

Mid Examination

Course Title: Electrical Technology Sessional **Course Code:** EEE 212
Time: 30 minutes **Marks:** 15

1. **Which** type of motor is used in the pump for an Arduino based project? **Describe** the working principle of that motor with proper figures. **Draw** the equivalent circuit of any type of that motor.
 $1+2+2 = 5$
2. Suppose you are in a spaceship (Zero Gravity). Now you need a motor for showering where you need constant speed of water and you have three phase AC sources and also DC sources. Then, **which** type of motor you will choose and **why**? **Describe** how real and reactive power generation is controlled in that machine. **Show** the power house diagram of that machine which is sharing load with an infinite bus and explain briefly.
 $1+1+2+1 = 5$
3. Suppose you are a project director of a project in PSTU. You have to use a motor in your project where you have a three phase AC source but no DC source. Then, **which** type of motor will you choose and **why**? **Draw** the equivalent circuit of that motor.
 $1+2+2 = 5$