

Familiarization with **workshop**

Quiz 1

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Subject -Mechanical workshop

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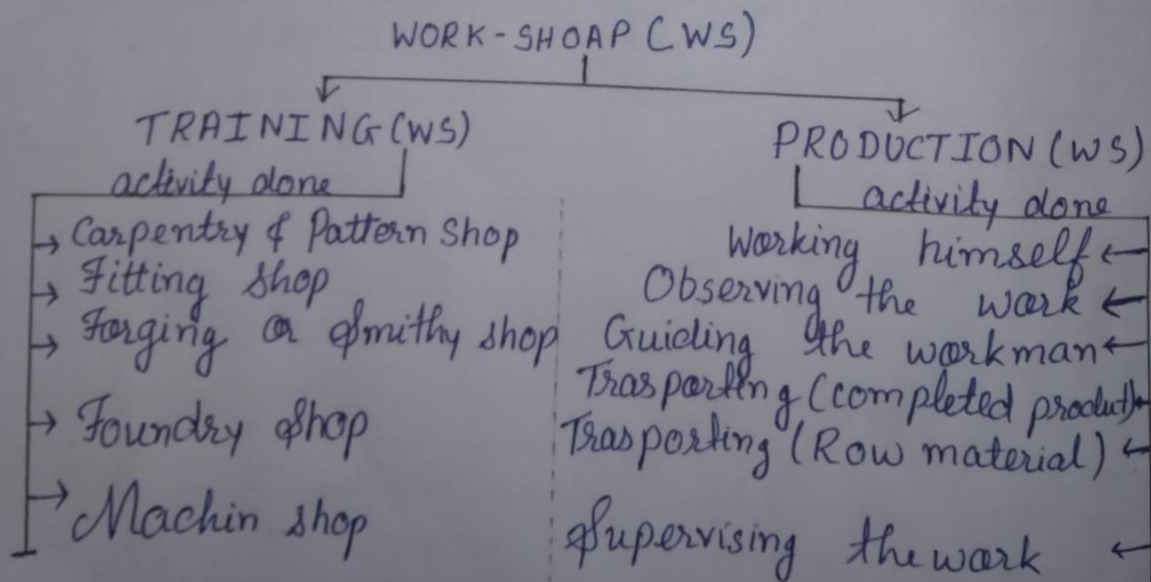
Q1Familization
With
Workshop

