Seat No.:

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

MBA (AM) – SEMESTER – 8 EXAMINATIONS – WINTER 2018

Subject Code: 4180503 Date: 27/11/2018

**Subject Name: Operations Management** 

Time: 02:30 PM to 05:30 PM Total Marks: 70

**Instructions:** 

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.
- Q.1 (a) Identify different types of inspection and discuss their role in the Quality assurance and Control Process. What is the relationship between inspection and acceptance sampling?
  - (b) What do you understand by Quality? Discuss various quality dimensions for a Company that manufacture mobile handset.
- Q.2 (a) What is production, planning and control? Explain its objectives and functions of in detail.
  - Draw the network find Critical Path and calculate EST,EFT,LST,LFT and Slack **(b)** 07 timing available Activity 1-2 1-6 2-3 2-4 3-5 4-5 6-7 5-8 7-8 5 3 Time (Days) 6 13 4 11 6 11 15 OR
  - (b) The following is a schedule showing operation time for four jobs (A,B,C and D) 07 on two machines (M-1 and M-2)

Jobs	Operation time on M-1	Operation time on M-2
A	3	2
В	6	8
C	5	6
D	7	4

Assign four jobs on two machines by using Johnson's rule so as to minimize the total flow time.

- Q.3 (a) Explain Principles of material handling and list down material handling 07 equipments
  - (b) Nirman company is into the manufacturing of papers bags. The annual demand for paper is 8000 kgs. The ordering cost is 50Rs. The per k.g. carrying cost of paper is 0.20 Rs. The store remains open for 365 days a year. The price of paper is 30Rs. Per k.g.
    - 1. Find EOQ
    - 2. Calculate Total cost
    - 3. Find total number of orders to be placed during the year
    - 4. Whether the following discount offer should be accepted?

Quantity Price 2500+ 28

5. If it takes 5 days to receive the order, Find Re-order point

OR

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Q.3	(a)	Oriental Bank has a single automated teller machine (ATM) located in a	07
	( )	shopping mall. Data were collected during a period of peak usage on Saturday afternoon, and it was found that the average time between customer arrivals is	
		2.5 mins with a standard deviation of 0.8 mins. It also was found that it takes an average of 1.9 mins for a customer to complete a transaction with a standard deviation of 2 mins. Approximately how long will customers need to wait in	
		line during the peak usage period?	
	<b>(b)</b>	Explain the Factors affecting Facility Location Planning.	07
Q.4	(a)	Define production & operations management and explain functions/Activities of operations management.	07
	<b>(b)</b>	How does intermittent manufacturing differ from continuous manufacturing?  OR	07
Q.4	(a)	How products differ from services? Explain the transformation process in detail with suitable example.	07
	<b>(b)</b>	Explain batch production and mass production along with its advantages and disadvantages. Suggest suitable method of production for below categories and why?  1. Automobile  2. Computers	07
Q.5	(a)	Explain the history of operations management and how it has evolved to the present state.	07
	<b>(b)</b>	What is meant by aggregate production planning? Why it is required?  OR	07
Q.5	(a)	What do you understand by Operations Scheduling? What are the problems faced in the absence of proper scheduling?	07
	(b)		07

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