

FELIX EZIONU VICTOR  
17/ENIG06/036  
MEE 312

### 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 <sup>runs when the engine doesn't run at its</sup> ~~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"
- 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.

SAQ2

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

SAQ3

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.

SAQ4

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