

Course No: : BGMS 3105
 Course Title: OM
 Date: 14 / 1/ 2014
 No. of Questions: 4
 Time: 120 Minutes
 Using Calculator (yes)

University of Palestine



Final examination
 1st 2013/2014
 Total Grade: 60

Instructor Name: Shefa El Sagga
 Student No.: _____
 Student Name: _____
 College Name: _____
 Dep. / Specialist: _____
 Using Dictionary, Mobile (No)

Answer all questions

First Question	No. of Branches (1)	(10/60)
Q1: B1		(10/10)
First Q: Definitions (02/02)		
1. O M		
<ul style="list-style-type: none"> ▪ _____ 		
2. The objective of Supply-Chain Management		
<ul style="list-style-type: none"> ▪ _____ 		
Write appropriate terms for the following definitions (08/08)		
1. _____		
<ul style="list-style-type: none"> ▪ Group of empowered individuals working together to reach a common goal 		
2. _____		
<ul style="list-style-type: none"> ▪ Time required by an average skilled operator, working at a normal pace, to perform a specified task using a prescribed method 		
3. _____		
<ul style="list-style-type: none"> ▪ Choice between internal production and external sources 		
4. _____		
<ul style="list-style-type: none"> ▪ Transfers traditional internal activities and resources of a firm to outside vendors 		
5. _____		
<ul style="list-style-type: none"> ▪ Cost-Based Price Model, Market-Based Price Model, &Competitive Bidding 		
6. _____		
<ul style="list-style-type: none"> ▪ Trade-off is between reduced product cost and increased holding cost 		
7. _____		
<ul style="list-style-type: none"> ▪ The demand for item is independent of the demand for any other item in inventory 		
8. _____		
<ul style="list-style-type: none"> ▪ Rely on a variety of supplier relationships to provide services on demand 		
Second Question	No. of Branches (2)	(10/60)
Q2 B1		(10/10)
Second Q: Remember, &answer <u>Ten</u> questions only		
1. The four basic strategies		
1.	2.	
3.	4.	
2. Why do Process Analysis and Design?		
1.	2.	
3.	4.	

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3. The key success factors of the Site Location Decision

1.	2.
3.	4.
5.	

4. The methods to evaluating location alternatives

1.	2.
3.	4.

5. Types of Work Schedules of labor planning

1.	2.
3.	4.

6. The major issues in job design

1.	2.	3.
4.	5.	

7. The four ways of establishing labor standards

1.	2.
3.	4.

8. The types of supply-chain strategies

1.	2.	3.
4.	5.	6.

9. The ways of logistics management

1.	2.
3.	4.

10. The types of managing inventory

1.	2.
3.	4.

11. The ways to determine Inventory Models for Independent Demand

1.	2.	3.
4.	5.	

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Third Question	No. of Branches (1)	(20/60)
<u>Q3B1</u>		<u>(04/04)</u>
<u>Q3 B2</u>		<u>(04/04)</u>
<u>Q3 B3</u>		<u>(04/04)</u>
<u>Q3 B4</u>		<u>(04/04)</u>
<u>Q3 B5</u>		<u>(04/04)</u>
<u>Q3 B6</u>		<u>(04/04)</u>

Third Q: Answer Five Questions only:

1. What are the sources of lean manufacturing? (04/04)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

2. Why doing Location Strategy? (04/04)

1. _____
2. _____
3. _____
4. _____
5. _____

3. What are the key factors for the service location strategy? (04/04)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____



4. What are the benefits of teams and expanded job designs? (04/04)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

5. What are the several advantages of cycle counting? (04/04)

1. _____
2. _____
3. _____
4. _____
5. _____


6. What are the important activities Supply Chain Management includes? (04/04)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Fourth Question	No. of Branches (1)	(20/20)
<u>Q3B1</u>		<u>(04/04)</u>
<u>Q3 B2</u>		<u>(04/04)</u>
<u>Q3 B3</u>		<u>(04/04)</u>
<u>Q3 B4</u>		<u>(04/04)</u>
<u>Q3 B5</u>		<u>(04/04)</u>

Fourth Q: Exercise:

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1. The following information about Locations and factors that one company's management considered that it the most important

