

Code No: 26

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MBA-II Semester Regular Examinations July 2010****PRODUCTION AND OPERATIONS MANAGEMENT****Time: 3hours****Max.Marks:60**

**Answer any Five questions**  
**All questions carry equal Marks**

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1. a) What are the objectives of production management. Discuss.  
 b) Write the history of operations management.
2. How does design for manufacturability work? How are DFM and value Engineering different? Explain with examples.
3. Why is location a strategic decision? What are the factors that affect the choice of locations? Which of those factors can be measured using objective measurements and which cannot? Describe and explain your answer.
4. Name the important factors that influence choice of strategy in aggregate planning. Are these options also applicable to service organization? What special difficulties do services pose for aggregate planning?
5. The precedence relationship for the operations in an assembly line is as follows:
 

Task	A	B	C	D	E	F	G	H	I	J	K
Immediate Predecessors or	--	--	A	B	A	C,E	C,D	F,G	C,E	H,I	J
Time (min)	4	3	2	3	6	1	6	2	1	1	5

Balance the line if the cycle time is 9 min.
6. a) What is the purpose of work measurement? What are the uses of work measurement?  
 b) Write about human factors in the application of work study? What are the applications of work study?
7. a) Why range method is preferred for process capability study?  
 b) What is OC curve? Explain its characteristics.
8. The normal and crash times and direct costs for the activities of a project are shown below:

**Cont....2**

Activity	Time (weeks)		Cost (Rs.)	
	Normal	Crash	Normal	Crash
1-2	5	2	6000	9000
2-4	6	3	7000	10000
1-3	4	2	1000	2000
3-4	7	4	4000	58000
4-7	9	5	6000	9200
3-5	12	3	16000	19600
4-6	10	6	15000	18000
6-7	7	4	4000	4900
7-9	6	4	3000	4200
5-9	12	7	4000	8500

- i) Draw the network diagram.
- ii) Determine all normal critical paths.
- iii) Find the minimum cost project schedule if the indirect costs are Rs.1000/- per week.

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