

ROLL No.....

NATIONAL COUNCIL FOR HOTEL MANAGEMENT
AND CATERING TECHNOLOGY, NOIDA
ACADEMIC YEAR – 2014-2015

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) Mention **ten** important duties and responsibilities of Chief Engineer of a hotel.
(b) Describe briefly the complaint register-cum-work order system of fault rectification.
- (5+5=10)

- Q.2. Calculate the amount of electricity bill for the month of April 2013 for the following electric load, if the cost of electric energy is `3/- per kilowatt hour.

100 W electric lamps	80 Nos.	6 hrs./day
1.5 KW electric heater	2 Nos.	8 hrs./day
3 KW air conditioner	8 Nos.	8 hrs./day
5 KW boiler	1 No.	6 hrs./day

(10)

OR

- (a) Discuss the role of fuse in a circuit.
(b) Discuss why earthing is important for an electrical appliance?

(5+5=10)

- Q.3. State two scientific principles used in refrigeration. With the help of a neat sketch, explain the vapour compression cycle of refrigeration.

OR

Describe the installation, commissioning, proper use and care of an air-conditioner.

(10)

- Q.4. (a) Mention **ten steps** that should be taken to make a hotel more fire-safe.
(b) Classify different fires. Prepare a table showing different extinguishers used for different types of fire.

(5+5=10)

- Q.5. Discuss the types of hardness of water. State the disadvantages of using hard water in hotels.

- (5+5=10)
- Q.6. Discuss different types of pollution related to a hotel. (10)
- Q.7. Write short notes (**any two**):
- Precautions for installation of gas bank.
 - Discuss types of fuels used in catering industry.
 - Preventive measures for slips & falls.
 - Necessity for contract maintenance.
- (2x5=10)
- Q.8. Explain in brief (**any five**):
- | | |
|------------------------------|-----------------------------|
| (a) B.T.U. | (b) Open circuit |
| (c) Methods of heat transfer | (d) Fluorescent lamp |
| (e) Solid & liquid waste | (f) Automatic fire detector |
| (g) Group replacement | |
- (5x2=10)
- Q.9. **A** Choose the appropriate option:
- Measurement of light is given in:
 - Joules
 - Volts
 - Lumens
 - Ampere
 - In chilled water air conditioning applications, the temperature of chilled water is maintained at:
 - 0°C
 - 7-20°C
 - 15°C
 - 5-5°C
 - Paying money one time to repair 10 faulty water taps is a:
 - Lumpsum contract
 - Annual contract
 - Monthly contract
 - Cost plus contract
 - Heat is absorbed by a refrigerator during refrigeration cycle in:
 - Condenser
 - Compressor
 - Evaporator
 - Throttle valve
 - In India the single phase voltage for domestic supply is:
 - 220-240 Volt
 - 110-130 Volt
 - 380-415 Volt
 - 415-460 Volt
- B** Explain:
- | | |
|------------------------------|-----------------------------|
| (a) AC and DC | (b) Calorific value of fuel |
| (c) One ton of refrigeration | (d) Preventive maintenance |
| (e) MCB | |
- (5+5=10)
- Q.10. List and explain use of security equipment in hotel industry. (10)
- OR**
- Explain the reason under which equipment are replaced. (10)
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