M. Arch. Sem-II (Sustainable Architecture) (CBCS 2018 Course) :
SUMMER - 2019
SUBJECT: ENERGY CONSERVATION – II (Luminous Environment)]

Day: Saturday
Date: 04/05/2019

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

S-2019-3749

N.B.:

1) All questions are **COMPULSORY**
2) Figures to the right indicate **FULL** marks.
3) Answers to both the sections should be written in **SEPARATE** answer book.
4) Assume suitable data if necessary.

SECTION- I

Q.1 Define the following: (Any **TWO**) **(10)**

i) Efficiency of a light source
ii) Transmittance and reflectance
iii) Luminous Intensity
iv) Colour Rendering Index

Q.2 Answer in brief: (Any **TWO**): **(10)**

a) ESI and RVP
b) Daylight Factor.
c) Inverse square law.

Q.3 Explain in detail: (Any **ONE**): **(10)**

a) PSALI and Daylighting in enclosed spaces
b) Explain methods of daylight analysis and discuss any one in detail.

SECTION-II

Q.4 Write short notes on any **TWO** of the following: **(10)**

a) Types of diffusers, reflectors and shields
b) Light pollution and its due relevance for artificial lighting of exteriors.
c) Various types of lamps and their applications
d) Sensors and intelligent light systems for artificial lighting

Q.5 Explain in brief any **TWO** of the following: **(10)**

a) Illumination methods and lighting systems with sketches
b) Lighting design procedure. Discuss
c) Fiber optic lighting.

Q.6 Answer the following any **ONE** of the following: **(10)**

a) Explain the design considerations in detail for industrial buildings and how can remote source lighting and types of lamps used in design?
b) Discuss in detail the analysis techniques, daylighting and artificial lighting strategies used at all scales for office building. Discuss strategies for energy conservation through lighting.

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