K.J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES AND RESEARCH

PRODUCTION & PRODUCTIVITY MANAGEMENT

MIM SEM II END SEMESTER EXAMINATION

Date :: Tue 09th, April 2019.   **Duration :: 3 Hrs**

                                                                                      Max. Marks ::50

- **Q.1 is Compulsory & Attempt any <u>Four</u> from the remaining Questions.**
- **All Questions will carry equal marks.**
- **Write the answers in clear & concise form without any ambiguity**
- **Computation should be precise & legible**
- **Illustrate answers with sketches wherever required.**

Q.1. Multiple Choice Questions (10 x 1) marks.

1. ---------- takes care of production and services.

    (a) Production management

    (b) Operations management

    (c) Systems management

    (d) None of the above

2. In ---------- Organization, inventory cannot be carried to future periods.

    (a) Manufacturing

    (b) Service

    (c) Both (a) and (b)

    (d) None of the above

3. Hospital system is an example of ----------.

    (a) Project

    (b) Job shop

    (c) Flow shop

    (d) None of the above

4. The output of educational system comes under ----------.

    (a) Products

    (b) Services

    (c) Both (a) and (b)

    (d) None of the above

5. ---------- is an example of standardized service.

    (a) Medical care

    (b) Legal service

    (c) Insurance

    (d) None of the above

6. Productivity is ----------.

    (a) Input/output

    (b) Output/input

    (c) Both (a) and (b)

    (d) None of the above

7. It is desirable to have the productivity index ----------.

    (a) Less than 1

    (b) More than 1

    (c) Equal to 1

    (d) None of the above

8. ---------- is a complex one-of-a-kind product.

    (a) Motor

    (b) Spindle

    (c) Soap

    (d) Dam

9. ---------- Manufacturing facility produces some intermediate varieties of products with intermediate volumes.

   (a) Job shop

   (b) Project

   (c) Batch manufacturing

   (d) Flow shop

10. ---------- is a conversion process in which successive units of output undergo the same sequence of operations, using specialized equipment's usually positioned along a production line.

    (a) Flow shop

    (b) Job shop

    (c) Project

    (d) None of the above

Q.2. (A). Explain transformation process for a purely service organization (A Hospital)

(B). Explain the competitive strategy and competitive advantage

Q.3. (A). Explain the factors affecting the facility locations in manufacturing operations with examples.

(B). Discuss the types of facility layout in details.

Q.4. (A). Explain the objectives of inventory management.

(B). A company uses annually 50000 units of raw material costing Rs. 2.25 per unit. Placing each order costs Rs. 50 and carrying cost is **18%** of the average inventory. Find the economic order quantity. Suppose the company follows purchasing policy and it operates for 310 days a year and the procurement time is 12 days with safety stock of 500 units, find the re-order point, the maximum, minimum and average inventory.

Q.5. (A). Explain the types of Processes with suitable examples.
(B). Determine the optimal sequence of jobs that minimizes the total elapsed time based on the following information (Processing time on machines is given in

hours and passing is not allowed) Also find the Idle time for Machines M1, M2 & M3 respectively.

Jobs

	A	B	C	D	E	F	G
Machine M1	3	8	7	4	9	8	7
Machine M2	4	3	2	5	1	4	3
Machine M3	6	7	5	11	5	6	12

Q.6. (A). What is Aggregate Planning the strategies of aggregate planning

(B). A firm operates 6 days a week on single shift of 8 hours per day basis. There are 10 machines of the same capacity in the firm. If the machines are utilized for 75 percent of the time at a system efficiency of 80 percent. What is the rated output in terms of standard hours per week ?

Q.7. Write Short Notes (**Any TWO**)

a. Productivity Improvement Techniques
b. 5 S
c. Value Analysis
d. MRP I & MRP II
e. Types of capacities