Sec 1. ans 2 ⇒ Honing :—

It is an abrasive machine process that produces a precision surface on a metal workpiece by scrubbing an abrasive grinding stone or grinding wheel against it along a controlled path. Honing is primarily used to improve the geometric form of surface, but can also improve surface finishes.

Typical applications are the finishing of cylinders for internal combustion engines, air bearing spindles and gears. There are many types of hones but all consist of one or more abrasive stone that are held under pressure against the surface they are working on.

In terms of sharpening knives, a honing steel neither hones nor sharpens knives, but simply realigns the metal along the edge of the blade.

Lapping :—

It is a machine process in which two surfaces are rubbed together with an abrasive b/w them, by hand movement

or using a machine.

This can take two forms. The first type of lapping (traditionally called grinding), involves rubbing a brittle material such as glass against a surface such as iron or glass itself (also known as the 'lap' or grinding tool) with an abrasive such as aluminium oxide, emery, silicon carbide, diamond etc, b/w them. This produce microscopic conchoidal fracture as the abrasive rolls about b/w the two surface and removes material from both.

Polishing :—

It is the process of creating a smooth & shiny surface by rubbing it or using a chemical action, leaving a surface with significant specular reflection. In some material (such as metals, glasses, black or transparent stones), polishing is also able to reduce diffuse reflection to minimal values. When an unpolished surface is magnified thousands of times, it usually looks like mountains & valleys. By repeated abrasion, those "mountains" are worn down until they are flat or just small "hills". The process of polishing with abrasives starts with coarse ones and gradually to fine ones.