Key Success factor	Scores (out of 100)			
	Weight	Location 1	Location 2	Location 3
Labor availability	5	9	7	7
Rent cost	3	7	10	3
Society trends	3	5	2	6
Health services	2	3	6	2

Required: Evaluate these alternatives using Factor Rating method & Explain (04/04)

Solution:

Weighted for Location 1 = _____

Weighted for Location 2 = _____

Weighted for Location 3 = _____

➤ _____

2. Industrial company has alternatives to choose one location for a new branch. Has learned that the fixed cost of these locations were estimated as follows: \$20,000, \$40,000, \$60,000, respectively, and estimated variable cost per unit 65\$, 45\$, \$25, respectively, while the sale price of united one was estimated at \$100

Required: Determine the best location & Explain (04/04)

a. Using total cost

b. Using the break-even point for quantities

c. Using expected production volume equal to 1400 units

Solution:

a. The best location using total cost

Total Cost = _____

Total Cost Location 1= _____

Total Cost Location 2= _____

Total Cost Location 3= _____

➤ _____

b. The best location using Break-Even point = _____


Location 1= _____

Location 2= _____

Location 3 = _____

➤ _____

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c. The best locations using the expected production volume equal to 1400 units

Profit = _____
 Profit location 1 = _____
 Profit location 2 = _____
 Profit location 3 = _____
 ➤ _____

3. The following information showing the locations of one bank branches and transaction volume

bank Location	Transaction volume
Remal (100, 50)	160.000
El Nasr (50, 100)	120.000
Wehda (150, 150)	60.000
Sabra (0, 200)	40.000

Required: locate the new branch (04/04)

Solution:
 X-coordinate = _____

Y-coordinate = _____

➤ New optimization location is on the points (_____, _____)

4. One company have Investment in inventory = \$11.4 billion, Total assets = \$44.4 billion, and the following information of Inventory turnover

Net revenue	\$32.5
Cost of goods sold	\$14.2
Inventory:	
Raw material inventory	\$.74
Work-in-process inventory	\$.11
Finished goods inventory	\$.84
Total inventory investment	\$1.69

Required: Compute (04/04)

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- a. percent of assets committed to inventory
- b. Inventory turnover
- c. & Weeks of supply

Solution:

- a. percent of assets committed to inventory

Percent invested in inventory = _____

Percent invested in inventory = _____

- b. Inventory turnover

Inventory turnover = _____

Inventory turnover = _____

- c. weekly of supply

Average weekly cost of goods sold = _____

Weeks of supply _____

Weeks of supply = _____

5. One hospital needs lighting equipment. Annual demand = 3,000 units, Setup cost = \$30 per order, Holding cost = \$.50 per unit per year. Required: Determine

- a. Optimal number of needles Q^*
- b. Expected number of needles to order N
- c. Expected time between orders T
- d. Total annual cost of needles TC

(04/04)

Solution:

- a. Optimal number of needles

$Q^* =$ _____

- b. Expected number of needles to order

Expected number of orders $T =$ _____

$=$ _____

- c. Expected time between orders

Expected time between orders $N =$ _____

$N =$ _____

- d. Total annual cost of needles

Total annual cost of needles $TC =$ _____

$TC =$ _____

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Fifth Question	No. of Branches (2)	(10/10)
Q2 B1		(03/03)

Fifth Q: Questions for students who did not provide the Mid Examination

1. Put the appropriate signal in front of the following sentences (03/03)

1.	The objective of a process strategy is to build a production process that meets customer requirements only	()
2.	location strategy is to maximize the benefit of location to the firm	()
3.	JIT systems may make Proximity to markets important to manufacturers	()
4.	Proximity to suppliers Called clustering	()
5.	Job expansion intended to reduce productivity associated with labor specialization	()
6.	HRS manage labor & design jobs so people are effectively & efficiently utilized	()

2. Can describe labor-planning policies? (05/05)

- a. _____
 a. _____
 b. _____
 c. _____
- b. _____
 1. _____
 2. _____
 3. _____
 4. _____

3. A bakery has three production lines operate seven days a week, three meals work (8 hours of work per meal). The efficiency 90% and the use rate 80% and energy-designed line 120 loaves per hour. Required: Rated Capacity (02/02)

Solution
 Operating time per line = _____
 = _____
 Rated Capacity = _____
 = _____

End of Questions
Good Luck for all