

ONUGBO ESTEOR V

17/ENG06/072

MECHANICAL ENGINEERING

MEES12

1) Compare flywheel with governor

Flywheel	Governor
• It is used in toys, watches in engines.	It is used in automobile
• Speed control in a single cycle	Speed control over a period of time.
• It is not essential for every prime mover	It is an essential element of a prime mover
• It stores energy and gives up the energy when required	It regulates the speed by regulating the quantity of charge.
• Its working does not depend upon the change in load or output required	It depends upon the variation of load.

2. Which type of control system is the governor?

It is a mechanical feedback control system which senses the output and regulates input accordingly

3. Compare centrifugal governors with inertia governors.

Centrifugal governor	Inertia governor
• Masses rotate in horizontal plane	Mass rotate in horizontal plane
• It is not directly attached to the engine shaft	It is directly attached to the engine shaft
• It works on the principle of balancing of centrifugal forces	It works on the principle of moment of inertia

4. Why is watt governor very rarely used?

- They are limited to vertical position applications.
- They are sensitive because they have no dead weight at their sleeve.

5. In which respect porter governor is better than Watt governor?

Sensitivity. The Watt governor is more sensitive than the porter governor.

6. For IC engines, what type of governor will you prefer: Dead weight or spring controlled?

A dead weight type is preferred because the basic principle of engine operation is centrifugation.