

Time left 0:40

----- is normally restricted to rectangular departments but it can also be used with non rectangular buildings.

- Pairwise method
- Blocplan method
- Craft method
- Graph-based method

Clear my choice

to search

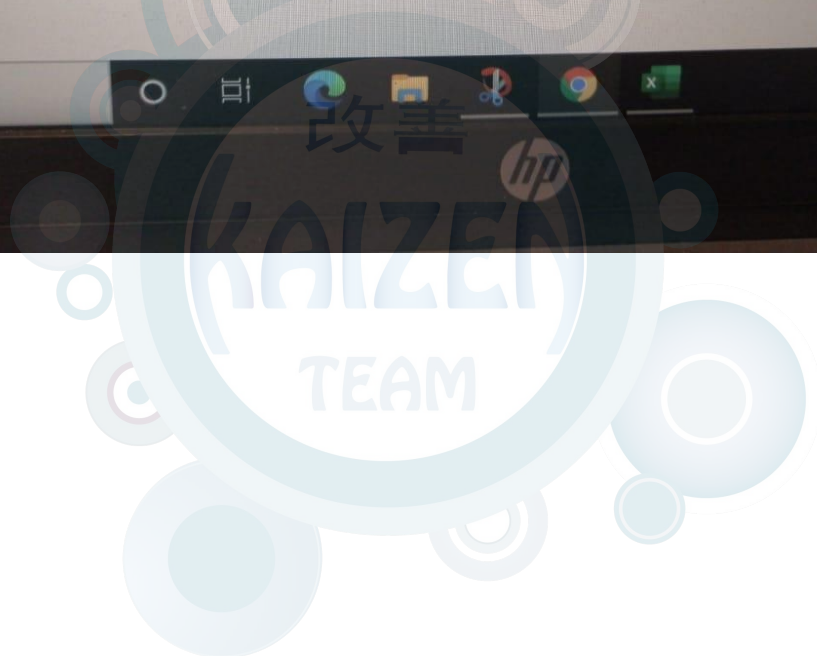


Please select the correct answer:

- Space in material handling is two-dimensional and therefore is counted as square feet space.
- Standardization in material handling means more variety and customization in equipment and method.
- Standardization in material handling means less variety and more customization in equipment and method.
- Space in material handling is three-dimensional and therefore is counted as cubic space.

Clear my choice

Next page



Time left 0:3

please select the correct answer:

- two grids that touch each other at the corners are considered adjacent.
- two grids that touch each other at the corners are not considered adjacent.
- two grids that touch each other at the corners are not considered split.
- Improvement-type algorithms start an initial layout from scratch.

[Clear my choice](#)

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KAIZEN

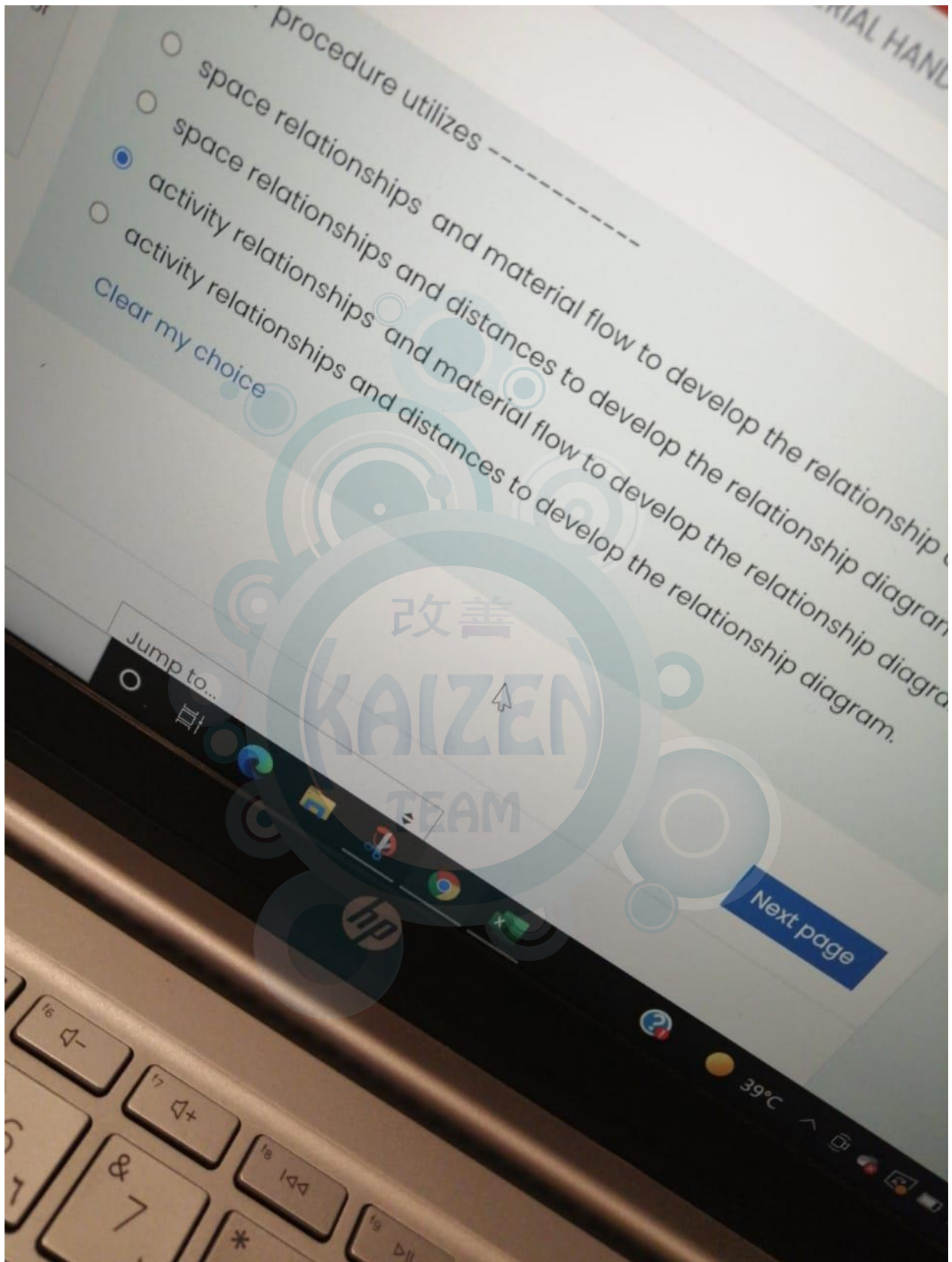
TEAM

Please select the correct answer:

- The graph obtained from the relationship diagram is usually planar graph
- The adjacency score does not account for distance, but it accounts for relationships between non-adjacent departments.
- The adjacency score does not account for distance, but it accounts for relationships between adjacent departments.
- The adjacency score does not account for distance, nor it accounts for relationships between adjacent departments.

