

[Time: 03.00 Hrs]		[Marks:75]
Please check whether you have got the right question paper.		
N.B:	<ol style="list-style-type: none"> 1. Q.1 is compulsory and carries 20 Marks. 2. Q. 8 is compulsory and carries 15 Marks. 3. Attempt any four questions from Q.2, Q.3, Q.4, Q.5, Q6 and Q7. Each of these questions carry 10 Marks. 4. Figures to the right indicate full marks. 	

Q.1	(A)	<p>Select the correct option for the following statements/questions:</p> <ol style="list-style-type: none"> 1. The network created amongst different companies producing, handling and/or distributing a specific product is called _____. (a) Logistics (b) Supply Chain (c) Supply Chain Management 2. _____ is concerned with existing products. (a) Value Analysis (b) Value Engineering (c) Value Chain) 3. The _____ principle of the ISO 9001 Standard will help you promote a process-driven culture across your organisation. (a) Plan Do Cross Act (b) Plan Divide Check Act (c) Plan Do Check Act 4. _____ is the performance of the product as per the commitment made by the producer to the consumer. (a) Quantity (b) Quality (c) Specification 5. The start of MTM application may be put around the year _____. (a) 1948 (b) 1958 (c) 1968 6. _____ concerns itself with better ways of doing things and control over the output of those things by setting standards with respect to time. 	(10)
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- (a) Time Study
(b) Method Study
(c) Work Study
7. _____ is a technique for determining the quantity and timing dependent demand items.
(a) MRP
(b) MRR
(c) MRS
8. _____ is the process of planning the quantity and timing of output over the intermediate range (often 3 to 18 months) by adjusting the production rate, employment, inventory, and other controllable variables.
(a) Aggregate Planning
(b) Aggregate Scheduling
(c) Aggregate Mastering
9. In ABC analysis, C represents the item of _____ Value.
(a) High
(b) Medium
(c) Low
10. A _____ includes all the value-added physical and intangible activities that a service organization provides to the customer.
(a) service package
(b) service customization
(c) service center

(B)**State whether True or False:**

1. Operational decisions involve making schedule changes to production, purchasing agreements with suppliers, taking orders from customers and moving products in the warehouse.
2. CDS (Campbell, Dudek and Smith) heuristic is one such heuristic used for flow shop scheduling.
3. The means of improving ways and means of doing things is called Method Study.
4. ISO 9000 was first published back in 1987.

(10)

	<p>5. Capacity Requirements Planning (CRP) is the process of determining what personnel and equipment capacities (times) are needed to meet the production objectives embodied in the master schedule and the material requirements plan.</p> <p>6. Selection of plant location and facility location is long term capital decision.</p> <p>7. Buffer stock (BS) = Average demand \times Average lead time</p> <p>8. In the make-to-order and engineer-to-order environments, the customer order decoupling point could be in either raw materials at the manufacturing site or possibly even with the supplier inventory.</p> <p>9. Assembly lines are a special case of product layout.</p> <p>10. A WorkCentre layout, sometimes referred to as a job shop, is where similar equipment or functions are grouped together, such as all drilling machines in one area and all stamping machines in another.</p>	
Q.2	<p>Answer any TWO of the following:</p> <p>(a) Discuss the scope of Operations Management.</p> <p>(b) Explain in detail Assembly line.</p> <p>(c) Explain the Specific Locational factors affecting Plant Layout.</p>	(10)
Q.3	<p>Answer any TWO of the following:</p> <p>(a) What is Weighted Factor Rating Method? Explain with an instance.</p> <p>(b) Explain the physical facilities required in an organization/factory.</p> <p>(c) Write a note on Fixed Position Layout.</p>	(10)
Q.4	<p>Answer any TWO of the following:</p>	(10)

	<p>(a) What are the benefits of inventory control?</p> <p>(b) Explain the Discount Policy or Price Break Model.</p> <p>(c) Given: F = Fixed Cost = Rs. 1000, V = Variable cost = Rs. 2 per unit and P = Selling price = Rs. 4 per unit, Find the break-even point in Rs. and in units.</p>	
Q.5	<p>Answer any TWO of the following:</p> <p>(a) How does master scheduling differ under manufacturing strategies of (i) make-to-stock, (ii) assemble-to-order, and (iii) make-to-order?</p> <p>(b) Write a note on Loading.</p> <p>(c) Explain the Earliest Due Date (EDD) Rule.</p>	(10)
Q.6	<p>Answer any TWO of the following:</p> <p>(a) Explain the four Stages in the Development of Service Operations Management.</p> <p>(b) Discuss the impact of growth of service sector on India.</p> <p>(c) What is a Pull v/s Push supply chain? Explain with one example.</p>	(10)
Q.7	<p>Answer any TWO of the following:</p> <p>(a) Explain the Merits and Demerits of Methods Time Measurement (MTM).</p> <p>(b) Explain the Seven Quality Management Principles in detail.</p> <p>(c) Explain the steps in value analysis.</p>	(10)
Q.8	<p>Answer any THREE of the following:</p> <p>(a) Let us assume that a new medical facility, Health-care, is to be located in Delhi. The location factors, factor rating and scores for two potential sites are shown in the following table. Which is the best location based on factor rating method?</p>	(15)

Sr.no	Location Factor	Factor Rating	Rating of Location 1	Rating of Location 2
1	Facility Location	8	3	5
2	Total patient per month	5	4	3
3	Average time per emergency trip	6	4	5
4	Land and construction costs	3	1	2
5	Employee preferences	5	5	3

(b) The design capacity for engine repair in our company is 80 trucks per day. The effective capacity is 40 engines per day and the actual output is 36 engines per day. Calculate the utilization and efficiency of the operation. If the efficiency for next month is expected to be 82%, what is the expected output?

(c) An oil engine manufacturer purchases lubricants at the rate of Rs. 42 per piece from a vendor. The requirements of these lubricants are 1800 per year. What should be the ordering quantity per order, if the cost per placement of an order is Rs. 16 and inventory carrying charges per rupee per year is 20 paise.

(d) Explain the different types of layouts.