



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

InSem Examination-I Winter2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:III
Class:PG-II	Program:MBA
Branch Code:10	Pattern:2024
Name of Course:TPS and Industry 5.0	Course Code:2410612D
Max. Marks:30	Duration:1.15 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains two page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.
6. Solve a) or b) from Q. No2 and Q.No 4

Marks CO

Question No. 1

- 1 a) Explain: Long-Term Philosophy with examples (3) CO1
1 b) What is one-piece flow system? Elaborate its importance at TPS. (4) CO1

Question No. 2

- 2 a) Illustrate 'Principle 10: Develop Exceptional People and Teams Who Follow Your Company s Philosophy' - with examples. (8) CO1

OR

- 2 b) How does Genchi Genbutsu support Toyota's commitment to continuous improvement and quality control within TPS? (8) CO1

Question No. 3

- 3 a) How Toyota was able to create a learning organisation? Explain with examples. (3) CO2
3 b) Explain theory of constraints. Write about its application in the manufacturing industry. (4) CO2

Question No. 4

- 4 a) A company has demand of 58 units/day, size of container is 3 units. Properly follow the below information: (8) CO2

a. There are few activities which are required from buffer B2 to B1 and these are represented by A, B, C, D.

A is waiting time in the mailbox = 32 minutes

B is the time which it takes in moving from this mailbox to the upstream workstation= 52 minutes

C is the moves back to the downstream station=60 minutes

D is waits in the downstream buffer until the container is accessed and the kanban is put back in the mailbox = 48 minutes

In a day, consider 480 minutes

Calculate the Conveyance Kanban for the following.

a. For Production Kanban following details are given:

A = 15 minutes

B = 0.5 minutes

C = 0.5 minutes

D = 1 minutes

Calculate the Production Kanban and then Total Kanban

OR

4 b) Illustrate: 'Principle 11: Respect Your Extended Network of Partners and Suppliers by Challenging Them and Helping Them Improve' (8) CO2

..... End of question paper.....