

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MBA (PM) – SEMESTER – 10 - EXAMINATION – SUMMER - 2017**

**Subject Code: 4310202****Date: 10/05/2017****Subject Name: Production Management****Time: 10.30 am to 01.30 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)** What do you mean by ‘Production Management’? Explain the history of Production management and how it has evolved to the present state. **07**

**(b)** Write a note on : Bench Marking **07**

**Q.2 (a)** Define the various types of plant layout in brief with suitable examples of each. **07**

**(b)** Discuss what Kanban is and how it operates? **07**

**OR**

**(b)** What do you mean by job sequencing? Explain any 5 methods of job sequencing with examples. **07**

**Q.3 (a)** What do you mean by “Kaizen”? What are the key features of Kaizen? **07**

**(b)** What do you mean by six-sigma? Explain the various analytical tools associated with six-sigma. **07**

**OR**

**Q.3 (a)** What is inventory and inventory management? Discuss any two inventory management techniques. **07**

**(b)** What do we mean by the term ‘JIT’? Explain the concept. **07**

**Q.4 (a)** Determine the optimal sequence of performing 5 jobs on 4 machines and total processing time. The machining of each job is required in the order ABCD and the process timings in hours are as follows: **07**

Job	Machine			
	A	B	C	D
1	8	3	4	7
2	9	2	5	5
3	6	4	5	8
4	12	5	1	9
5	7	1	2	3

**(b)** What are the benefits of ISO certification? What do you understand when a company claims that it has ISO 14000 certification? **07**

**OR**

**Q.4 (a)** Draw the network and calculate EST,EFT,LST,LFT and Slack timing Available **07**

Activity	Time (Days)
1-2	6
1-6	5
2-3	13
2-4	4
3-5	11
4-5	6
6-7	11
5-8	3
7-8	15

(b) What is Outsourcing? Why company outsource? **07**

**Q.5** (a) A Pizza Delivery Service is considering locating its business in your city. Enlist the factors which this service should take into consideration while locating in your city. **07**

(b) Take any service sector of your choice. When you visit for this service what are the dimensions based on which you will judge overall service quality? If you are appointed as an operations manager, how will you creatively design or innovate the service to improve the quality? **07**

**OR**

**Q.5** (a) Crash the network to the minimum time possible **07**

Activity	Activity Time (Weeks)		Activity Cost (Rs)	
	Normal	Crash	Normal	Crash
1-2	30	18	2000	2480
1-3	24	17	1700	2190
1-4	44	40	2200	2400
2-4	20	16	1500	1820
3-4	21	15	1550	1730

(b) A company is having processing quota of 60 items per 6 hours a day. Using the following details calculate the following **07**

1. Desired cycle time
2. Number of work stations
3. Balance the line

Element	Precedence	Performance time(in Minutes)
A	-	4
B	A	6
C	B	3
D	A	2
E	C,D	3
F	E	6

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