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| **American International University- Bangladesh (AIUB)**  **Faculty of Engineering (EEE)** | | | |
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| **Course Name:** | COMPUTER AIDED DESIGN AND DRAFTING | **Course Code:** | BAE 2101 | |
| **Semester:** | Summer 2019-2020 | **Sec:** | **L** | |
| **Faculty:** | Raja Rashidul Hasan | **Assignment No:** | **F1** | |
| **Assignment Name:** | **OBE Assignment** | | | |
| **Submission Date:** | **16-09-2020 (Wednesday)** | | | |
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| **ID** | **Student Name** | **Department.** | **Serial No** | |
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***\*\*\* Follow the instructions before doing your assignment***

**Question #** Mr. X & Mrs. Y have purchased a land of 4 Kathas from **SEL Properties Ltd.** which is located at Bashundhara R/A, Dhaka. Now they want to construct a 8 Storied building (**Ground + 7 Floors**) of having 2 units – A & B in each floor. You are asked to design for only A unit flat of having **1400 sq-ft** (approx.) based on the following specifications:

* *2 Bed Room (size: Bed-1 (**master Bed) is 12' x 13’, Bed-2 is 12' x 13')*
* *3 bath (Size: Attached bath of Bed-2 is 4'6'' x 6', bath of Bed-1 is 4'6'' x 6', Common Bath is 5' x 6')*
* *Drawing (Size: 16' x 16')*
* *Dining*
* *Kitchen (Size: 7' x 5')*
* *2 Veranda (Size: Ver\_Bed-1(master Bed) is 5' x 7’, Ver\_Kitchen is 4' x 5')*
* *Door for kitchen / bathroom / veranda - 2', Door for Bed Room - 3' and Main Door 4' (interior to interior)*

**Considering the abovementioned specifications do the following using AutoCAD 2007 Software:**

1. **Draw the** **Civil Plan** of the flatalong with **stair, lift** and **lobby (Space: 8*' x 8'****, which is excluded from the flat size***)**. [\*Hints: Brick to interior/exterior Offset distance = 5*'',* Stair Offset distance = 6*''*]. **10 points**
2. **Draw** the **proper Electric Fittings (applying BNBC) 5 points**
3. **Draw** the **electric conduit layout (Wiring – applying BNBC)** where **Red, Blue & Yellow color** represents **light load, heavy load, SB to SDB** connectionsrespectively. **5 points**
4. **Calculate** the **load** for **Unit A** only. Also **Calculate** the **load** for each **floor** and **load for the building** considering all the flat types are same size and same types of load. **5 points**
5. **Calculate** the **capacity** of the **Generator** based on the load calculation. **Draw** a separate **Generator room** and **show** the connection with distribution board. **5 points**

**Total: 30 points**

(Hints. of V. Consider, each Unit the Load is 10kW. So, the total load of the floor is (2 x 10) =20 kW. Thus, Total load of your Building is (20kW x 7) = 140 kW)

***Submission Instruction:***

* Do the assignment in a Group (Group is assigned in MID). Do not copy from others.
* Take idea from the Sample Design.
* Write your **Name, ID & Serial no** properly on the above Table
* Also, mansion all of your **Serial no** at top left corner of your design window
* Take Screen shot of your final design by indicating all dimensions properly. Hence, make a pdf by attach this top page.
* Submit both **pdf** and **.dwg** file in a zip
* Zip File Name: GR\_00\_OBE\_F1
* Send your Assignment to: [**cadeeecse@gmail.com**](mailto:cadeeecse@gmail.com)

**Subject of your Mail: Group No\_OBE\_Assignment F1**