[Clear my choice](#)





Question 13

Not yet answered

Marked out of 3.00

Flag question

Given the following machine-part matrix:

P/M	1	2	3	4	5
1	1		1		
2	1				
3		1		1	1
4		1			
5				1	1
6	1		1		

If two cells are required, please determine the machines and parts of each cell. No new machines should be added.

↓ A ▾ B I ≡ ≡ ∞ ↻ 🖼

Question 13

Not yet answered

Marked out of 3.00

Flag question

Given the following machine-part matrix:

P/M	1	2	3	4	5
1	1		1		
2	1				
3		1		1	1
4		1			
5				1	1
6	1		1		

If two cells are required, please determine the machines and parts of each cell. No new machines should be added.

↓ A ▾ B I ≡ ≡ ∞ ↻ 🖼

Given the following machine-part matrix:

P/M	1	2	3	4	5
1	1		1		
2	1				
3		1		1	1
4		1			
5				1	1
6	1		1		

If two cells are required, please **determine the machines and parts of each cell.** No parts added.

↓ A B I ☰ ☷ 🔗 🔗 🖼

cell 1 machine 5 4 2 and parts 3 5 4
cell 2 machine 3 1 and parts 6 1 2



DELL



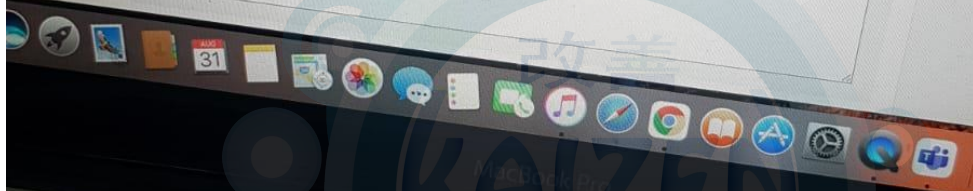
Time left 0:55:0

Question 3
Not yet answered
Marked out of 3.00
Flag question

A product requires three processes in the following sequence A-B-C-A. It is known that moving one unit from A-B is equivalent of moving two units from B-C and is equivalent to moving 3 units from A-C. Given that 30 units will be produced. What will be the total of equivalent flows (consider the unit between A-B the common unit).

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from a to b $f=30$
from b to c $f=15$
from c to a $f=10$
total flow = 55



FACILITIES PLANNING AND MATERIAL HANDLING

My courses FACILITIES PLANNING AND MATERIAL HANDLING General -50% Final Exam

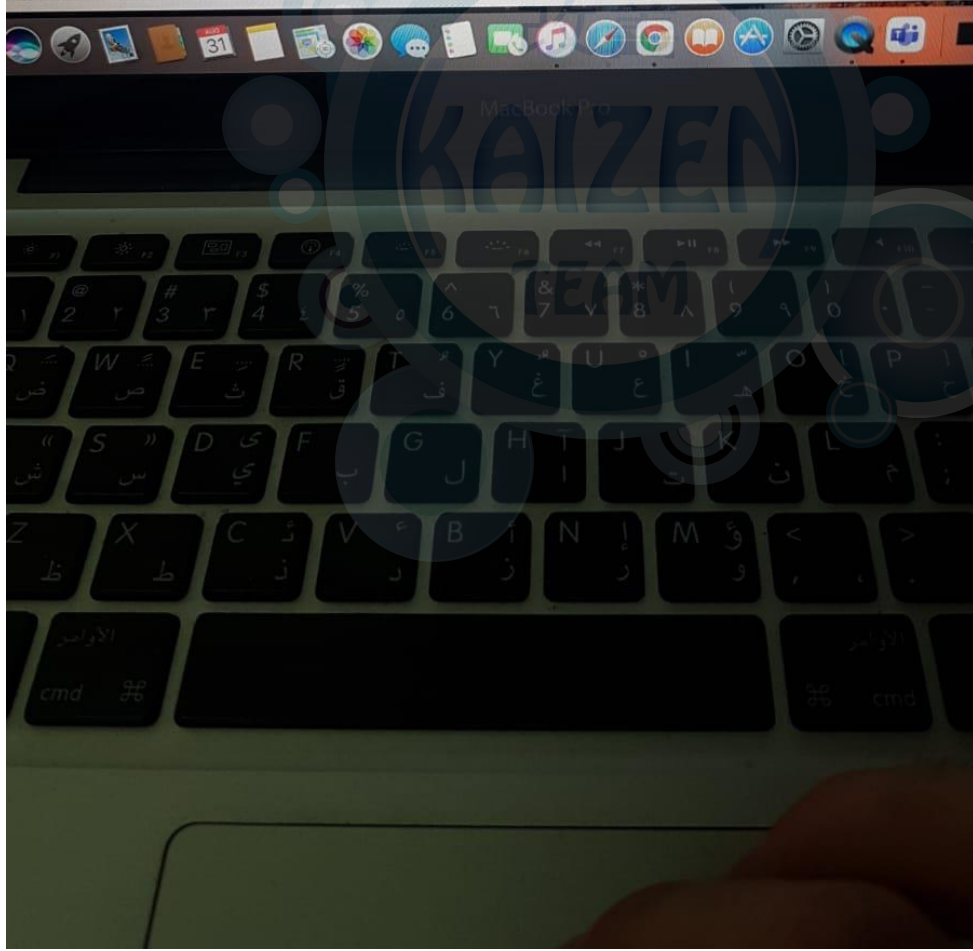
Time left 1:03:58

An industrial facility employs 600 employees and they are to eat in three 30-minute shifts. The space that should be planned for serving lines is -----.

