ZIDAFAMOR OYINMIEBI BENAENGOGHA

17/ENG06/090

MECHANICAL ENGINEERING

MEE 312

ASSIGNMENT 1

1. Compare flywheel with governor.

s/n	flywheel	governor
1	It controls the speed variation caused by the fluctuations of the engine turning moment during each cycle of operation.	The function of a governor is to regulate the mean speed of an engine, when there are variations in the load.
2	It stores energy and gives up the energy when required.	It regulates the speed by regulating the quantity of charge.
3	Its working does not depend upon the change in load or output required	It depends upon the variation of load.
4	Speed control in a single cycle	Speed control over a period of time
5	It has no control over the quantity of working fluid.	It takes care of the quantity of working fluid.
6	It is not essential for every prime mover.	It is an essential element of a prime mover.
7	It is used in toys, watches, ic engines.	It is used in automobiles.

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.

s/	Centrifugal governor	Inertia governor

n		
1	It works on the principle of balancing of centrifugal forces.	It works on the principle of moment of inertia.
2	It is not directly attached to the engine shaft.	It is directly attached to the engine shaft.
3	Masses rotate in horizontal plane	Masses rotate in horizontal plane
4		

4. Why is watt governor very rarely used? Give reasons.

   It is rarely used because of its sensitivity because it has no dead weight at its sleeve. They are also limited to vertical position applications.

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

   It is more sensitive that the watt governor.

6. SPRING CONTROLLED CENTRIFUGAL GOVERNOR. This is because of the vibrations involved when operating an IC engine is quite numerous.