1. Explain the process of painting on wood with Enamel.

Following the process to paint on a wooden surface with enamel

- If the surface is already painted or varnished, remove dirt or wax buildup with a household cleaner and rinse.
- Sand rough areas and wipe away dust with a tack cloth.
- Apply two coats of stain-blocking primer and allow it to dry between coats.
- Roll or brush on two coats of enamel paint in the direction of the wood grain.
- Use a brush to finish the surface with smooth strokes.
- For furniture or cabinetry that will receive heavy use (like kitchen cabinets that are opened on a daily basis), it's a good idea to seal the finish with two coats of polyurethane.

2. What steps can be taken to prolong the life of a paint job?

After the Painting is over, it is important to maintain the building so that it remains beautiful. So, maintenance should be done at least once in three months: –

CLEANING OF PAINTED SURFACES:

Painted surface – First, lightly wipe all loose dust on the walls with a clean white cloth or a sponge. Then remove stains by wiping them with a sponge dipped in a mild detergent. Repeat the sponging with plain water to remove the left over detergent. Wipe dry. Remove grease stains by wiping with a mild solvent. The solvent should be milder than denatured alcohol, so that it does not cause the painted surface to turn patchy. Follow this by sponging with a mild soap solution. Rinse the surface with clean water. Wipe dry.

Distempered walls- Distempered walls should be also cleaned in a similar manner, but without applying too much pressure as this can cause the paint to peel off. Never use water for spot cleaning unless the wall is totally free from extraneous dust.

Wooden surfaces - Never use water to clean wooden surfaces.

Enamel surfaces – Enamel surfaces should be cleaned with a detergent solution and immediately wiped dry. Never use thinners to clean enamel painted surfaces.

Metal surfaces – If paint on metal or steel accessories is damaged, have it touched up immediately with primer and paint to avoid rusting.

TOUCH UP OF PAINTED SURFACES:

Sometimes, cleaning is not enough and a touch-up is required. Prior to the touchup, the surface should be sanded to make it even. This can be done first with coarse sandpaper, followed by smoothing with a fine-grain sandpaper. Brush off all debris. Use primer on the surface that needs to be touched up. Then apply denatured alcohol on the surface to be painted. This will help remove any moisture or residue. Follow it up with a coat of paint, which can be applied with a brush, roller or a spray can.

3. What is a Primer? What is the purpose and uses of Primer? Explain.

Primer paint is a preliminary layer of coating that is applied on the materials prior to the paint. It ensures that the paint adhesion to the surface is proper, enhances

the durability of paint, and imparts extra safety to the surface being painted. Primer also seals the pores in the permeable materials, and averts bleeding from knots. If suitably applied, primers will enhance the life of the paint, and also improve the appearance.

USES OF PRIMER

All incomplete surfaces are required to be primed prior to painting, including dry walls, concrete, wood, and metal. Application of paint to unprimed surfaces may cause additional peeling and development of cracks, compared to when the paint is applied to suitably primed surfaces. Therefore, though this process of priming may cause additional expenditures, preferably it must not be omitted.

Surfaces that have been previously painted may not need priming, unless the oil based paints are being changed to latex paint, or the paint already applied has deteriorated. The surfaces that have deteriorated should be cleaned suitably before the application of primer.

Proper preparation of the surfaces will ensure better adhesion of the primer. Primers can be chosen to correspond with the color of the paint.

4. What is the difference between enamels and varnishes? Can both be used to paint on Woods?

A **varnish** is a liquid without any pigments or coloring agents. They are transparent and applied as clear coats. Varnish comes in an Oil-Based and Latex formula. The difference between the two is slight, but important. Both will give the same durability and longevity. The latex is easier to clean up, but does not store as easily because you are required to store it at room temperature. If it freezes, it is no longer usable. An oil-based varnish can be stored anywhere because the oil will not freeze. The oil-based has a tendency to yellow at a faster rate than the latex. Oil-based is also harder to clean and dispose of.

An **Ename**l Paint is a paint with Alkyd Resins as binders. Epoxy Enamels are made with epoxy resins. The difference in Enamel vs. Varnish is that Enamel only comes in colors. Enamel does not come in clear. Enamel can also be sprayed or

brushed, but the trade off is that oil-based enamels take up to 12 hours to fully dry. They do make a Latex version of enamel that dries faster, but I have not been as impressed with the quality vs. oil-based. If you have only a small project that needs to be done, latex will be fine. If you have a large project, such as all the trim on a level of the house, I would go with an oil-based. It will hold up better and last longer.



Both varnishes and enamels can be used to paint on

wood. While Varnish will not hide the natural grains on the wood, enamel will give an opaque coat. Using enamel or varnish depends on the type of project an requirement.

5.Name three common painting defects and also mention their remedies.

Blistering: Blistering or Swelling of paint is caused due to the trapping of air, moisture or solvent between the surface and the paint film. The solution-Remove any unstable paint films and allow the wall to dry thoroughly. Then repaint with a recommended paint. Avoid painting under direct sunlight.

Efflorescence: Efforescence or formation of white powdery deposit on walls after painting is caused due to salts present in the building material like brick and mortar, which surface later on. The Solution- Give a long time gap between plastering and painting (about 6 months including one monsoon) Use paint with a porous film like emulsions and distempers.





Flaking: Flaking-off of paint film is due to improper application of primer coat over putty, and not being completely covered. It can be due to application of paint on insufficiently dry surfaces. It can also be due to shrinkage or expansion of a surface causing the paint film to move. The Solution-Ensure that there are no gaps in covering putty with primer coat. Also ensure that the surface is dry and clean.