

Question 04:

(a). What do you mean by ceramics? Write various types and uses of ceramics in the modern technological world?

What are Ceramics?

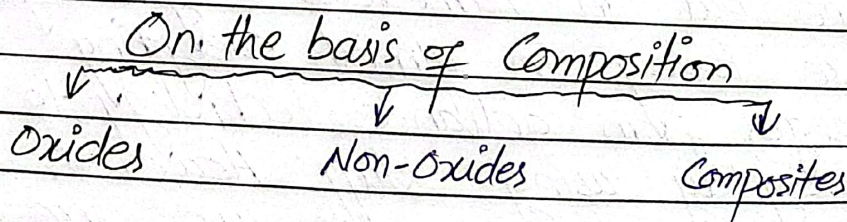
"A ceramic is an inorganic non-metallic solid made up of clay that have been shaped and then hardened by heating to high temperatures."

Ceramics can be found in products like watches, automobiles, space shuttles, appliances and airplanes.

Examples of Ceramics

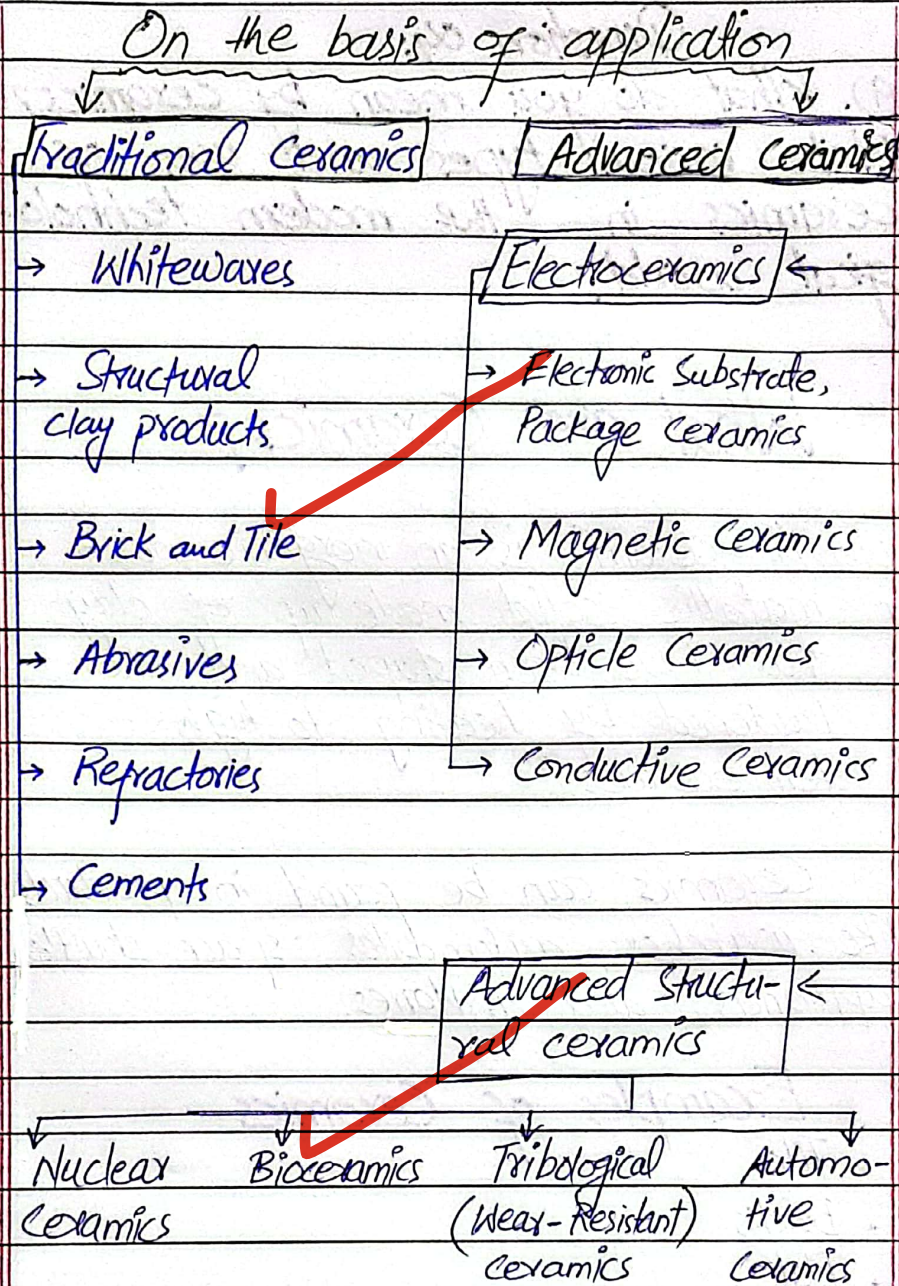
- Tile
- Bricks
- Plate
- Glass
- Toilets

Types of Ceramics



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Uses of Ceramics

Ceramics are used not in one but in numerous ways. They are today in almost everything ranges from advance technology to everyday using stuff. However, some of the major uses are listed as;

a. Aerospace

Ceramics are used in the formation of parts of space shuttles, sockets and space stations.

b. Automotive Industry

In automotive industry ceramics are used in catalytic converters, filters, rotors, valves, spark plugs and thermostat etc.

c. Medical Uses

Ceramics are used in dental and bone fillings and in bone implants.

d. Computer & Electronics

Computer parts like insulators, resistors, superconductors, capacitors are made up of ceramics.

e. Nuclear Ceramics

Ceramics are used in the generation of nuclear power and in the disposal of radioactive nuclear waste.

