**Module 6 Week 5 Lesson 18 SDL**

1. A motor has an input power of 800 watts and an output power of 720 watts. Calculate the efficiency of the motor.
2. What is the power factor of a circuit if the real power is 500 watts and the apparent power is 600 volt-amperes?
3. A motor has a torque of 15 Nm and a rotational speed of 1200 RPM. Calculate the output power of the motor using the formula Pm = T x ω.
4. Why is it important to improve the power factor of motors?
5. A motor has an input power of 2 kW and an efficiency of 85%. Calculate the output power of the motor.
6. If a circuit has an apparent power of 500 VA and a power factor of 0.9, what is the real power consumed by the circuit?
7. A motor operates with a power factor of 0.8 and consumes 10 kW of real power. Calculate the apparent power of the motor.
8. A motor has a torque of 20 Nm and a rotational speed of 1500 RPM. Calculate the angular speed in radians per second.
9. Explain the relationship between torque and power in a motor.
10. A motor has an output power of 800 watts, an efficiency of 90%, and a power factor of 0.85. Calculate the input power to the motor.