Q.1. (a) Draw an organizational chart of a maintenance department of a large hotel.
(b) Mention five activities undertaken for preventive maintenance. 

OR

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

Q.2. Draw a labeled diagrams of gas burner and describe L.P.G. 

OR

Write a detailed note about different types of lights. 

Q.3. Write about sources and types of water. How would you convert temporary and permanent hard water to soft water?

OR

Enlist five types of refrigerants used. Explain the functioning of window type air conditioner.

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

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.

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

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
<th>Hours / Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 W bulbs</td>
<td>10 Nos.</td>
<td>6 Hrs. / Day</td>
</tr>
<tr>
<td>60 W fans</td>
<td>10 Nos.</td>
<td>5 Hrs. / Day</td>
</tr>
<tr>
<td>3 KW heater</td>
<td>05 Nos.</td>
<td>5 Hrs. / Day</td>
</tr>
<tr>
<td>6 KW / boiler</td>
<td>02 Nos.</td>
<td>5 Hrs. / Day</td>
</tr>
</tbody>
</table>

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

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