- 1500
- 300
- 900
- 2700

Clear my choice

Next page



Time left 0:49:27

A product requires two processes A and B sequentially. Suppose that the processing time = 2 minutes per piece and material handling time = 4 minutes per move. A quantity of 12 pieces to be completed. What will be the completion time if the unit load size = 4. Assume that the truck capacity is one unit load.

↴ A B I ☰ ☷ 🔗 ⚙️ 🖼️

completion time = $8 \times 3 + 4 \times 3 = 36$



Consider the following relationship chart:

	1	2	3	4	5
1		20	15	0	0
2			10	25	0
3				15	10
4					5
5					

Perform **steps 1 and 2** of graph-based method.

Rich text editor toolbar: **↓** **A** **B** **I** **☰** **☰** **🔗** **🔄** **🖼️**

between 2 and 4 strongest
then we add 3|

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Course: Information...

FACILITIES PLANNING AND MATERIAL HANDLING

My courses > FACILITIES PLANNING AND MATERIAL HANDLING > General --50% Final Exam

Time left 1:00:44

The total space requirement that should be allowed in the facility plan for health services area with two nurses and a part time physician is -----

- 650
- 750
- 350
- 600

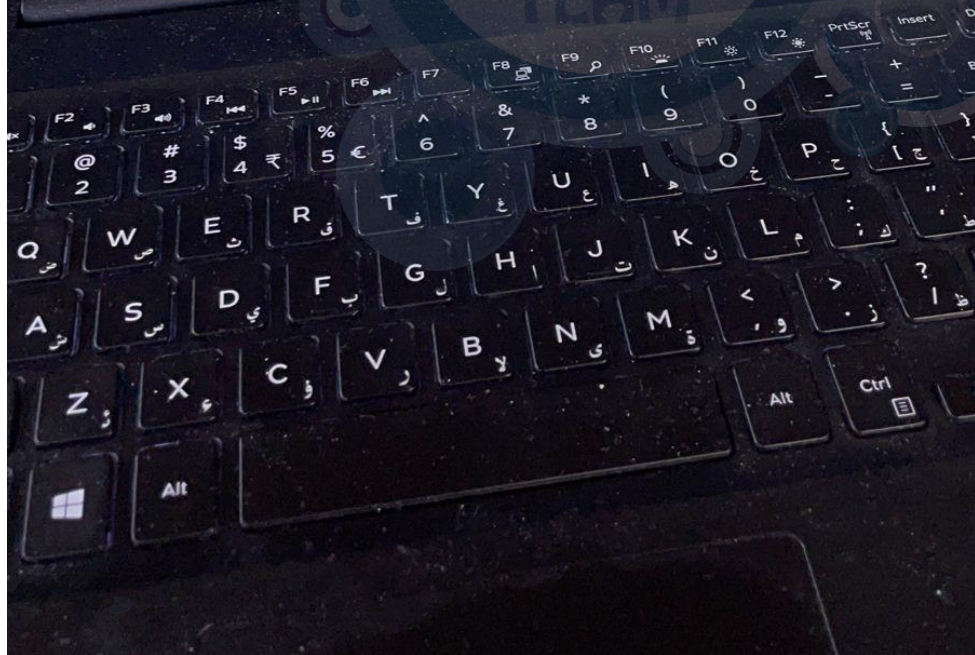
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Jump to...

