



# **Cost accounting 2**

## **Section NO. (7)**

### **Accounting for Indirect Manufacturing Costs**

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### **Example (6):**

**Production jobs in manufacturing companies pass through two production centers. If you know the following:**

**1- At the beginning of the month the company estimated that:**

<b>Desc.</b>	<b>First center</b>	<b>Second center</b>
<b>Direct labor hours</b>	<b>10,000 hours</b>	<b>6,000 hours</b>
<b>Machine hours</b>	<b>20,000 hours</b>	<b>30,000 hours</b>
<b>Direct labor cost</b>	<b>150,000 EGP</b>	<b>100,000 EGP</b>
<b>Indirect manufacturing costs</b>	<b>180,000 EGP</b>	<b>120,000 EGP</b>

**2- Direct labor cost is used to determine the allocation rate for the first center, and the machine hours for the second center.**

**3- Data related to Job number (325):**

Desc.	First center	Second center
Direct materials	250 EGP	200 EGP
Direct labors	300 EGP	400 EGP
Machine hours	20 hours	25 hours
Direct labor hours	16 hours	10 hours

**4- The number of units produced for the production job is 300 units.**

## **Required:**

- 1- Determine the estimated allocation rate of indirect manufacturing costs for each of the two production centers.**
- 2- Determine the cost of the production job number (325).**
- 3- Determine the unit cost produced from the production job.**

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**Frist : Determine the allocation rate for each production centers.**

**Allocation rate = indirect manufacturing costs ÷ allocation basis**

**1- The allocation rate of indirect manufacturing costs for the first center**

= indirect manufacturing cost for the first center ÷ direct labor cost for the first center  
= 180,000 ÷ 150,000  
= **1.20 EGP per EGP direct labor.**

**2- The allocation rate of indirect manufacturing costs for the second center**

= indirect manufacturing cost for the second center ÷ machine hours for the second center  
= 120,000 ÷ 30,000  
= **4 EGP per machine hour.**

**Second : Determine the cost of the production job No. (325) :**

Desc	First center	Second center	Total
1- Direct materials	250	200	450
2- Direct labors	300	400	700
Prime Costs	550	600	1150
3- Indirect manufacturing costs			
First center (????)	360	----	360
Second center (????)	---	100	100
Total costs of production job	910	700	1610

**MOH= allocation rate x share production job from allocation basis**

**Frist center =  $1.2 \times 300 = 360$  EGP.**

**Second center =  $4 \times 25 = 100$  EGP.**

**Third : Determine the unit cost produced from**

**Unit cost produced = total costs of production job ÷ total production units**

**= 1,610 ÷ 300**

**= 5.36 EGP per unit.**



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## Frist question : Choose the correct answer :

**1- Allocation rate - first center : .....**

<b>A</b>	<b>4 EGP per EGP direct labor.</b>
<b>B</b>	<b>1.2 EGP per EGP direct labor.</b>
<b>C</b>	<b>4 EGP per machine hour.</b>
<b>D</b>	<b>1.2 EGP per direct labor hour.</b>

**The correct answer is (B)**



## Frist question : Choose the correct answer :

**2- Allocation rate - second center : .....**

<b>A</b>	<b>4 EGP per EGP direct labor.</b>
<b>B</b>	<b>1.2 EGP per EGP direct labor.</b>
<b>C</b>	<b>4 EGP per machine hour.</b>
<b>D</b>	<b>1.2 EGP per direct labor hour.</b>

**The correct answer is (C)**

**3- Total costs of production job : .....**

<b>A</b>	<b>460 EGP.</b>
<b>B</b>	<b>1,150 EGP.</b>
<b>C</b>	<b>12,500 EGP.</b>
<b>D</b>	<b>1,610 EGP.</b>

**The correct answer is (D)**

#### 4- Prime costs of production job : .....

A	460 EGP.
B	1,150 EGP.
C	12,500 EGP.
D	1,610 EGP.

**The correct answer is (B)**

**5- Share of the production job No.(325) from the indirect manufacturing costs - first center : .....**

<b>A</b>	<b>460 EGP.</b>
<b>B</b>	<b>100 EGP.</b>
<b>C</b>	<b>360 EGP.</b>
<b>D</b>	<b>1,610 EGP.</b>

**The correct answer is (C)**

**6- Share of the production job No.(325) from the indirect manufacturing costs - second center : .....**

<b>A</b>	<b>460 EGP.</b>
<b>B</b>	<b>100 EGP.</b>
<b>C</b>	<b>360 EGP.</b>
<b>D</b>	<b>1,610 EGP.</b>

**The correct answer is (B)**

**7- Conversion costs of production job No. (325) : .....**

<b>A</b>	<b>1,160 EGP.</b>
<b>B</b>	<b>1,150 EGP.</b>
<b>C</b>	<b>460 EGP.</b>
<b>D</b>	<b>1,610 EGP.</b>

**The correct answer is (A)**

**8- Total estimated indirect manufacturing costs of Celia Co. as a whole : .....**

<b>A</b>	<b>120,000 EGP.</b>
<b>B</b>	<b>180,000 EGP.</b>
<b>C</b>	<b>460 EGP.</b>
<b>D</b>	<b>300,000 EGP.</b>

**The correct answer is (D)**

**9- Cost of unit produced from the job production No. (325) :**

<b>A</b>	<b>6.23 EGP unit.</b>
<b>B</b>	<b>5.36 EGP per direct labor hour.</b>
<b>C</b>	<b>5.36 EGP per unit.</b>
<b>D</b>	<b>1,610 EGP.</b>

**The correct answer is (C)**



**10- Total indirect manufacturing cost in production job No. (325) : .....**

<b>A</b>	<b>460 EGP.</b>
<b>B</b>	<b>100 EGP.</b>
<b>C</b>	<b>360 EGP.</b>
<b>D</b>	<b>1,610 EGP.</b>

**The correct answer is (A)**

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*Thanks*

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