

Bengal Engineering and Science University, Shibpur  
B. Arch. 7<sup>th</sup> Semester Examination, 2012

Subject: Architectural Illumination

Code No. AR 706/2

Full Marks: 35

Time: 2 hours

- (i) Candidates are required to give their answers in their own words.
- (ii) Use graphics and figures wherever necessary.
- (iii) Attempt **any four** questions. All questions carry equal marks. **One mark** is reserved for neatness.

1. What is light? Describe the characteristics of Ultraviolet Light, Infrared Light and Visible Light. Describe the behaviour of light.
  2. What is colour? Describe theories of additive mixing and subtractive mixing of colours. What are the meanings of 'colour rendering of light sources' and 'metamerism of colour surfaces'? What is meant by colour temperature and colour rendering index of a light source?
  3. What is daylighting and daylight harvesting? Present different methods of admitting daylights. Write recommended minimum daylight factors with side lighting only for Dwellings, Offices, Libraries, Assemblies and Concert Halls, Art Galleries and Laboratory rooms of schools and colleges.
  4. Present different characteristics to be considered while choosing light sources. State the points to remember about incandescent and halogen lamps. State the points to remember about fluorescent lamps. Describe the characteristics of other light sources.
  5. What are luminaires? How basic types of luminaires are chosen? Describe the general characteristics of architectural luminaires.
  6. Describe optimally sequential steps to successful lighting design solutions.
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