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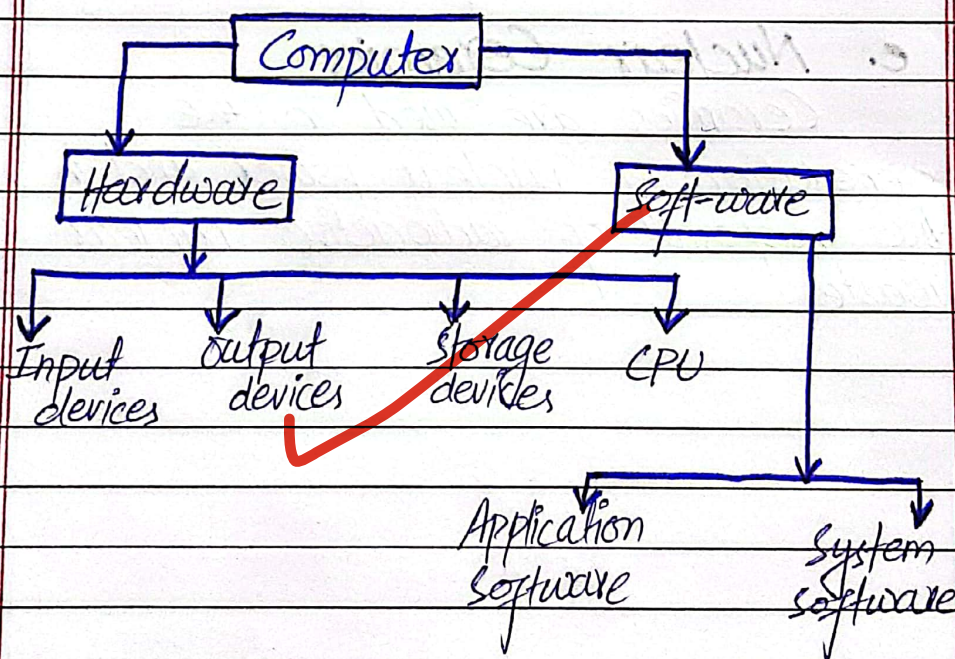
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(b). What is computer? Write the different input and output device of a computer. Also explain the difference between hardware and software.

What is a Computer?

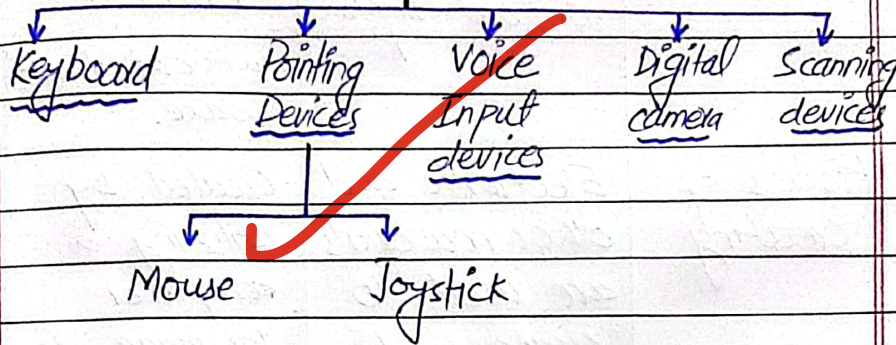
"A computer is an electronic machine operating under the control of instructions stored in its own memory that can accept data, manipulate the data according to specified rules, produce results for future use."



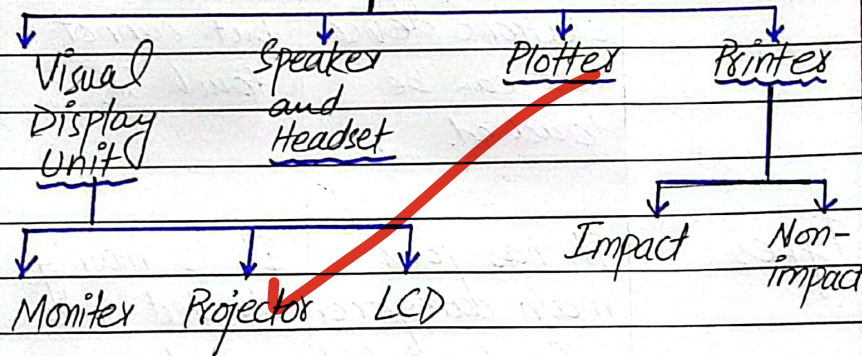
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Input Devices



Output Devices



Difference between Hardware and Software

Parameters	Hardware	Software
Basic Definition	Hardware is a physical part that causes the processing of data.	Software is a set of instructions that tells a computer what to do.
Development	It is manufactured.	It is developed and engineered.

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Dependency	Hardware cannot perform fast without software	The software cannot be executed without hardware.
Process of creating.	Electronic and other materials are used to create hardware	Created by utilizing a computer language to write instructions
Tangible	It is tangible as it is a physical electronic device that can be touched.	It is intangible as one can see but cannot touch it.
Types	It has four main categories: • Input • Output • Storage • Internal components	It is mainly divided into • System software • Application software
Transfer	It cannot be transfer from one place to another electrically through the network.	It can be transferred via network means.
Examples	Keyboard, Mouse, Monitor, Printer, CPU, RAM, ROM.	MS Word, Excel, Power Point, Photoshop, Canvas.

good answers!!!!