

M. ARCH. SEM- II (SUSTAINABLE ARCHITECTURE)
(2014 COURSE) (CBCS) : WINTER - 2017
SUBJECT : ENERGY CONSERVATION – II (LUMINOUS ENVIRONMENT)

Day : **Thursday**
Date : **09/11/2017**

Time : **10.00 A.M. TO 12.00 NOON**
Max. Marks : **60**

W-2017-3263

N.B.:

- 1) Attempt **ANY THREE** questions from each section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer books.

SECTION – I

- Q.1** Define the following terms: [10]
a) Direct glare c) Relative Visual Performance e) Specular Reflection
b) Illuminance d) Luminous Efficacy
- Q.2** Write short notes on: [10]
a) Day Light factor
b) LED Lamps and its characteristics.
- Q.3** Describe the following: [10]
a) Types of sky conditions in detail.
b) Factors of visual acuity.
- Q.4** Describe ten energy conserving measures / guidelines to be followed for energy conscious Lighting design. [10]
- Q.5** Describe / discuss problems associated with reflected glare and measures to control reflected glare. [10]

SECTION – II

- Q.6** Define the following terms: [10]
a) Luminaire diffusers d) Lighting control initiation
b) Exit lighting e) Luminaire reflection
c) Light pollution
- Q.7** Write short notes on: [10]
a) Fibre optic lighting diffusers
b) Illumination methods
- Q.8** Describe the following: [10]
a) Explain design aids and calculation of illuminance from a point source.
b) Design considerations for lighting of institutional spaces.
- Q.9** Explain calculation of Horizontal Illuminance by Lumen (flux) method. [10]
- Q.10** Explain lighting design procedure in detail. [10]