BACHELOR OF ARCHITECTURE (B.Arch.)

Term-End Examination

ᴏᴏ1ᴇ℥ **June, 2018**

BARE-079 : INTELLIGENT BUILDING SYSTEMS (ELECTIVE – 2)

Time : 3 hours   *Maximum Marks : 70*

Note : *Attempt any* **five** *questions in all. Illustrate your answers with neat sketches wherever possible.*

1. Explain the role of Information and Communication Technology (ICT) in any important large scale construction system during (a) predesign, (b) design, and (c) construction stages.   *14*

2. "Intelligent building (IB) requires 'robust design strategies' as well as advanced technology application." Explain the statement with the help of existing building case studies.   *14*

3. What do you understand by the phrase 'daylight harvesting' ? Discuss intelligent means of daylighting techniques including hybrid system (passive and active together).   *14*

4. (a) What can be the role of intelligent systems in 'efficient space utilization' ?

   (b) How does 'access control' ensure security in any building premise ? *7+7=14*

5. Explain objectives and means of building skin design in IB. Cite relevant examples from different climate zones. *14*

6. How do IBs integrate optimum building operations ? Explain 'sensors and actuators' of IB. *14*

7. Write notes on any *two* of the following : *2×7=14*

   (a) Life Cycle Cost

   (b) Facility Management

   (c) IB and Risk Resiliency

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