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17/ENG01/001
Mechanical Engineering

MET 312

SAQ 1

i) compare flywheel with governor

a] The flywheel is a heavy rotating wheel that that reduces the dirk due to unavailable speed fluctuations while a governor is a speed controlling device that controls speed variation caused due to varying load.

b] A flywheel runs as long as the engine is running while the governor runs ~~diffe~~ when the engine run at its mean speed.

c] Flywheel have no influence over the mean of the engine while the governor has no influence on the cycle fluctuations in speed.

d] flywheels are heavy with a large ~~amount~~ moment of inertia while governor are

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eject with a relatively small moment of inertia

2] which type of control the governor system is?
Ans: Mechanical feedback control system.

3] Compare centrifugal governors with inertia governors

a] The response of the centrifugal governor is slower than that of the inertia governor

b] Only centrifugal force controls the centrifugal governor while both centrifugal & inertia forces control the inertia governor.

c] The sensitivity of the inertia governor is greater than that of the centrifugal governor.

d] The revolving parts of the centrifugal governor are easier to balance than that of the inertia governor.

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SAQ 2:

why is the watt governor rarely used?

ANS: The watt governor is rarely used because it is limited to only vertical position applications & its sensitivity decreases.

SAQ 3:

in which respect is the porter governor is better than watt governor?

Ans The porter is more sensitive at higher speeds that watt governor & the porter governor can carry dead weight unlike the watt governor.

SAQ 4:

For IC engines, what type of governor will you prefer: Dead weight type or Spring controlled type? Give reasons

ANS

A dead weight gravity controlled governor is proposed in IC engines as the basic principles of engine operation is centrifugation.