**Name:** Jalal Uddin

**ID:** 22-46356-1

**Serial:** 03

**Section:** R

**Assignment:** F3

**Power Rating Calculation:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sl. No. | Appliance/Device | Quantity | Power per Unit (Watt) | Total Power (Watt) |
| 1 | Normal Light (L) | 10 | 100 | 1000 |
| 2 | One kind of Light (K) | 12 | 100 | 1200 |
| 3 | Tube Light (T) | 7 | 40 | 280 |
| 4 | Hanging Light->(CH) | 1 | 100 | 100 |
| 5 | Ceiling Fan | 6 | 70 | 420 |
| 6 | 2-Pin Socket (5A) | 7 | 200 | 1400 |
| 7 | 3-Pin Socket (15A) | 4 | 1000 | 4000 |
| 8 | Switch Board Socket->(SS) | 6 | 200 | 1200 |
| 9 | TV Socket->(TS) | 4 | 100 | 400 |
| 10 | Air Conditioner (AC) | 4 | 1200 | 4800 |
| 11 | Television (TV) | 4 | 200 | 800 |
| 12 | Motor (ML) | 4 | 746 (1 HP) | 2984 |
| 13 | Exhaust Fan ->(EF) | 4 | 90 | 360 |
|  | Total |  |  | 18,944 W / 18.944 kW |

**Total Power Requirement:**

* **Total Load** = 1,000 + 280 + 100 + 420 + 1400 + 4000 + 1200 + 400+4800+800+2984+360
* **Total** = 18,944 Watts = 18.944 kW

**Generator Recommendation:**

* Nearest Generator Size Required: **25 kW**

**Generator Room Requirement** (as per Bangladesh National Building Code):

* **Minimum Area**: 20 square meters for the generator room (for a conference room setup).