Q.1. Determine the various Material Handling Equipment with specification and brands used in hotels and restaurants.  

OR  

As a Manager of F&B Service Department, determine the various Quality Control techniques that can be implemented in F&B Service department.  

(10)

Q.2. Distinguish between the following (any two):  
(a) Planned maintenance and Routine maintenance  
(b) EOQ and ABC Analysis  
(c) Routing and Scheduling  

(2x5=10)

Q.3. Explain the Packaging & Distribution techniques adopted by Home Delivery food outlets/QSRs.  

(10)

Q.4. What do you understand by Logistics Management? Discuss in detail the various types of Logistics.  

OR  

Explain the Purchase procedure adopted in any super market or garment manufacturing company.  

(10)

Q.5. Write short notes on any two:  
(a) Ergonomics  
(b) ABC analysis  
(c) Predictive Maintenance  

(2x5=10)

Q.6. Explain the various Waste management techniques adopted by Cruises during their commercial trips.  

(10)
Q.7. A Choose the right answer:
(I) Value Analysis was developed by:
(a) General Electric (b) Honda Motors
(c) General Motor (d) Toyota Motor Co.

(II) Method oriented system of material handling:
(a) Transferring system (b) Fork Lift Truck
(c) Bulk Handling System (d) Mass Production System

(III) Process of organising production line to produce products in time and with effective resource utilization:
(a) Expediting (b) Sequencing
(c) Scheduling (d) Routing

(IV) The sum total features of a product which influences its ability to satisfy a given demand:
(a) Quantity (b) Quality
(c) Performance (d) Productivity

(V) JIT concept was given by:
(a) Ford Motors (b) Toyota Motors
(c) Honda Motors (d) General Motors

B Match the following:

<table>
<thead>
<tr>
<th>(i) Method study</th>
<th>(a) An approach to prevent the defects rather than detecting the defects.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ii) Value of a product or service</td>
<td>(a) Maintenance used to predict anticipated failure of machines and equipment.</td>
</tr>
<tr>
<td>(iii) Quality control</td>
<td>(b) Time taken to convert raw materials into finished goods.</td>
</tr>
<tr>
<td>(iv) Preventive maintenance</td>
<td>(c) Aims to eliminate wasteful and inefficient motions.</td>
</tr>
<tr>
<td>(v) Lead Time</td>
<td>(d) The ratio between a function for customer satisfaction and the cost of that function.</td>
</tr>
<tr>
<td></td>
<td>(e) Maintenance activity undertaken before the machine or equipment fails.</td>
</tr>
</tbody>
</table>

(5+5=10)
Q.8. Mahindra Ltd. has kept records of breakdown of its machines for 300 days work in a year as shown below:

<table>
<thead>
<tr>
<th>No. of Break Downs</th>
<th>Frequency (in days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>1</td>
<td>150</td>
</tr>
<tr>
<td>2</td>
<td>70</td>
</tr>
<tr>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
</tr>
</tbody>
</table>

The company has estimated that each breakdown costs Rs.650/- and is considering adopting a preventive maintenance program which would cost Rs.200/- per day and limit the number of breakdown to average of one per day. Calculate the expected annual savings from preventive maintenance program.

OR

Discuss the concept of JIT along with the various categories of waste associated to it. (10)

Q.9. Explain the following in two lines (any five):

(a) Kanban
(b) Objectives of material handling
(c) Normal time
(d) Treatment of waste in cost accounts
(e) Breakdown maintenance
(f) Motion study
(g) Break-even point

(5x2=10)

Q.10. An electric part supplier sells electronic parts to a computer manufacturer. The annual demands of the parts are approximately 1400 units. The supplier pays Rs.30/- for each part and estimates the annual holding cost as 30% of parts value. It cost approximately Rs.250/- to place an order. Calculate EOQ.

OR

Discuss the concept of Time Study and Motion Study. Determine its importance with respect to service industry. (10)