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**Name: Sayed Abaseen   
ID: 12534**

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**Submitted to: Dr. Liaqat Ali**

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**IQRA NATIONAL UNIVERSITY, KPK, PESHAWAR, PAKISTAN**

***Question No.1 10***

**Answer:**

**Q1) d) Action plan to achieve the mission**

**Q2) e) all of the above**

**Q3) b) Mission**

**Q4) d) Labor standards vary depending on customer requirements**

**Q5) d) A restaurant**

**Q6) c) Maturity**

**Q7) c) Maturity**

**Q8) d) Decline**

**Q9) c) Well defined missions make strategy development much easier.**

**Q10) c) multi-factor productivity**

***Question No.2 10***

**What is the facilities layout? Explain the basic types of layout. What are the characteristics of product layout?**

**What is the facilities layout?**

**Answer:**  plant layout also known as layout of facility.

It refers to the combine of departments, work center, and equipment and machinery with focus on the flow of materials or work through the production system.

It means planning for location of all machines , equipments, utilities, work station, customer services, areas material, storage areas, , tool servicing area, tool cribs ,aisles, rest room, lunch rooms, coffee/tea boys, offices and computer rooms and also planning for the patterns of flow of materials and people around, into and within the building

**Explain the basic types of layout?**

**Answer:**

1. **Product/Service layout**

A product layout involves the arrangement of machines in one line depending on sequence of operation. Materials are fed into first machine and finished product come out of the last machine.

1. **Process layout**

Process layout also called the functional layout .this layout is basically for the job lot manufacture or batch product also the grouping together of like machines in one department. Or machines performing similar function are kept in one department

1. **Fixed Position layout**

Used when the product is too large or cumbersome to move through the various processing steps; consequently, rather than take the product to the process, the processes are brought to the products. Example shipbuilding, aircraft

1. **Hybrid/Combination.**

A combination of process and product layout is known as combine layout or Hybrid layout.

Manufacturing concerns where several products are produced in repeated numbers without the likelihood of continuous production.

***Question No.3 10***

**Defined:**

1. **Competitiveness, Strategy and Productivity**
2. **How Organizations can gain Competitive Advantage**
3. **Competitiveness, Strategy and Productivity?**

* **Competitiveness:** Possession of a strong desire to be more successful than others
* **Strategy:** A plan of action designed to achieve a long-term or overall aim
* **Productivity:** The effectiveness of productive effort, especially in industry, as measured in terms of the rate of output per unit of input.

1. **How Organizations can gain Competitive Advantage?**

Organization can gain competitive advantages by look at the organization terms and value of three functions.

1. Marketing

2. Finance

3. Operation

Competitive advantages by marketing base strategy:

Organization identifies the customer’s needs and wants and their demands. By having good pricing strategy organization can attract more customers toward it self.

Have good skill and idea about advertising and promotion and making good image of the organization in market is also one of the reasons of gaining competitive advantages.

Competitive advantages by finance base strategy:

A company should identify how to and where to us their money.

And company should acquisition of long term assets which profit more than one time periods.

An organization should also know their equity and debt and identify capital structure.

Competitive advantages by operation base strategy:

The company should make proper goods and services design by creating of that product and service make favorable to customers.

Organizations kept their price low and make it as economical

The quality should be related to the price and services.

An organization should always be an active in any situation and make a quick response to any problem.

An organization should be flexible with the changes of situation and environment organization should change itself as well.

Organization should keep controlling on the stock and also maintain the production process and focus on the supply chain management that how to deliver their product from factory to market for sale.

And organization should always keep in mind that the customers issue is that organization issue

***Question No.4 10***

1. **Explain what is a Flexible Manufacturing System?**

A flexible manufacturing system (FMS) is a manufacturing system that contains enough flexibility to allow the system to rapidly react to production changes.

This flexibility is generally considered to fall into two categories. The first is machine flexibility. This allows the system to be changed to produce new product types and to change the order of operations executed on a part. The second is routing flexibility. This consists of the ability to use multiple machines to perform the same operation on a part as well as the system's ability to absorb large-scale changes, such as in volume, capacity, or capability.

1. **Discuss FMS Applications and Benefits?**

**Benefits:**

* Achieving a highly automated manufacturing process with rigorous computerized monitoring and management of quality and productivity.
* Making manufacturing operations readily scalable for different levels of output. Allowing customization and reconfiguration of manufacturing processes with minimal downtime and cost.
* Providing management with detailed and timely information about the manufacturing process.
* Enabling manufacturers to coordinate their work processes with those of their suppliers and customers to maximize efficiency and minimize costs.
* Increased machine utilization.
* Fewer machines required.
* Reduction in factory floor space required.
* Greater responsiveness to change.
* Reduced inventory requirements.
* Lower manufacturing lead times.
* Reduced direct labor requirements and higher labor productivity.
* Opportunity for unattended production.

**FMS Applications**

* Testing,
* Inspection
* Surface treatment
* Joining-welding (arc , spot), glueing
* Assembly
* Metal forming
* Metal-cutting machining

**Question No.5 10**

***What is* Decision Process? Explain the important steps required for decision making process? On what aims the management is interested that the Operations Manager should be focused**?

Answer:

***What is* Decision making Process?**

Decision-making process is an integral part of modern management. Essentially, Rational or sound decision making is taken as primary function of management. Decisions play important roles as they determine both organizational and managerial activities. A decision can be defined as a course of action purposely chosen from a set of alternatives to achieve organizational or managerial objectives or goals. Decision making process is continuous and indispensable component of managing any organization r business activities. Decisions are made to sustain the activities of all business activities and organizational functioning.

**Explain the important steps required for decision making process?**

**Answer:**

1. **Specify Objectives and the Criteria for decision making:**

Decision maker should Establish Overall Objectives and Goals. And define the decision criteria so that there is a clear understanding of the criteria used and what metrics will be used to measure the criteria.

1. **Develop Alternatives:**

Develop Alternatives Overview Build alternatives were developed on the basis of technical analysis, environmental constraints, and stakeholder input, with the focus on developing consensus on a Preferred Alternative that addresses the identified issues and meets the purpose of and need for the project.

1. **Analyze and compare alternatives.**

The process of analyzing and evaluating alternatives applies evaluation criteria to alternatives or options in a way that facilitates decision making. This may be a one-step or multi-step process, depending on the complexity of the alternatives and the decision. The evaluation process may include refining alternatives to develop the final alternative or option. A critical element in this step is the evaluation of all ideas using all previously established criteria.

1. **Select the best alternative.**

A systematic and efficient approach towards material selection is necessary in order to select the best alternative for a given engineering application.

1. **Implement the chosen Alternative**

After an alternative has been selected, the manager must put it into effect. In some decision situations, implementation is fairly easy; it is more difficult. In the case of an acquisition, for example , manager must decide how to integrate all the activities of the new business, including purchasing, human resource practices , and distribution, into an ongoing organization framework

1. **Monitor the results to ensure the desired results are achieved.**

Monitoring is simply the process of checking what has been done or spent in line with plans and budgets.

Organization monitors their activities and income and expenditure to ensure that they are operating in line with their plans and to ensure they are delivering their organizational purposes.

**On what aims the management is interested that the Operations Manager should be focused**?

Answer:

**1. Costs should decrease and Profits should increase**

**2. Return on Investment should increase along with increase in Productivity.**

**3. Risk should decrease along with increase in Company image.**

**4. Demand should increase for the product or service.**

**5. Monitor the results to ensure the desired results are achieved.**