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DELL



% Final Exam

Time left 1:00

Question 1

Not yet answered

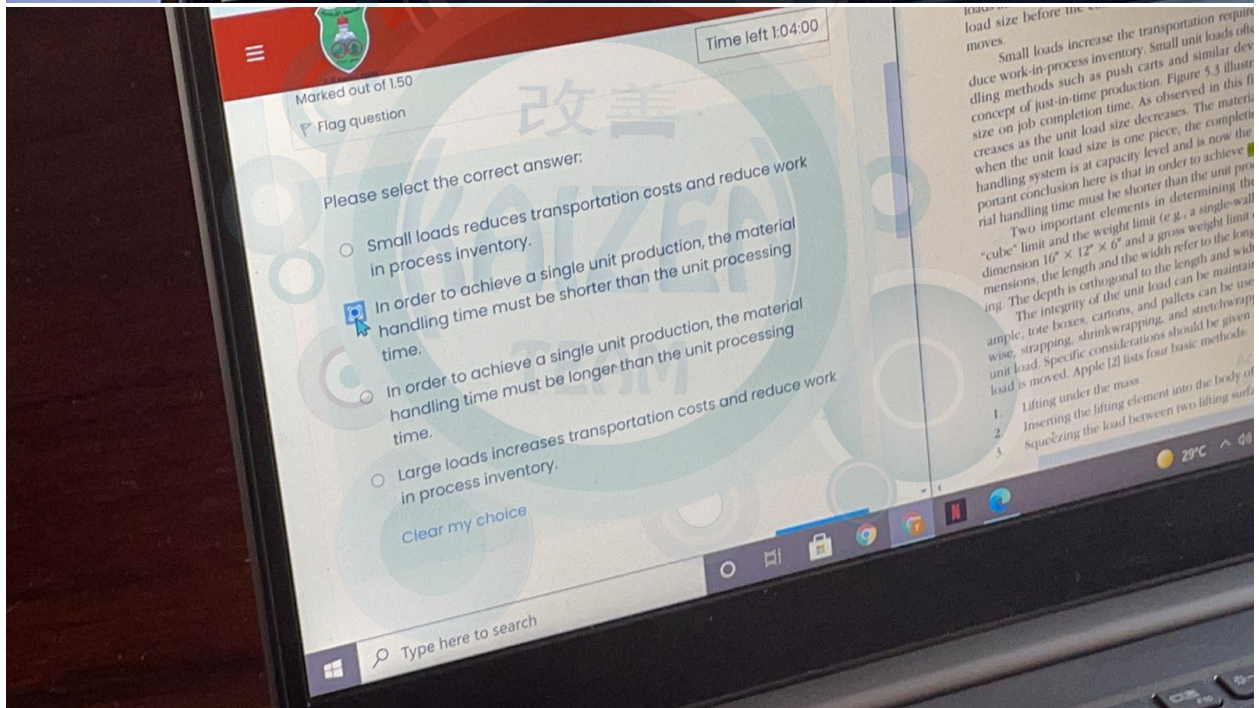
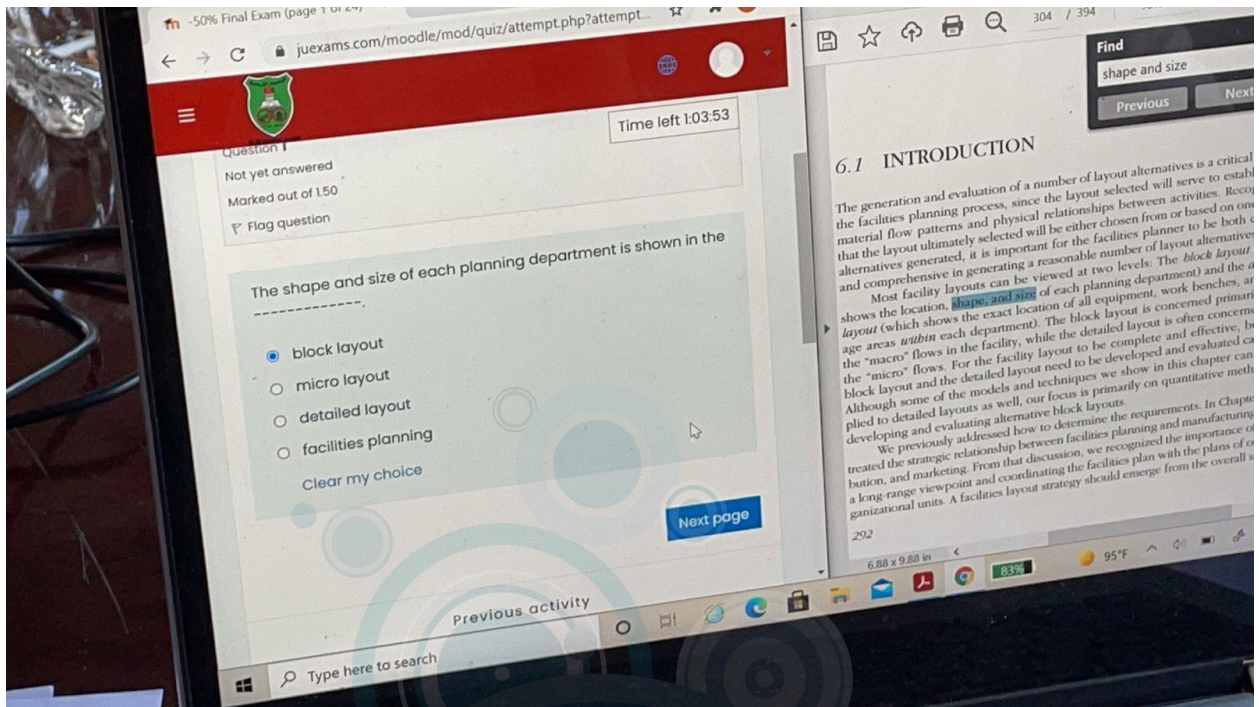
Marked out of 1.50

