**Gulistan Academy**

Physics (9th) Max.Marks = 20

Chapter No.6 (Work and Energy) Pass Marks = 15

Time Allowed = 30 min

**Question No.1: Give short answers. (6x2 = 12)**

1. When does a force work? Explain.
2. Why fossil fuels are called non-renewable sources of energy? Explain.
3. Write names of five devices that convert Electrical Energy into Mechanical Energy.
4. Calculate the power of a pump which can lift 200 kg of water through a height of 6 m in 10 seconds.
5. Draw an Energy Flow Diagram of an Energy Converter for a vehicle moving with constant speed on a level road.

**Question No.2: (4+4 = 8)**

1. What is Mechanical Energy? Define its different types. Also drive an expression for Kinetic Energy.
2. An electric motor of 1 hp is used to run water pump. The water pump takes 10 minutes to fill an overhead tank. The tank has a capacity of 800 liters and height of 15 m. Find the actual work done by the electric motor to fill the tank. Also find the efficiency of the system.

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