

NATIONAL COUNCIL FOR HOTEL MANAGEMENT AND CATERING TECHNOLOGY, NOIDA
ACADEMIC YEAR – 2019-2020

COURSE : 1st Semester of 3-year B.Sc. in H&HA
 SUBJECT : Hotel Engineering
 TIME ALLOWED : 03 Hours
 MAX. MARKS: 100

(Marks allotted to each question are given in brackets)

- Q.1. (a) Draw an organizational chart of a maintenance department of a large hotel.
 (b) Mention **five** activities undertaken for preventive maintenance. (5+5=10)

OR

Name fuels used in hotel industry. What are the advantages and disadvantages of solid, liquid and gaseous fuel? (10)

- Q.2. Draw a labeled diagrams of gas burner and describe L.P.G. (5+5=10)

OR

Write a detailed note about different types of lights. (10)

- Q.3. Write about sources and types of water. How would you convert temporary and permanent hard water to soft water? (3+7=10)

OR

Enlist **five** types of refrigerants used. Explain the functioning of window type air conditioner. (4+6=10)

- Q.4. Write short notes on **any two**:
 (a) Cold water cistern swimming pool.
 (b) Central air-conditioning.
 (c) Fire extinguisher
 (d) Sewage treatment (2x5=10)

- Q.5. Explain in brief (**any ten**):
 (a) Air pollution (b) Sullage
 (c) Ignition temperature (d) Class 'C' fire
 (e) Humidification (f) R-717
 (g) Coupling / Union (h) V.I.R.
 (i) M.C.B. (j) H.R.C.
 (k) Closed circuit (l) B.T.U. (10x1=10)

- Q.6. Calculate the electricity bill for the month of September 2019 having the following electric loads:

| | | |
|---------------|---------|--------------|
| 100 W bulbs | 10 Nos. | 6 Hrs. / Day |
| 60 W fans | 10 Nos. | 5 Hrs. / Day |
| 3 KW heater | 05 Nos. | 5 Hrs. / Day |
| 6 KW / boiler | 02 Nos. | 5 Hrs. / Day |

Cost of electricity energy is Rs.4/- per unit. (10)

Q.7. List and explain various audio visual equipment used in hotels. (10)

Q.8. **A** Match the following:

| | | | |
|-----|---------------|-------|-------------------|
| (a) | Solid fuel | (i) | Incandescent lamp |
| (b) | Tungsten | (ii) | Zero potential |
| (c) | Earthing | (iii) | Helium |
| (d) | Yellow colour | (iv) | Air conditioner |
| (e) | Compressor | (v) | Coal |

B State True or False:

- (a) 'EXIT' sign indicates entry door.
- (b) U.P.S. stands for un-interrupted power source.
- (c) The flow of electron is called current.
- (d) The intensity of heat energy is denoted by temperature.
- (e) Class 'D' fire is due to gases.

(5+5=10)

Q.9. Define pollution. Explain different types of pollution.

OR

What is contract maintenance? What are the advantages and dis-advantages? What are the various types of contracts used?

(10)

Q.10. Fill in the blanks:

- (a) _____ is better than cure.
- (b) _____ is a substance that produces useful heat or power when burnt.
- (c) L.P.G. is a mixture of _____ and _____.
- (d) Measurement of light is given in _____.
- (e) _____ is an effect of fuel, heat and oxygen.
- (f) An agreement between two party enforceable by law is _____.
- (g) O.H.P. stands for _____.
- (h) Closed circuit television is a form of _____ equipment.
- (i) The hotel is concerned with the _____ of the guest.
- (j) An equipment replaced due to incapable of meeting the increasing demand is a replacement because of _____.

(10x1=10)