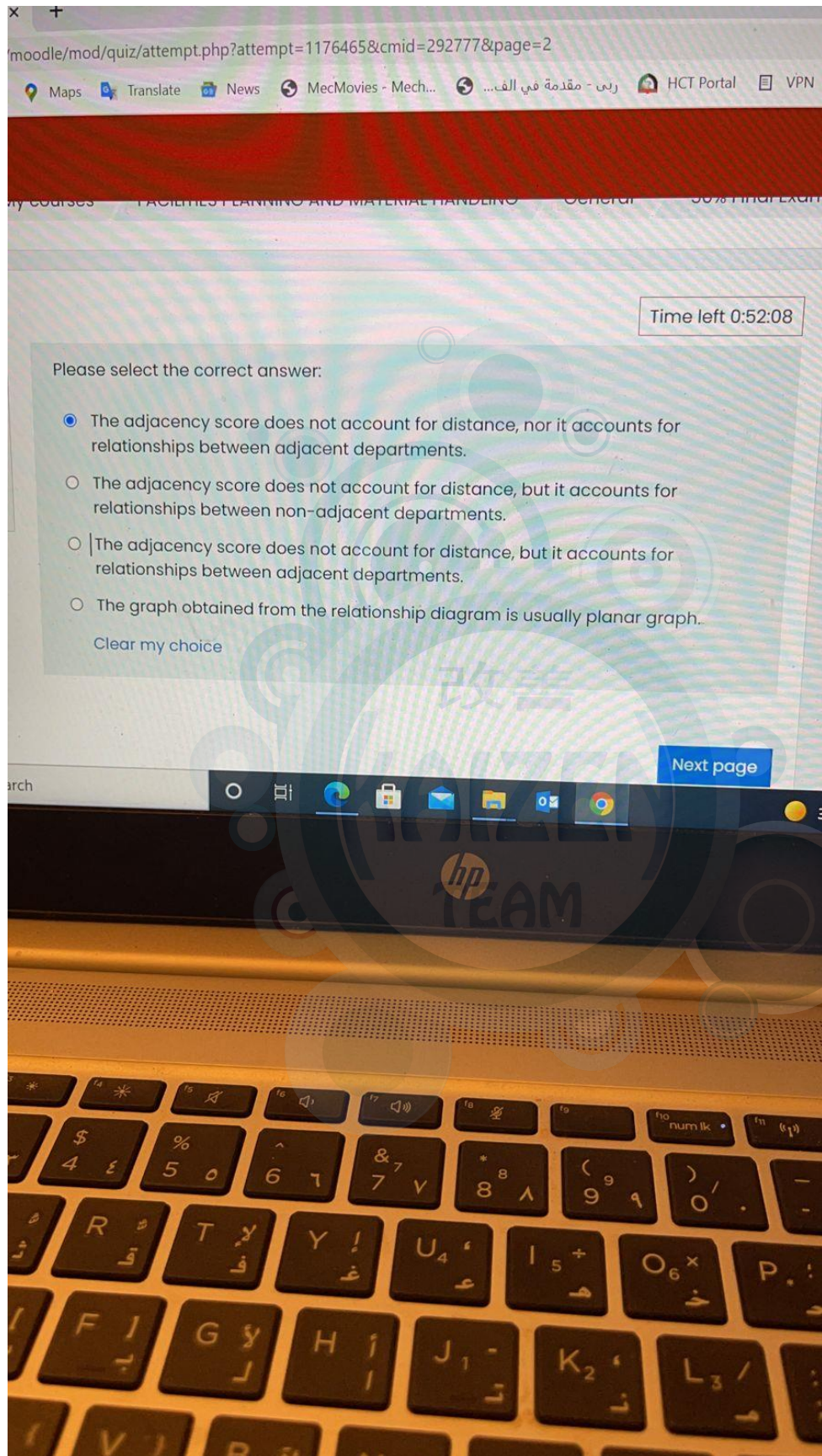
Flag question

Please select the correct answer:

- Small loads reduces transportation costs and reduce work in process inventory.
- In order to achieve a single unit production, the material handling time must be shorter than the unit processing time.
- Large loads increases transportation costs and reduce work in process inventory.
- In order to achieve a single unit production, the material handling time must be longer than the unit processing time.

Clear my choice





FACILITIES PLANNING AND MATERIAL HANDLING

Home My courses FACILITIES PLANNING AND MATERIAL HANDLING General -50

Time

Question 6
Not yet answered
Marked out of 5.00
Flag question

The use of general-purpose machines is an advantage of -----

- Fixed product layout
- Group layout
- process layout
- product layout

Next



KAIZEN TEAM

Time left 1:02:57

Please select the correct answer:

- Space in material handling is three-dimensional and therefore is counted as cubic space.
- Space in material handling is two-dimensional and therefore is counted as square feet space.
- Standardization in material handling means more variety and customization in equipment and method.
- Standardization in material handling means less variety and more customization in equipment and method.

Clear my choice

Next page

to search



Time left 0:54:2

Question 2
Not attempted
1 out of 1
Progression

Consider the following information:

Initial layout:

1234

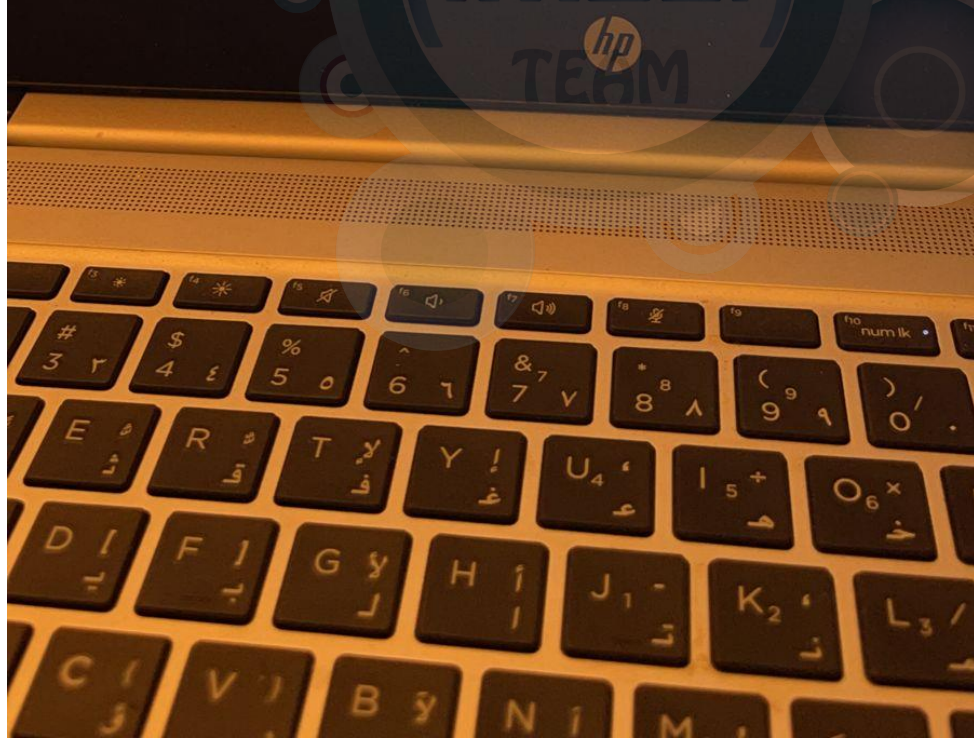
Flow matrix:

	1	2	3	4
1		20	15	10
2			10	5
3	10			5
4				

Assume the distance from P/D of each pair of departments is 15'. Bidirectional material handling system is used. Calculate the total cost of layout when the pair 1-3 is selected.

$(10 \times 15) + (30 \times 25) + (45 \times 5) + (15 \times 20) + (30 \times 5) + (15 \times 10) = 1725$

here to search



Time left 0.

Please select the correct answer:

- It is expected that less than 5% of the pairwise combinations to have A activity relationships and less than 5 % to have X relationships.
- It is expected that less than 5% of the pairwise combinations to have A activity relationships and more than 5 % to have X relationships.
- It is expected that more than 12 % of the pairwise combinations to have either A or E activity relationships.
- It is expected that less than 5% of the pairwise combinations to have A activity relationships and less than 5 % to have U relationships.

[Clear my choice](#)

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[Next page](#)

39

TEAM

Time left 0:53:59

Please select the correct answer:

- Small loads reduces transportation costs and reduce work in process inventory.
- Large loads increases transportation costs and reduce work in process inventory.
- In order to achieve a single unit production, the material handling time must be longer than the unit processing time.
- In order to achieve a single unit production, the **material handling time** must be shorter than the unit processing time.

