non-conformity
- Corrective action: Suggest a corrective action to correct the non-conformity from reoccurring
- Element: State the ISO element as per the ISO 9001:2008 clauses eg: 5.4.2 QMS Planning
- Rating : Major, Minor, Critical
- CAR No: Allocate a corrective action for each finding eg: CAR 001

- **Note : Each non-conformity may have more than one finding and corrective action**

Finding			
Corrective action		**Rating**	
Element		**CAR No.**	

QUESTION TWO	**25 marks**

2.1 Distinguish between corrective action and preventative action [5]

2.2 Explain with the aid of examples, the four sources of non-conformances that need corrective action [8]

2.3 Explain with the aid of examples, the four sources of non-conformances that need preventative action [8]

2.4 Define the phrase ***"root cause"*** in the context of non-conformities [4]

QUESTION THREE	**15 marks**

3.1 Discuss the principles of auditing. [5]

3.2 Describe the objectives of a quality audit. [5]

3.3 State any five activities of auditors. [5]

QUESTION FOUR	**15 marks**

4.1 Select an organisation of your choice and prepare an Audit Plan. [15]

QUESTION FIVE	20 marks

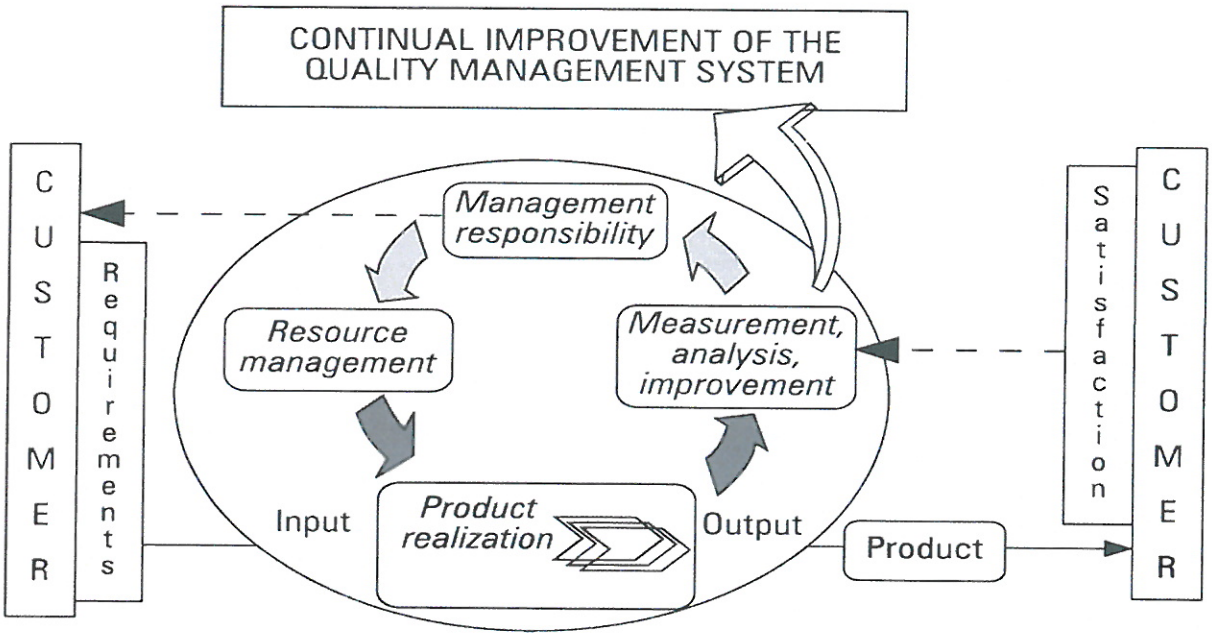

FIGURE 1

5.1 Discuss the quality management system identified in Figure 1. [10]

5.2 Illustrate and explain the PDCA cycle with regard to Figure 1. [10]

TOTAL = 100 MARKS

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