IE223L Workstudy and Methods Engineering

Student Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Program: BS Industrial Engineering

## Lab 05: To draw the operation process chart of the part produced

## Apparatus:

1. Lathe M/C
2. Raw material
3. Stop watch

## Theory:

**Process Chart**

The process of production of a piece of work should be analyzed thoroughly before undertaking a detailed investigation of a specific operation in the process. Such an over-all study will ordinarily include an analysis of each step in the manufacturing process, thus pointing out the advantages and the flaws of the route adapted for the production. One such method of examination the process is the process chart. The process chart is a device for recording a process in a compact manner, as a means of better understanding it and improving it. The chart represents graphically the separate steps or events that occur during the performance of a piece of work or doing a series of actions. The cart usually begins with the raw material entering the factory and follows it through every step, such as transportation to storage, inspection machining operations, assembly, until it becomes either a finished unit itself or a part of a sub assembly. The process chart might have, record the process through only one or a few departments. A process chart gives an overall picture of an event by recording the main operations and inspections in sequence. Only the principal operations carried out and the inspections made to ensure effectiveness are recorded, irrespective of who does them and where they are performed. A brief note of the nature of each operation or inspection is made beside the symbol, and the time allowed for it is also added. It is a graphic representation of the sequence of all operations and inspections taking place in a process. It is also known as outline process chart. It gives a bird's eye view of the overall activities Entry points of all material are noted in the chart

**Process chart symbols**

The recording of the facts about the job in a process chart is done by using standard symbols

Using of symbols in recording the activities is much easier than writing down the facts about

holidays are very convenient and widely understood type of short hand. They save a lot

of writing and indicate clearly what is happening

**Operation**

Indicates the main steps in a process, method or procedure. Usually the part, material or

product is modified or changed during the operation.

**Inspection**

Indicates an inspection for quality and/or check for quantity

**Transport**

Indicates the movement of workers, materials or equipment from place to place.

**Temporary storage or delay**

Indicates a delay in the sequence of events; for example, working waiting between consecutive

operations, or any object laid aside temporarily without record until required

**Permanent storage**

Indicates a controlled storage in which material is received into or issued from a store under

some form of authorization

**Combined activities**

The circle within the square represents a combined operation and inspection.

## Objective:

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## Procedure

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## Observations

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## Comments:

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