



Name :

Roll No. :

Invigilator's Signature :

CS/BHMCT/SEM-5(PART-B)/HM-505/2013

2013

FACILITY PLANNING – I

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following : $10 \times 1 = 10$

- i) Electric fire can be extinguished by
 - a) foam type extinguishers
 - b) dry powder type extinguishers
 - c) water type extinguishers
 - d) soda-acid type extinguishers.

- ii) Algae growth in the swimming pool is encouraged by respective water temperature and pH value as shown
 - a) above 70°F, 6.8
 - b) above 60°F, 5.8
 - c) above 80°F, 7.8
 - d) above 90°F, 8.8.



- iii) For easy condensation of refrigerant vapour within the condenser, an ideal refrigerant should have critical temperature which is
- a) low
 - b) high
 - c) above the surrounding air
 - d) equal to the boiling point of refrigerant.
- iv) Power in single phase *a.c.* is calculated on the basis of
- a) volt \times ampere
 - b) volt \times ampere \times hour
 - c) volt \times ampere \times power factor
 - d) volt \times ampere \times power factor $\times \sqrt{3}$.
- v) Electric utility meters read
- a) current
 - b) volt
 - c) watt
 - d) kWh.
- vi) The unit of luminous flux is
- a) Lux
 - b) Lumen
 - c) Candela
 - d) Phot.
- vii) Calorific value of LPG is
- a) 10882 kcal/kg
 - b) 20800 kcal/kg
 - c) 9122 kcal/kg
 - d) 6252 kcal/kg.



viii) Coal is a

- a) solid fuel
- b) fossil fuel
- c) conventional fuel
- d) all of these.

ix) An electric motor primarily converts

- a) mechanical energy into electrical energy
- b) electrical energy into mechanical energy
- c) thermal energy into electrical energy
- d) electrical energy into sound energy.

x) Luminous efficiency of an electric lamp is expressed in

- a) lux or lumen per sq.m
- b) lumens per watt
- c) kcal per hour
- d) watt per hour.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. Discuss in brief with electronic equipment.
3. State the main considerations of swimming pool maintenance.
4. What are the basic fuels used in hotel ? Discuss briefly.

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5. State the swimming pool regulations to be enforced by the hotel manager.
6. Define direct, semi-direct and defused lighting. State the difference between lamps and luminaries.

GROUP - C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. State and discuss the parameters which determine the quality of water. What are the water conservation techniques in a big hotel ? $7\frac{1}{2} + 7\frac{1}{2}$
8. What are the different types of electric motors used in the industry ? Describe the principle of working of slip-ring induction motor. $5 + 10$
9. What are the conditions of comfort in a building ? Describe the principle of operation of vapour compression system of air-conditioning. $5 + 10$
10. State and discuss the factors and variables for the design of lighting system. State the methods of maintenance of lighting system highlighting the effects of maintenance of light outputs. $7\frac{1}{2} + 7\frac{1}{2}$
11. State and discuss the precautions to be taken for fire prevention in a hotel. Also discuss fire detection techniques to achieve fire safety in a hotel. $7\frac{1}{2} + 7\frac{1}{2}$

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