CLASS: M.Tech   SEMESTER: II
BRANCH: AMS   SESSION: SP/19

SUBJECT: PE513 MANUFACTURING SYSTEM DESIGN

TIME: 3 Hours   FULL MARKS: 50

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

Q.1(a)	Define Manufacturing system and Discuss characteristics features of Job, Batch and Mass production systems with examples.	[5]
Q.1(b)	An Automobile company have production capacity quarterly 600 unit. The cost incurred in this period is 47.7 Cr. (Exd. Maintenance). In this period due to maintenance plant shut down for a five working day and costed around 2.3 Crore. A quarter have at least 75 working day and all working day have standard working hours. Find the plant maintenance productivity and down time index. Assume welding operation perform for 480 Hr. Calculate its utilization for above stated condition.	[5]
Q.2(a)	Write the different types of tool in performance measurement with an example.	[5]
Q.2(b)	Discuss the design process of a manufacturing system with a case study.	[5]
Q.3(a)	Explain any one Optimization technique applied in Manufacturing system.	[5]
Q.3(b)	Discuss Parts Oriented Production Information System with a flowchart.	[5]
Q.4(a)	With a suitable example explained Miltenburg's manufacturing system.	[5]
Q.4(b)	Explain the element of system redesign with a block diagram.	[5]
Q.5(a)	What is the role of artificial intelligence in manufacturing automation?	[5]
Q.5(b)	Explain the significance of manufacturing system in industrial application.	[5]

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