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## **Question:**

Define following terms as applied to rolling contact bearings: 1) Basic static load rating 2) Basic dynamic load rating 3) Limiting speed

## **Answer:**

(i) definition of (1) Basic static load rating-static radial load or axial load which corresponds to a total permanent deformation of the ball and race, at the most heavily stressed contact, equal to 0.001 times the ball diameter. (2) basic dynamic load rating- the constant stationary radial load or a constant axial load which a group of of apparently bearings with stationary outer ring can endure for a rating life of one million revolutions with only 10% failure. (3) Limiting speed- it is the empirically obtained value for the maximum speed at bearings can be continuously operated without failing from seizure or generation of excessive heat.