AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH (AIUB)

Faculty of Engineering

Bachelor of Science in Electrical and Electronic Engineering (EEE)

BAE 2101: Computer Aided Design and Drafting

Experiment # 10: Application of Bangladesh National Building Code (BNBC) – 1993 in civil plan**.**

Objective: The primary objective of this experiment is the practical safeguarding of persons, and of buildings and their contents from electrical hazards. The experiment also constitutes minimum standards for electric wiring and equipment installed within or on public and private buildings and other premises.

Codes:

1) For residential occupancy, the minimal guidelines given in Table 1 shall be used to determine the required number of 15 A switch socket outlets, when actual requirements cannot be ascertained.

Table 1: Minimum Number of 15A Socket Outlets [1]

Location	No. of Switch Socket Outlets
Bedroom	1
Living room	1
Drawing room	1
Dining room	1
Kitchen	2
Bathroom	-
Verandah	1
For refrigerator	1
For air-conditioner	one for each

2) Table 2 gives the recommended areas to be served by different sizes of ceiling fans where the height of fan blades is at 2.5 m above the finished floor level.

Table 2: Recommended Fan Sizes in Rooms [1]

Room Area (m^2)	Fan Sweep
Up to 6	915 mm
Over 6 to 9	1220 mm
Over 9 to 12	1442 mm

3) In estimating the electrical load, the ratings shown in Table 3 shall be taken unless actual values are known or specified.

Table 3: Load Estimates for Different Fittings/Fixtures [1]

Type of Fitting/Fixture	Ratings in Watts
Incandescent lamps	100
Fluorescent lamp with accessories	
- Nominal length 600 mm	20
- Nominal length 1200 mm	40
Ceiling fans and table fans	70
Exhaust and pedestal fans	90
5A socket outlets	200
15A socket outlets	1000

4) Table 4 shows minimum generator room area requirements for different sizes of generators.

Table 4: Area Requirements for Standby Generator Room

Capacity (kW)	Area (m^2)
1 x 25	20
1 x 48	24
1 x 100	30
1 x 150	36
1 x 300	48
1 x 500	56

References:

1. Bangladesh National Building Code (BNBC) – 1993, part 8.