[Clear my choice](#)

[Next page](#)

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FACILITIES PLANNING AND MATERIAL HANDLING

General

50% Final Exam

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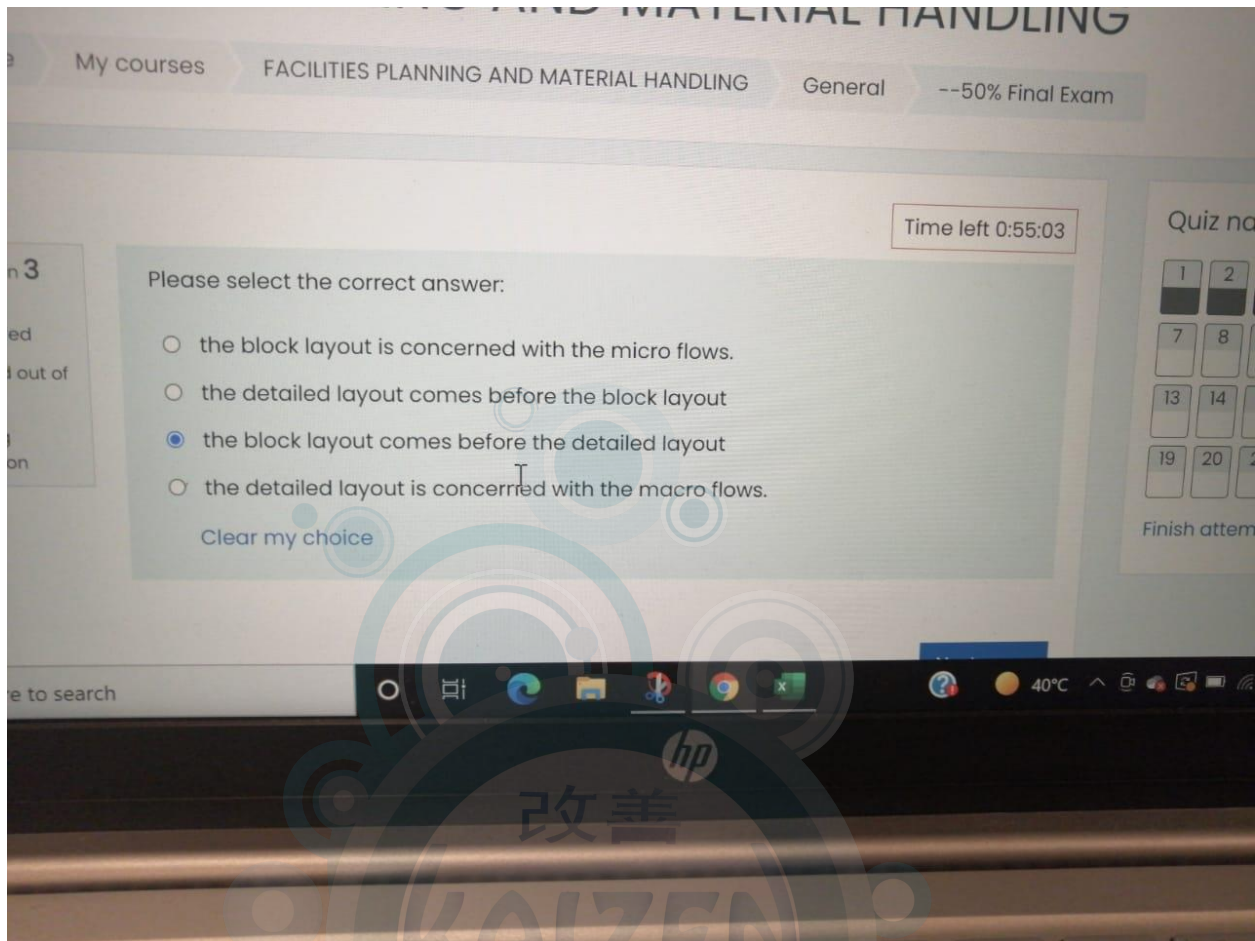
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Please select the correct answer:

- Both layout procedures and algorithms are divided into construction and improvement.
- Plant layout is determined before material handling system.
- Only layout procedures are divided into construction and improvement.
- Only layout algorithms are divided into construction and improvement.



My courses

FACILITIES PLANNING AND MATERIAL HANDLING

General

--50% Final Exam

Time left 0:55:03

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Please select the correct answer:

- the block layout is concerned with the micro flows.
- the detailed layout comes before the block layout
- the block layout comes before the detailed layout
- the detailed layout is concerned with the macro flows.

Clear my choice

Quiz no

1	2
7	8
13	14
19	20

Finish attempt

to search



Question 19

Not yet answered

Marked out of 2.00

▼ Flag question

Please select the correct answer:

- In hospital facilities planning, hospital facility system and location belong to hospital design.
- In hospital facilities planning, hospital facility system and layout belong to hospital design.
- In hospital facilities layout, hospital facility system and layout belong to hospital design.
- In hospital facilities planning, hospital facility location and layout belong to hospital design.

Clear my choice

Finish attempt ...

In deciding machine requirement,
dedicating manufacturing cells may

- preventive maintenance
- the longer setup, the more machines needed
- require more machines
- require less machines

Question 16

Not yet answered

KAIZEN
TEAM

Question /

Not yet answered

Time left 0:19:44

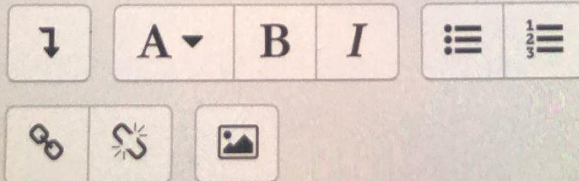
Marked out of 3.00

Flag question

Given the following information for movement of components x, y and z in facility departments A to C. Components x to z are different in their weight. Moving 2 components of x is equivalent to moving one of component y. Moreover, moving one component of y is equivalent to moving three component of z. It is decided that the movement factor is decided based on the weight of component y.

Component	Quantity per day	Routing
x	40	A-B- C-A
y	12	A-C-B
z	30	B-C-A

Calculate the total of flow volumes between departments A-C and C-A.



Clear my choice

n 14

If a product dominates the production flow (Pareto law applies), then a general shop facility is suggested.

Select one:

True

False

Next page

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xxxxxmid=291482

Question 2

Not yet answered

Marked out of 2.00

Flag question

Please select the correct answer:

Time left 1:00:07

- In flow within a product department, flow of work follows the product flow.
- In flow within a process department, flow typically occurs between departments and aisles.
- In flow within a product department, flow typically occurs between departments and aisles.
- In flow within a product department, flow of work follows the process flow.

