Glossary

1. ***Flexural Failure***-As the beam sags under increased loading, it can fail in two possible ways. If relatively more steel is present on the tension face, concrete crushes in compression; this is a brittle failure and is therefore undesirable. If relatively less steel is present on the tension face, the steel yields first and redistribution occurs in the beam until eventually the concrete crushes in compression; this is a ductile failure and hence is desirable
2. ***Shear Failure***-A beam may fail due to shearing action. A shear crack is inclined at 45° to the horizontal; it develops at mid-depth near the support and grows towards the top and bottom faces
3. ***Stirrups***–Stirrups are structural members in RC beams that helps in carrying the vertical shear force and thereby resist diagonal shear cracks, protect the concrete from bulging outwards due to flexure, and prevent the buckling of the compressed longitudinal bars due to flexure.