1. Answer **briefly** following:
2. How to locate the minimum and maximum speed points in a turning moment diagram?
3. A 2-stroke and a four stroke petrol engines are producing same power. If all other conditions remain the same which one will require a larger flywheel and why?
4. Though both the devices are meant for controlling the speed of operation in a machine, what are the essential differences of operation between a flywheel and a governor? – Mention two points for each of them.
5. Prove that efficacy of the Watt governor decreases at higher speed range.
6. Each arm of a Porter governor is 200 mm long and is pivoted on the axis of the governor. For maximum lift of the sleeve the radii of governor varies from 120 mm to 160 mm. The mass of the sleeve is 24 kg and each ball is 4 kg. If the speed of ascend from the lowest position of the sleeve is equal to the speed of descend from its highest position find the friction in between the sleeve and the spindle. Also determine the range of speed.