Clear my choice

Next page

Time left 0:57:57

Please select the correct answer:

- For a manufacturing facility that consists of product planning departments for producing large variety of unrelated products, the workstation can be designed based on product layout.
- For a manufacturing facility that consists of product planning departments for producing few high volume, standard products, the workstation can be designed based on product layout.
- For a manufacturing facility that consists of process planning departments for producing large variety of related products, the workstation can be designed based on product layout.
- For a manufacturing facility that consists of product planning departments for producing few high volume, standard products, the workstation can be designed based on process layout.

[Clear my choice](#)

Given the following information for movement of components x, y and z in facility departments A to C.

Time left 1:01:07

Question 1
Not yet answered
Marked out of 10
Flag question

Please select the correct answer:

- In hospital facilities planning, hospital facility location and layout belong to hospital design.
- In hospital facilities planning, hospital facility system and location belong to hospital design.
- In hospital facilities planning, hospital facility system and layout belong to hospital design.
- In hospital facilities layout, hospital facility system and layout belong to hospital design.

[Clear my choice](#)

Time left 1:03:24

Please select the correct answer:

- Planning and inventory control decisions only affect handling systems.
- Planning and inventory control decisions only affect the layout.
- Planning and inventory control decisions affect the layout and handling systems.
- Planning and inventory control decisions affect the systems design and handling systems.

Clear my choice

Given the prioritization matrix

	Criteria			
	A	B	C	D
A	1	1/10	10	1/5
B		1	5	1



Time left 0:55:11

A product requires a three-step manufacturing process (1-4). Their defective rates are 5%, 2%, 3% and 1%, respectively. The scrap costs are \$ 3, 4, 5 and 10, respectively. The demand requires 2,500 units. Compute the required input for operation 1 and its scrap cost.

```
i1=2500/(1-d1)(1-d2)(1-d3)(1-d4)
i1=2796
i2=2656
i3=2603
i4=2525
scrap cost
scrap in i1=140
scrap in i2=53
scrap i3=78
scrap i4=26
cost =140*3+53*4+78*5+26*10=1232
```



Time left 0:59:42

Question 1

Not yet answered

Marked out of 2.00

Flag question

Please select the correct answer:

- The flow pattern within departments depends is dependent on department type.
- The flow pattern within workstations depends on department type.
- The flow pattern within departments depends is dependent on the material handling systems.
- The flow pattern between departments depends on flow of work.

[Clear my choice](#)

Question 2

Not yet answered

Marked out of 4.00

Flag question

(d) What assignment of NC machines will minimize the cost per batch Time left C

Rich text editor toolbar with icons for undo, font color, bold, italic, list, link, unlink, and image.

a- $5+40/5+8=3.4$

b- $lm=0 \rightarrow m \leq n^{\wedge}$ so $m=3$

c-

d- $e=0.43$

$3.43 \times 3.4 / 4.43 \times 3 = 0.87$

$0.87 < 1$ so n machines (3)

rch



FACILITIES PLANNING AND MATERIAL HANDLING

My courses

FACILITIES PLANNING AND MATERIAL HANDLING

General

Mid-term Exam

Time left 0:57:48

Please select the correct answer:

- For effective flow, the total flow and cost of flow shall be minimized.
- For just-in time facilities, minimizing the number of receiving/shipping docks is an important issue.
- An important consideration in the flow within departments is the location of the pick-up and delivery stations for each department.
- For effective flow, the number of directed flow paths should be minimized

[Clear my choice](#)

An order of 25 custom-designed castings has been received. Each casting costs \$ 400 per scheduled castings. If the casting is good, it is then finished to specifications at an added cost of \$ 200. Good castings, either

Quiz naviga

1	2	3
9	10	11
17	18	19

Finish attempt.

4

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out of

The -----, a level of supply chain excellence, minimizes supply chain surprises because it provides all information links to understand the ongoing status.

- visibility
- velocity
- adaptability
- planning

[Clear my choice](#)

Time left 0:51:48

Please select the correct answer:

- In the winning facilities planning process, assessment of the present status should be based on both quantitative and qualitative factors.
- In the winning facilities planning process, assessment of the present status should be based on qualitative factors.
- In the winning facilities planning process, assessment of the present status should be based on customer satisfaction.
- In the winning facilities planning process, assessment of the present status should be based on quantitative factors.

Clear my choice

Please select the correct answer:

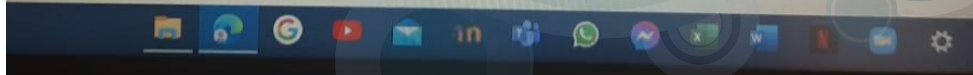


4					
5					
6					

If two cells are required, please determine the machines and parts of each cell.

↵ A B I ☰ ☷ 🔍 🔄 🖼️

machine 3 products 1 and 4 and 6
machine 1 products 1 and 4 and 2



DELL



Please select the correct answer:

- In flow within a product department, flow of work follows the process flow.
- In flow within a process department, flow typically occurs between departments and aisles.
- In flow within a product department, flow of work follows the product flow.
- In flow within a product department, flow typically occurs between departments and aisles.

[Clear my choice](#)

[Next page](#)

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Question 3

Not yet answered

Marked out of 2.00

[Flag question](#)

Please select the correct answer:

- The tree diagram is used to map in less details the actions that need to be accomplished in order to achieve a general objective
- Process schedule maps conceivable events and contingencies that might occur during implementation
- Process decision program maps conceivable events and contingencies that might occur during implementation
- The tree diagram is used to map logical relationships among related items.

[Clear my choice](#)

Time left 0:45:20

Question 4

Not yet answered

Marked out of 2.00

Please select the correct answer:

- The flow pattern within departments depends is dependent on the material handling systems.

1	2
7	8
13	14
19	

Finish attempt



Time left 0:35:48

Given the following information, parts P1 and P2 on machines A and B (Efficiency and Reliability values are 95 % for both machines). The setup times for P1 and P2 are 30 and 20 minutes, respectively. The P1 routing is B-A; 10,000 units to be produced per year. The P2 routing is A-B; 50,000 units to be produced per year.

