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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- December, 2018

M.Tech 3rd Semester

COURSE CODE: 10M11CE115

MAX. MARKS: 35

COURSE NAME: Mechanical and Electrical System in Building

COURSE CREDITS: 3

MAX. TIME: Two Hr

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

1. Make a list of different water quality problem and their corrections?
(5)
2. What are the mechanical and thermal properties of insulation. Make a list of different materials used in insulation along with the importance of insulation.
(5)
3. Please answer the following questions:
(6)
 - (a) For house wiring the size of casing and capping generally should be
 - (b) The abrupt bending radius for external protection ranges from to times the diameter.
 - (c) In three phases, four wire bring and The voltage between any two of the phases wires is
 - (d) PVC Insulated wires are held to the walls and ceiling by means of porcelain cleats which are fixed at distance of horizontally and vertically above the walls.
 - (e) Gearless traction elevators can reach speeds of up to 2,000 feet per minute (10 m/s), or even higher.
 - (i) 2,000 feet per minute
 - (ii) 2,100 feet per minute
 - (iii) 2,110 feet per minute
 - (f) Step width in criss-cross will be
 - (i) 500 / 700 / 1000
 - (ii) 500 / 800 / 1500

(iii) 600 / 700 / 1000

(iv) 600 / 800 / 1000

4. Make a list of different factors influencing detector position and members. (4)
5. What do you mean by Titanium dioxide concrete? Explain in detail with advantages and disadvantages. (5)
6. Answer the following questions (2)
 - (i) MOEFA means to
 - (ii) A household smoke detector will typically be mounted in a disk shaped plastic enclosure about in diameter and
7. Explain different types of roof insulation along with their advantages and disadvantages. (3)
8. Explain different types of fire sprinklers system along with their working with the help of net sketches. (5)