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| **DOCUMENT RULES:** | |
| **Task Number/Name** | **Task 1 /** |
| **Task name & column name should be written:** | **Bold (CTRL+B)** |
| **All other text should be written:** | Standard |
| **Font name and text size:** | Calibri and 9 |
| **Group name:** | Group\_2 |
| **Student name and surname:** | Sadaf Talibzade |
| **E-mail:** | [sdftlbzd@gmail.com](mailto:sdftlbzd@gmail.com) |
| **WhatsApp number:** | **+994504881038** |

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| **Task names** | **Command steps and outputs** |
| 1. **Smart and regular UPS.** |  |
| 1. **What is UPS use for?** | An uninterruptible power supply (UPS) is a device that allows a computer to keep running for at least a short time when incoming power is interrupted. As long as utility power is flowing, it also replenishes and maintains the energy storage. |
| 1. **Types of UPS** | There are three types of uninterruptible power supplies: static,dynamic (rotary), and hybrid. |
| 1. **Static UPS**   **-Offline UPS**  **-Line Interactive UPS (regulated and unregulated)**  **-Online double cycle UPS)** | Static or Rotary UPS: Which is best for your application?A static UPS system provides instantaneous backup power from a battery when the utility power fails. |
| 4.1. Offline/standby UPS | Offline UPS supplies the mains directly to the load under normal operating conditions. In case of power failure, the UPS is activated and the power cut is felt by the user, even for a short time.  What Is An 'Offline' UPS?Offline type UPSs are generally produced in small power. Because in case of a power outage in the mains, problems may occur at high power when the UPS transfers the load to the battery group. |
| **4.2. Line-Interactive UPS (regulated and unregulated)** | What is a 'Line Interactive' UPS?The line-interactive UPS is similar in operation to a standby UPS, but with the addition of a multi-tap variable-voltage [autotransformer](https://en.wikipedia.org/wiki/Autotransformer). This is a special type of [transformer](https://en.wikipedia.org/wiki/Transformer) that can add or subtract powered coils of wire, thereby increasing or decreasing the magnetic field and the output voltage of the transformer. |
| **4.2.1. Regulated UPS** | Let’s start by discovering what is regulated power supply, and why does it matter? Regulated power supplies have voltage regulators on their output. This means that the regulator ensures the output voltage will always stay at the rated value of the power supply, regardless of the current that the device is consuming. Any change in the input voltage will not affect the output voltage because of the regulators. |
| **4.2.2. Unregulated UPS** | Unregulated power supplies are designed to produce a certain voltage at a particular current. That is, to use the fancy electrical terms again, unregulated power supplies provide a constant amount of power (voltage x current). |
| **4.3. Online double cycle UPS** | How double-conversion online UPS operate? | Schneider Electric ThailandIn an online UPS, the batteries are always connected to the inverter, so that no power transfer switches are necessary. When power loss occurs, the rectifier simply drops out of the circuit and the batteries keep the power steady and unchanged. When power is restored, the rectifier resumes carrying most of the load and begins charging the batteries, though the charging current may be limited to prevent the high-power rectifier from damaging the batteries. The main advantage of an online UPS is its ability to provide an "electrical firewall" between the incoming utility power and sensitive electronic equipment. |
| 1. **Dynamic (rotary) UPS** | Dynamic or rotary UPSs are manufactured with higher capacities and higher voltage generation possibilities (with power ratings from 200kW to 3000kW) perfect for industrial environments.  Diesel Rotary UPS (DRUPS) |
| **6. Hybrid UPS** | The main feature of Hybrid-UPS is to be able to generate uninterrupted electricity through solar energy, battery, grid or generator in a controlled manner. The new hybrid technology intelligently offers the most economical and ecological power option for loads. |
| **7.Smart UPS** | Ups APC Smart online 2kVA / 1.6kW UPS (SRV2KI) ucuz qiymətə almaq -  Bakinity İnternet MağazasıThe Smart-UPS is a series of enterprise-level [uninterruptible power supplies](https://en.wikipedia.org/wiki/Uninterruptible_power_supply) (UPS) made by [American Power Conversion](https://en.wikipedia.org/wiki/American_Power_Conversion) (APC). Most of the units have a SmartSlot (with the exception of SC and SMC series) which accepts an optional interface card providing features ranging from network connectivity to temperature and humidity monitoring. With the exception of RT and SRT series, Smart-UPS units are [line-interactive](https://en.wikipedia.org/wiki/Uninterruptible_power_supply#Line-interactive) UPS systems, only running their inverters when the grid power is unavailable. |