BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: MBA   SEMESTER : IV
BRANCH: MANAGEMENT   SESSION : SP/2022

SUBJECT: MT559 MANUFACTURING PLANNING AND CONTROL
TIME: 2 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 Flexible Manufacturing Systems (FMS). State its potential benefits.   (2+3)

b. Discuss with an example to show how flexibility has been operationalizing into different levels in any manufacturing system.   (5)

Q. 2
a. Define Planning. Why strategy for proper Planning is required in any facility operation.   (5)

b. Take any real-life example to explain the fundamental difference between "manufacturing to stock versus manufacture to order".   (5)

Q.3
a. Define Just-in-Time (JIT). Highlight any situation to show JIT concepts to be used.   (2+3)

b. Highlight the demerits of MRP-I and how we have overcome these demerits by introducing/developing MRP-II.   (5)

Q.4
a. Define the Sequencing problem. Discuss the fundamental assumptions to perform the sequencing problem.
                                                                                              (2+3)
b. A printer has one printing press, one binding machine and a manuscript of 6 books for publication. The duration required (in days) for printing and binding the books is given below:

Book	1	2	3	4	5	6
Printing time (days)	30	120	50	20	90	110
Binding time (days)	80	100	90	60	30	10

        -In what order should the books be selected to minimize the total duration to publish all the books?
        How much time will the printing and binding of all the books be completed?   (5)

Q.5 Discuss the following (*any Two*)   (2x5=10)
    a. Strategic Planning for Facility Location
    b. Kanban Approach
    c. Computer Integrated Manufacturing
    d. Sequencing problem and its Managerial Significance

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