Roll No. | | | | | | | | | | | | | **Total No. of Pages : 02**

Total No. of Questions : 08

M.Tech (Civil Engg EL-IV) (2019 Batch) (Sem.–3)

CONSTRUCTION AND MAINTENANCE MANAGEMENT

Subject Code : MTCE-219

M.Code : 74768

Time : 3 Hrs. **Max. Marks : 100**

INSTRUCTION TO CANDIDATES :

1. **Attempt any FIVE questions out of EIGHT questions.**
2. **Each question carries TWENTY marks.**

Q1. (a) Why is rainwater disposal important in buildings? Discuss the provisions of rainwater harvesting as part of building construction.

(b) How is lighting requirement of a building calculated? Explain the specific considerations to be taken for lighting stair cases and corridors.

Q2. Discuss the different types of air conditioning systems which are commonly used in public buildings. Discuss their merits and demerits. Develop a cost comparison in respect of installation, Operation and maintenance.

Q3. (a) Explain the term effective absorption coefficient. Discuss how this information is used for selection of building materials and construction. Explain this consideration, taking example of an auditorium for 500 capacity.

(b) Explain the measures of reduction of noise in buildings.

Q4. (a) "*There is lots of scope in integrating lighting, air-conditioning and acoustics in a building*" list out the options and opportunities.

(b) Calculate the air conducting load for an IT office with 200 employees. (Assume suitable dimensions)

Q5. (a) Discuss the various provisions in buildings for air conditioning plants.

(b) Explain how the choice of building materials made based on air conditioning load using suitable examples.

Q6. (a) Explain the various physical, social and economic factors to be addressed in regional planning.

(b) Explain the use of :

(i) Facade control

(ii) Zoning

Q7. (a) Explain the classification of buildings according to fire load. Also, indicate the classification of materials according to fire.

(b) Explain the typical fire fighting requirements in multistoried building as per NBC.

Q8. Write short notes on :

(a) Noise rating curve

(b) FAR

(c) Reverberation time

(d) Luminous intensity

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.