

## Section - 3

Q.1

Paints

a) Paints are liquid composition of pigments and binder which when applied to the surface in thin coat dry to form a solid film to impart the surface a decorative finish, apart from giving protection to the base material from weathering, corrosion and other chemical and biological attacks.

b) Paint changes the colour of a surface.

Varnishes

a) Varnish is the solution of resins or resinous substances like amber, Copal, shellac, gum resin etc. in solvents like oil, turpentine, alcohol etc.

b) Varnish protects either the surface or the color of the surface (paint) or both.

The essential constituents of paints are as follows:

- 1) Bases: It is a principal constituent of paints. It also possesses the binding properties and form an opaque ~~glazing~~ coating. White lead, red lead, Zinc oxide, titanium, white aluminium powder & lithopone are used as base in paint.
- 2) Vehicles: The vehicles are the liquid substances which hold the ~~the~~ ingredient of paint in liquid suspension and allow them to be applied on the surface to be painted.  
Boiling makes the oil thicker and darker.



Linseed oil, tung oil and nut oil are used as vehicle in paints.

3) Pigments: Pigments are give required colour for paints. They are fine particles and have a reinforcing effect on thin film of the paint. They also improve the impermeability of the paint film.

4) Drier: These are the compounds of metal like lead, manganese, cobalt. The function of a drier is to absorb oxygen from the air and supply the it to vehicle for hardening. The drier should not be added until the paint is about to used.

5) Thinner: It is also known as solvent. It makes paint thinner and hence increases the coverage. It helps in spreading paint ~~and~~ uniformly over the surface. Turpentine and naphtha are commonly used thinners. After paint applied, thinner evaporates and paint dries.