Machine	A	B
P1 standard time (hour)	0.1	0.2
P2 standard time (hour)	0.15	0.1
P1 defect estimate %	3	4
P2 defect estimate %	5	4
Availability (hours)	1600	1400

Show calculations:

- What is the input of machine B for part P1 (round up).
- What is the input of machine A for part P2 (round up).
- What fraction of machines required to compensate for setup times for parts P1 and P2.
- What are the fractions of machines A and B to produce parts P1 and P2 when preventive maintenance is regularly performed?.

A product requires a three-step manufacturing process (1-4). Their defective rates are 5%, 2%, 3% respectively. The scrap costs are \$ 3, 4, 5 and 10, respectively. The demand requires 2,500 units. Calculate the required input for operation 2 and its scrap cost.

↓ A B I [List Icons] [Link Icon] [Image Icon]

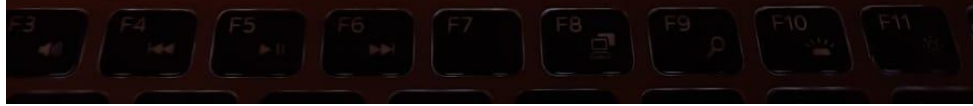
$$I_2 = 2500 / (.99 * .97 * .98) = 2656.48 = 2657$$
$$S.C = 2657 * .02 * 4 = 212.56$$

Given the following machine-part matrix:

P/M	1	2	3	4	5
1	1		1		
2	1				



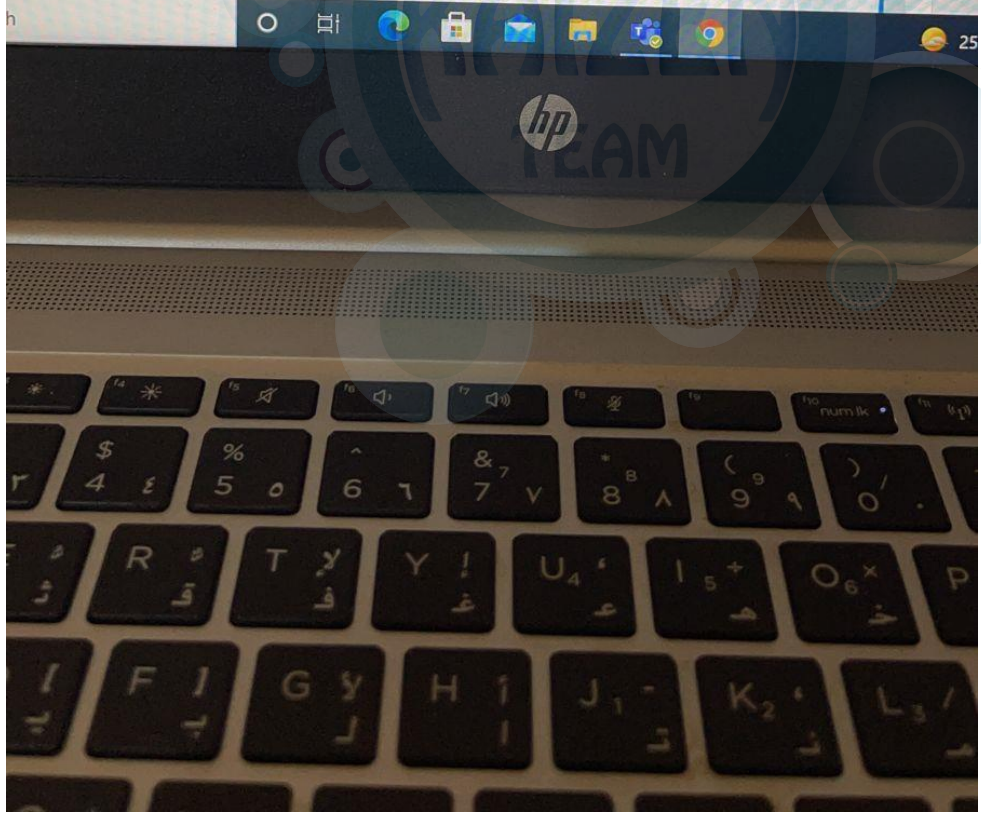
DELL



Castings are conveyed to NC machine, which is programmed by an operator. Time left 0:52:58
Reprogramming is performed after producing each batch of castings. The reprogramming requires 5 minutes. The NC machine operates automatically for 40 minutes. Operator can restock the machine with new castings during the last 5 minutes of automatic operation. Restocking castings requires 5 minutes. Data entry and travelling by the operator requires 3 minutes. Operator cost = \$ 15 per hour and machine cost = \$ 35 per hour. (Show calculations)

- (a) What is the ideal of identical machines to assign to an operator?
- (b) What is the maximum number of NC machines one operator can tend without creating idle time for the NC machine.
- (c) What is the length of the repeating cycle?
- (d) What assignment of NC machines will minimize the cost per batch produced?

↓ A B I [List Icons] [Link Icon] [Image Icon]
a- $5 + 40/5 + 8 = 3.4$
b- $lm=0 \rightarrow m \leq n$ so $m=3$
c-



Time left

Please select the correct answer:

- Planning and inventory control decisions only affect the layout.
- Planning and inventory control decisions affect the systems design and handling systems.
- Planning and inventory control decisions only affect handling systems.
- Planning and inventory control decisions affect the layout and handling systems.

Clear my choice

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An order of 25 custom-designed castings has been received. Each casting costs \$400 per scheduled castings. If the casting is good, it is then finished to specifications at an added cost of \$250.

ANALYZER
TEAM

Time left 0:51:02

Processes, equipment and raw materials required for the inhouse manufacturing are the outputs of -----

- computer aided process design
 - process selection procedure
 - process identification
 - schedule design
- Clear my choice

Question 8

yet
answered
marked out of
10

A product requires a three-step manufacturing process (1-4). Their defective rates are 5%, 2%, 3% and 1%, respectively. The scrap costs are \$ 3, 4, 5 and 10, respectively. The demand requires 2,500 units. Compute the required input for operation 2 and its scrap cost.

here to search

