(Please write your Exam Roll No.) *Exam Roll No.* 40380307917

END TERM EXAMINATION

SECOND SEMESTER [MBA] MAY- 2018

Paper Code: MS 110	***Subject: Operations Management***
Time : 3 Hours	***Maximum Marks :75***

Note: Attempt six questions including Q no.1 which is compulsory

Q1. a) Briefly discuss the current trends in the field of Operations Management and associated challenges operations managers are facing. **(5)**

b) Mass customization requires sophisticated operational capabilities. Elucidate referring to the challenges involved and how they are addressed. **(5)**

c) Discuss the three common occurrences-local optimization, incentives and large lots- and their effect on supply chain performance. **(5)**

d) Give a summary of contributions made by Philip B. Crosby to the field of quality management and discuss the insight one can gain from his philosophy. **(5)**

e) MRP uses backward scheduling where as synchronous manufacturing approach uses forward scheduling. Explain. **(5)**

Q2. A Firm that pursues differentiation strategy for gaining competitive advantage implements an operations strategy distinct from a firm which pursues cost leadership strategy. Analyse the statement with the help of real business examples. **(10)**

Q3. Just-in-Time (JIT) is an approach of continuous and forced problem solving with focus on throughout and reduced inventory. Elucidate emphasizing various JIT techniques applied by organizations implementing JIT approach. **(10)**

Q4. a) Given below are details w.r.t. the time for completion of each of the tasks involved in producing a product whose demand is 4800 units per week comprising 40 hours.

Task	**A**	**B**	**C**	**D**	**E**	**F**
Performance Time (Sec)	20	30	15	15	10	30
Preceding tasks	-	A	A	A	B,C	D,E

i) Draw precedence diagram

ii) Assign tasks to work stations

iii) Find

a) Cycle time

b) Minimum no. of workstations (theoretical)

c) Efficiency of assembly line:

d) Change in efficiency if number of work stations is increased by one. **(5)**

P.T.O.

b) A work study analyst has observed the time taken for performing a task and his observations are as given below:

Observation No.	1	2	3	4	5	6	7	8	9	10
Time recorded (Min)	1.7	1.6	1.4	1.5	1.4	1.6	1.5	1.7	1.2	1.4

The average is proposed as standard time. But the Workers Union objected to the standard on the ground that the number of observations are inadequate considering their expectations of accuracy of standard consistent with 99% (Z=2.58) confidence level and tolerance within the range of 3% of true value. Do you think the workers objection is valid? If so, how many more observations are needed? In case the union agrees for standard time at 95% (Z=1.96) level of confidence and 5% tolerance, how many observations would be needed? **(5)**

Q5. a) An insurance company has engaged employees for processing thousands of claims it receives. During a particular period comprising 10 days it is observed that the number of claims with defects out of 300 claims randomly checked each day are as under:

Day	1	2	3	4	5	6	7	8	9	10
Forms with defects	10	8	9	13	7	7	6	11	12	8

From the above data, check whether the process is within control or not at a confidence level of 95% (Z=1.96) with the help of appropriate control chart. **(6)**

b) Write a note on national level quality awards established in India. **(4)**

Q6. Explain Generic Product development process and discuss the role of various functional departments viz Marketing, Finance, Design and Manufacturing during each of the phases of product development. **(10)**

Q7. a) Basic Economic Order Quantity (EOQ) model is based on assumptions different from the Production Order Quality model. Explain. **(6)**

b) From the data given below find the production order quantity. **(4)**
Annual Demand (D)= 1000 Units
Set up costs (S)= Rs. 10/-
Holding costs (H) = 0.50 PS per unit per year
Production rate (p)= 8 units per day
Demand rate (d)= 4 units per day

Q8 Write a brief note on the following:- **(2.5x4=10)**
(a) Fordism
(b) Group Technology
(c) Capacity Strategies
(d) Cost of Quality

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