Q. 1. Classify types of workshops along with major activity performed in it.

Ans. → The word workshop is divided into two words. according to Mr. Webster

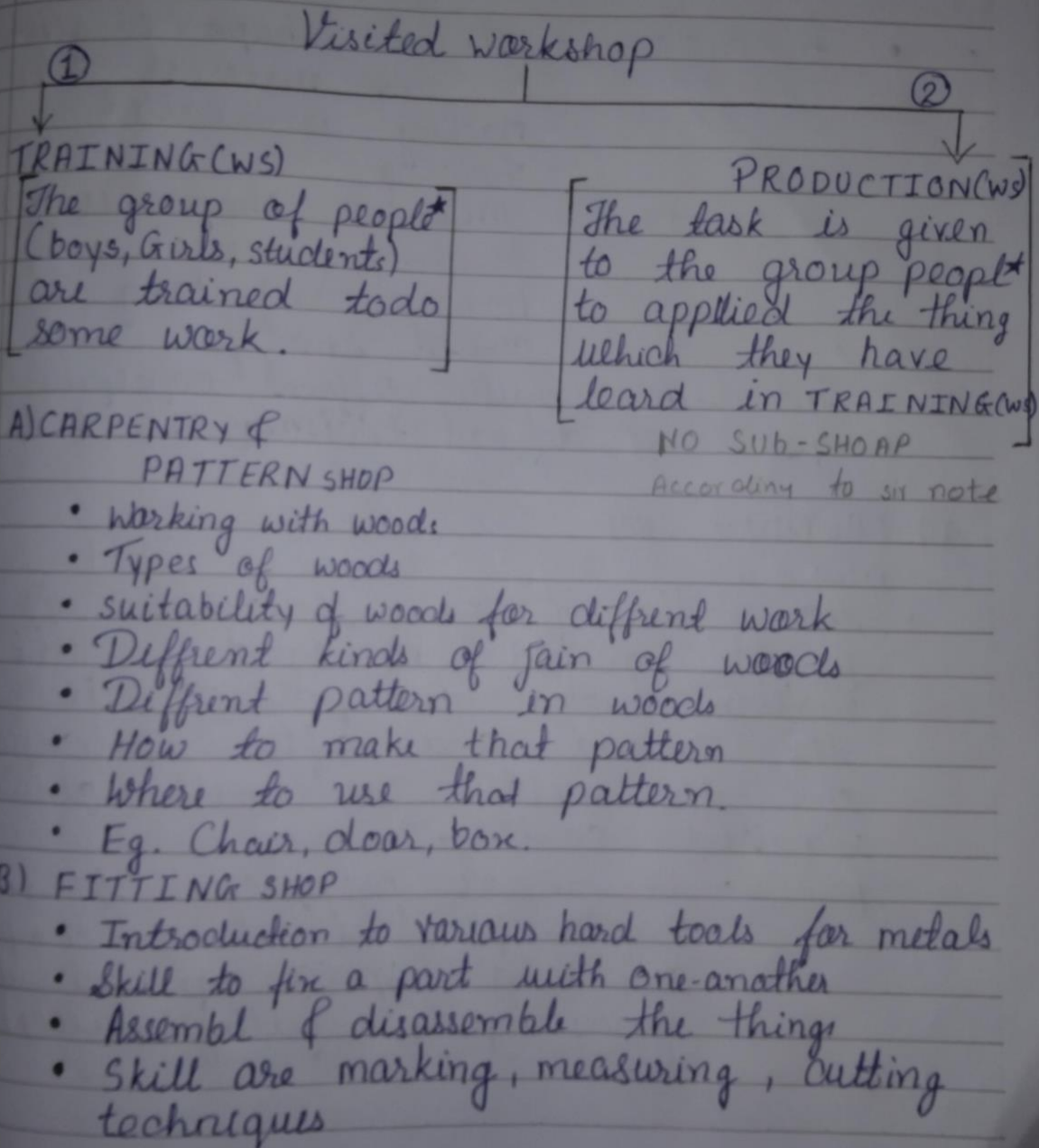
• Workshop = Work + shop
 (शिल्पशाला) [The work is done by a group with PHYSICAL + Intellectual] Logical (वेदों) = ENTHUSIASM
 PLACE

⇒ Classification of work-shoap.



Q2

Q.2 After visiting your workshop enlist different type of shops it has.



Q2.

C) FORGING OR SMITY SHOP

- ~~Metals~~ ^{Process} Metals $\xrightarrow[\text{process}]{\text{heating}}$ Shape [FORG]
- \rightarrow FORGING \Rightarrow When a shape is given to any material by Maching is called Forging
- \rightarrow SMITY \Rightarrow When a shap is given to any material by hammer and tong is called smity.
- Introduction with different equipment process & different technique.

D) FOUNDRY SHOP

- ^{Processes} Here the pattern is used to prepare mould in sand, the molten metal is poured* into the mould and after Solidification of the metal we will obtain required casting. \rightarrow Shaping of metal
- poured = The metal prepared to avoid negative pressure (it is compad dry sand, speed up exhaust gas, improve filling ability)

Q2.

What we can learn?

- sand & its variety
- processes for preparing sand mould
- various techniques for testing metals
- which can lead to make good casting

E) Machine Shop:

- here we will learn about basic type of machine
 - Drilling machine
 - Hacksaw machine
 - Lathe machine.

this machine are used to metal removal.

F) Fabrication Shop

G) Sheet Metal Shop

H) Plumbing Shop

Please use internet (Not in syllabus)

2) Type of WORK-SHOP in production work-shop.

- MASS PRODUCTION (WS)
- BATCH PRODUCTION (WS)
- JOB PRODUCTION (WS)

Teacher's Signature: _____

Q2.

A) Mass production.

