

**UNIVERSITY COLLEGE TATI (UCTATI)****FINAL EXAMINATION QUESTION BOOKLET**

COURSE CODE	: DTG 2053
COURSE TITLE	: OPERATIONS MANAGEMENT
SEMESTER/SESSION	: 2 - 2024/2025
DURATION	: 3 HOURS

Instructions:

1. This booklet contains 5 questions. Answer **ALL** questions.
2. All answers should be written in answer booklet.
3. Write legibly and draw sketches wherever required.
4. If in doubt, raise your hand and ask invigilator assistance.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO
THIS BOOKLET CONTAINS 4 PRINTED PAGES INCLUDING COVER PAGE

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QUESTION 1

Monthly sales of digital camera in the supermarket Giant is as follows:

Month	Actual Sales 2024 (Unit)
May	80
June	90
July	100
August	125
September	150
October	175
November	200
December	225

- Estimate a forecast using 3-month moving average method starting from August to December for year 2025. (5 marks)
- Estimate a forecast using 3-month weighted moving average with the weighted of 0.2, 0.3, and 0.4 from August to December for year 2025. (5 marks)
- Infer your conclusion based on your answer from a and b in term of accuracy of the forecast. (5 marks)

QUESTION 2

- List **FOUR (4)** phases in product life cycle. (4 marks)
- Describe **ONE (1)** challenge faced by the entrepreneur at every phase of the product life cycle. (8 marks)
- Clarify **ONE (1)** reason for redesigning a product. (3 marks)

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QUESTION 3

- a. Explain **FOUR (4)** functions of inventory. (12 marks)
- b. Describe **FOUR (4)** types of inventory commonly available in product manufacturing. (8 marks)
- c. In inventory management, there is a method called ABC analysis. Considering a company keeps 100 items of inventory in its warehouse. Explain how ABC analysis can be adopted. (10 marks)

QUESTION 4

- a. The following set of seven jobs is to be processed through two work centers at George Heinrich's printing company. The sequence is first printing, then binding. Processing time at each of the work centers is shown in the following table:

Job	Printing (hours)	Binding (hours)
T	15	3
U	7	9
V	4	10
W	7	6
X	10	9
Y	4	5
Z	7	8

- i. Estimate optimal sequence for these jobs to be scheduled. (3 marks)
- ii. Depict the chart of these jobs through the work centers. (6 marks)
- iii. Estimate the total length of time of this optimal solution. (3 marks)
- iv. Estimate the idle time in the binding shop, given the optimal solution. (3 marks)
- b. Explain briefly **TWO (2)** differences between scheduling for services and manufacturing. (5 marks)

QUESTION 5

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a. Describe the focused area for each of the following:

i. JIT

ii. TPS

iii. Lean Operation

(6 marks)

b. Traditional house keeping has been expanded into 7Ss. Explain briefly all the 7Ss.
(14 marks)

-----End of question-----