

Section-5

Ans-1 Lime Bursting problem:

- (i) A common defect of bricks and tiles is a weakening or breaking of bricks which is caused by the hydration of quick lime particles derived from limestone in brick making clays.
- (ii) By mixing common salt in black cotton soils, lime bursting can be prevented, 0.5% sodium chloride is sufficient.
- (iii) Second method is to put all the bricks in water just after they are removed from the kiln. This process is called docking.

Efflorescence:

- (i) This defect is caused because of alkalis present in bricks. When bricks come in contact with moisture, water is absorbed by them.
- (ii) The process often continues for many years depending on the quantity of salts present in the bricks and their solubility.
- (iii) This absorbed water dries out by evaporation from the exposed faces, and as it does so the soluble salts it contains crystallize out on the surface.

- (iv) The less soluble salts, such as calcium sulphate, take much longer period to be leached out.
- (v) Magnesium salts are very soluble and are the most destructive.
- (vi) Bricks which have been saturated before their placement in masonry will be more prone to efflorescence than those under dry conditions.
- (vii) This can be achieved by providing waterproof coping and by using water repellent materials in mortars and by providing damp proof course.