

SAQ1

- 1) a) Fly wheels are heavy with a large moment of inertia while governors are light with a relatively small moment of inertia.
 - b) A flywheel runs as long as the engine is running while the governor has ^{runs when the engine doesn't run at its} ~~no influence on the cyclic fluctuation in~~ main speed.
 - c) Fly wheel has no influence over the mean speed of the engine while the governor has no influence on the cyclic fluctuation in speed.
- 2) The governor is a "mechanical feedback control system"
 - 3) a) The sensitivity of the inertia governor is greater than that of the centrifugal governor.
 - b) The revolving parts of the centrifugal governor are easier to balance than that of the inertia governor.
 - c) The response of the centrifugal governor is slower than that of the inertia governor.

SAQ 2

- 1) The watt governor is rarely used because it is limited to only vertical position applications and its sensitivity decreases with speed increase.

SAQ 3

- 1) The porter is more sensitive at higher speeds than the watt governor and the porter governor can carry dead weight unlike the watt governor.

SAQ 4

- 1) A dead weight gravity controlled governor is preferred in IC engines as the basic principles of engine operation is centrifugation.