

University of Abou Bekr Belkaid
Faculty of Technology
Industrial Engineering Department
Third year Licence

Teacher: Miss N. HAMIMED

First English Exam (GI501)
(the corrected)

1. Answer the following question : Course questions (question de cours) (6.5points)

-According to the lesson, define briefly what is *Industrial Engineering*.

Industrial engineering is a field or an area of engineering that involves figuring out how to make or do things better.

-Cite four duties and responsibilities of industrial engineers.

Industrial engineers are concerned with :

- Reducing production costs,

- Increasing efficiency,

- Improving the quality of products and services,

- Ensuring workers' health and safety, protecting the environment and

Complying with government regulations.

-They work to eliminate waste of time, money, materials, energy and other commodities.

- Name four early practitioners (that I cited during the lecture) in the branch of industrial engineering

- Samuel Colt, who pioneered the assembly line;
- Frederick Taylor, who introduced scientific management, and time-and-motion study;
- Harrington Emerson, who described process improvement methods in his book, "Twelve Principles of Efficiency";
- Henry Laurence Gantt, who developed the Gantt Chart for organizational management;
- Henry Ford, who implemented the assembly line for automobile manufacturing; and
- Eliyahu M. Goldratt, who developed the Theory of Constraints (TOC), which identified the most significant limiting factor in a process — the "bottleneck" — and ways to improve it until it is no longer the constraint.

2. Classify the following words with their definitions : (4 points)

-Six Sigma : It is a set of tools and techniques for process improvement.

-Shortage: A state or a situation in which something is needed cannot be obtained in sufficient amount.

- Theory of Constraints: It is a methodology for identifying the most important limiting factor that stands in the way of achieving a goal and then systematically improving that factor until it is no longer the limiting factor.

-Time and Notion Study: It is a procedure in which the efficiency of an individual or other operation is evaluated.

- Streamline : It is to make an organization or a system more efficient and effective by employing simpler working methods.
- Assembly Line : It is a series of workers and machines in a factory by which a succession of identical items is progressively assembled.
- Roller-coaster : It is when someone or something go through many sudden or extreme changes in a short time.
- Bottleneck : Determine the throughput of a supply chain. Recognizing this fact and making improvement will increase cash flow.

3. Here are some vocabulary of the word 'Work', give words or expressions that have the same meaning as: (3 points)

- To be accepted for a new job **To be hired**
- To lay off **to knock off- to leave off**
- To fire **to dismiss- to discharge**
- To be in control of **to run- to manage**
- Employees can set their own schedule **flexi-time work**
- Working at different times, e.g days one week and nights the next week **Shift-time work**

4. Guess whether these sentences belong to conditional type 1, 2, or 3 and transform the verbs between brackets. (2 points)

-She must have loved him very much because she waited for him for fifteen years. If she (not love) **had not loved** him she (not wait) **would not have waited** so long.

-My unmarried friends are always telling me how to bring up my children. I sometimes think that if they (have) **had** children they (make) **would make** just as many mistakes as I do.

5. Fill in the gaps with the appropriate words: (3,5points).

Employees are involved in all stages of production and **processing** They may design new **facilities** from the ground up, or they may be responsible for **upgrading**, expanding or reconfiguring existing facilities. They may be required to design new **equipment** or write specifications for equipment purchased from outside vendors and ensure that it meets those requirements. They may also need to repurpose existing facilities and equipment, design new processes, and design new tools and fixtures. In order to maintain these **standards**, industrial engineers must have a basic working **knowledge** of many areas of engineering and also be familiar with work processes, equipment, tools and materials in order to design facilities, systems and equipment that meet **requirements** for cost, quality, safety and environmental protection.

5. Write the words below using the normal English alphabet (1 points)

/θri:/ three /ðəʊ/ though /jeləʊ/ yellow /bɔ:t/ bought