

ROLL No.....

**NATIONAL COUNCIL FOR HOTEL MANAGEMENT  
AND CATERING TECHNOLOGY, NOIDA  
ACADEMIC YEAR – 2017-2018**

COURSE : 1<sup>st</sup> 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. Establish the importance of maintenance department for the hotel in providing better services to the guests. (10)

Q.2. Explain the importance of **any five** modern day equipment used by hotel for security of guests and property. (10)

Q.3. Describe various methods of distribution of water in a hotel.

**OR**

Calculate the electricity bill of a coffee shop of a five star hotel for September 2017. Cost of electric energy is Rs.5/- per unit:

Device	Electric power	Quantity	Usage (per day)
Bulb	60 watt	50	20 hrs.
Coffee machine	1 kilo watt	1	12 hrs.
Ice maker	3 kilo watt	1	15 hrs.
Toaster	250 watt	2	4 hrs.
Bar blender	500 watt	2	10 hrs.
Air conditioner	2 kilo watt	5	20 hrs.

(10)

Q.4. Write short notes on:  
 (a) Cost plus fixed percentage contract  
 (b) Reasons for replacement of equipment

(5+5=10)

**OR**

Discuss various electrical lighting devices used in hotels, mentioning their advantages and other features.

(10)

Q.5. Define noise pollution. What are the effects of noise pollution? How noise pollution can be controlled in a hotel?

(2+4+4=10)

Q.6. With the help of a neat sketch, explain the Base Exchange Method for the removal of permanent hardness of water.

**OR**

Explain Vapour Compression Refrigeration Cycle.

(10)

Q.7. What do you understand by the term 'Audio Visual Equipment'? List the various audio visual equipment provided to the guest by a hotel. Prepare a maintenance program for any audio visual equipment.

**OR**

Differentiate between Elevator and Escalator. Write a few common reasons for accidents related to elevators. What safety features are included in hotel elevators for the safety of the guest?

(10)

Q.8. What precautions should be observed by a banquet chef while using high pressure gas burners?

(10)

Q.9. Define the following in one or two lines (**any ten**):

- |                |                         |                          |
|----------------|-------------------------|--------------------------|
| (a) PVC        | (b) Insulator           | (c) Class 'B' Fire       |
| (d) Conduction | (e) Rubbish             | (f) Relative humidity    |
| (g) HVAC       | (h) Thermostat          | (i) Ignition temperature |
| (j) Soft water | (k) Routine maintenance |                          |

(10x1=10)

Q.10. Match the following:

- |                       |                 |
|-----------------------|-----------------|
| (a) Sound             | (i) Watt        |
| (b) Fuel              | (ii) Celsius    |
| (c) Energy            | (iii) Ppm       |
| (d) Temperature       | (iv) Lux        |
| (e) Air conditioning  | (v) Btu         |
| (f) Hardness of water | (vi) Decibel    |
| (g) Power             | (vii) Kwh       |
| (h) Electricity       | (viii) Watt/sec |
| (i) Illumination      | (ix) Kcal       |
| (j) Heat              | (x) Kcal/kg     |

(10x1=10)

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