- This production is based on the nature of production or manufacturing.
- Limited variety are produced in large quantity.
- All the product which are made by "UNILIVER"

B) Batch Production

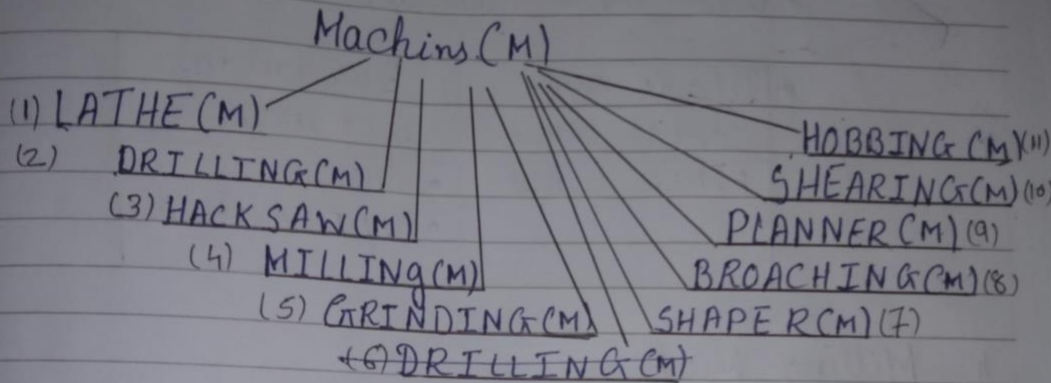
- The manufacturing of the product is done for predefined task or predefined time period is called batch production.
- eg: Mask (only during CORONA)

C) Job production.

- The material/product are produced as per the size and design of individual customer.

Q3.

Q-3 Write the different type of Machine.. we have seen our work shop?



1. Lathe Machins

- The Lathe Machins are use to
- Shap the the metals or woods
- It is basicaly used by rotating a work pice around a stationary cutter
- Main use:
 - remove unwanted material
 - give fine shap
 - Producing the shap which are symmetrical about an axis.

2. Drilling Machine.

- This machins are used to make hole in metal, plastic, concrete, ceramic, cement, of different diameter

Teacher's Signature: _____

Q3.

3. Hacksaw = HACK (ROUGH) + SAW (DEVICE)

- Hacksaw is a tool which is used to cut metals, steel pipe, metal sheet, plastic, wood

- Used by = Plumber & electrician

| Blade use | For cut in... |
|--------------|---|
| COARSE BLADE | SOFT METAL |
| FINER BLADE | <ul style="list-style-type: none"> • SHEETS • HARDER METALS |

4. Milling Machine

(EIS)

• Introduction

These machines are used in the rotary cut. main purpose is to remove undesirable ~~mach~~ metal material.

• processes

The work piece being held tight on the worktable the rotating tool is made to move vertically

• USE

Face milling
peripheral milling

Q3.5 Grinding Machine

This machine is use to give finishing to metal (The brush on the rotore is kept in in stand manner), this machine can also used to cut the metal (The cutting strip on the rotore is kept horizontal to the workpiece)

Maine use : To cut
: To give smooth & soft finishing.

6 Drilling Machine7. Shaper Machine.

There are 4-types of operations performed in a shaper machine. and those are:

- Horizontal cutting
- Vertical cutting
- Inclined cutting
- Irregular cutting
- Angular cutting

⇒ These machine use single point cutting tools which move in linear motion

Teacher's Signature: _____

Q3.

8) Broaching Machine

The Broaching is a process in which solid metal are given a specific ~~space~~ shape. This machine use tooth broach to get shape in solid

There are mainly two type

- 1) Linear
- 2) Rotary

9) Planner machine

A planer machine is also similar to the shaper machine but the area to cut is large

metals & woods are planed in it.

10) Shearing Machine

- Shearing also know die cutting
- cutting is done without the formation of chips of metals, turning melting
- It is multi tasking process flexibility in cutting curves, efficiency, accuracy, durability and quality finish.

Q4. Q5....

11) hobbing Machine (cutter wheel, screw, bar)

This machine is use to creat ~~on the~~ curves on the metallic tools. in short it is used to general gears on the solid metal.

Q-4 Write down a point an engineer should consider for achieving successive learner?

- Ability to lead, guide, control the group
- take disition without confusion
- carring out the oder of your subardina
- sence of cleanliness
- Cost - sense, mens uher we can reduce the cost
- What we can do for the safty precaution to machine and person.

Q-5 What an engineer tries to lear in workshop training?

Ans Detail disscution is done to in Question 2

Types of machine.....

(Click the machine for video of it....)

[Lathe machine](#)

[Drilling machine](#)

Hacksaw machine (ઝાડી, the machine use to cut metal rod, you will find near construction area)

[Milling machine](#)

[Grinding machine](#)

[Shaper machine](#)

[Broching machine](#)

[Planner machine](#)

[Shearing machine](#)

[Hobbing machine](#)