

## **Tata Motors Technical Interview Questions**

**Q1.** What type of key is used in wrist watch?

**Q2.** A four bar link mechanism is given with moment  $m$  acting on crank and also a force given at crank end. Find the reaction at hinged end of crank.

**Q3.** Which type of gear is hypoid gear?

**Q4.** Bending stress is proportional to ----

**Q5.** In a damped free excitation system, when does maximum amplitude occurs?

**Q6.** Two masses are resting on an inclined plane with 30 degree angle and the two masses are welded with weightless rod and coefficients of friction is given. Find the common acceleration of two masses.

**Q7.** Hollow cylinder of outer  $D_0$  is given find the diameter of solid cylinder for the same material and same torsion strength?

**Q8.** What is principle plane?

**Q9.** Two masses are of different weights, smaller one is placed on the bigger mass. If the force is acting on bigger mass given, find the acceleration of smaller mass.

**Q10.** Explain set screws?

**Q11.** When bolt is subjected to longitudinal force, what will be the stress on minor diameter of bolt?

**Q12.** Two masses are connecting with string on to pulley coefficient of friction of mass  $m_1$  is given and also  $m_1$  and  $m_2$  are given. Find the relation between  $m_1$  and  $m_2$ , to make  $m_2$  move downwards.

**Q13.** What is the Poisson's ratio?

**Q14.** What is Envelope of damped free vibration?

**Q15.** A ball with a mass  $M$  is falling on to the ground with some velocity  $V_1$  and raising with velocity  $V_2$ . Find the impulse?