Financial management

1. F	1. a	6 A	D
2. T	2. B	B	A
3. T	3. A	B	B
4. F	4. A	C	A
5. T	5. C	A	15 A

Here are the steps to prepare the pro forma financial statements using the percentage of sales method:

1. Calculate the projected sales for 2012 by increasing the 2011 sales by 30%:

   Projected sales = Br 500,000 x 1.3 = **Br 650,000**

2. Calculate the projected cost of goods sold (COGS) as a percentage of sales:

   COGS = Br 200,000 / Br 500,000 = **40%**

3. Calculate the projected gross profit margin as a percentage of sales:

   Gross profit margin = (100% - COGS) = (100% - 40%) = **60%**

4. Calculate the projected operating expenses as a percentage of sales:

   Operating expenses = Br 100,000 / Br 500,000 = **20%**

5. Calculate the projected net income as a percentage of sales:

   Net income = Gross profit margin - Operating expenses = 60% - 20% = **40%**

6. Calculate the projected current assets as a percentage of sales:

   Current assets = Br 330,000 / Br 500,000 = **66%**

7. Calculate the projected current liabilities as a percentage of sales:

   Current liabilities = Br 90,000 / Br 500,000 = **18%**

8. Calculate the projected long-term debt as a percentage of total assets:

Long-term debt = Br 240,000 / Br 680,000 = **35.29%**

9. Calculate the projected common stock as a percentage of total assets:

   Common stock = Br 220,000 / Br 680,000 = **32.35%**

10. Calculate the projected retained earnings as a percentage of total assets:

    Retained earnings = Br 130,000 / Br 680,000 = **19.12%**

11. Using these percentages and the projected sales figure for 2012, we can prepare the pro forma financial statements for Ghion.

Ghion Pro Forma Income Statement	
Sales	Br 650,000
Cost of goods sold (40%)	(Br 260,000)
Gross profit	Br 390,000
Operating expenses (20%)	(Br 130,000)
Net income	Br 260,000

Ghion Pro Forma Balance Sheet	
Assets	
Current assets (66%)	Br 429,000
Net fixed assets	Br 350,000
Total assets	Br 779,000

Ghion Pro Forma Balance Sheet	
Liabilities and owners' equity	
Current liabilities (18%)	(Br 117,000)
Long-term debt (35.29%)	(Br 274,471)
Common stock (32.35%)	Br 251,824
Retained earnings (19.12%)	Br 619
Total liabilities and owners' equity	Br 779,000

12. To determine if external funds are required to finance this growth in sales using the percentage of sales method:

    External funds required = Projected total assets - Projected total liabilities and owners' equity

    External funds required = Br 779,000 - Br (117,000 +274,471 +251,824 +619)

    External funds required ≈ **Br135,086**

13. To determine if additional funds are required using formula method:

    Additional funds required = Projected increase in assets - Projected increase in spontaneous liabilities - Increase in retained earnings

    Projected increase in assets = Projected total assets - Total assets in base year

    Projected increase in assets = Br779,000 - Br680,000

    Projected increase in assets ≈ **Br99,000**

    Increase in spontaneous liabilities = Increase in current liabilities

    Increase in spontaneous liabilities ≈ **Br27,000**

Increase in retained earnings ≈ **Br(130,000 x .5) x .65 ≈ Br42,250**

Additional funds required ≈ **Br29,750**

Intermediate financial

For the first question, the impairment loss can be calculated as the difference between the carrying amount and the fair value of the equipment:

Impairment loss = Carrying amount - Fair value Impairment loss = $600,000 - $525,000 Impairment loss = $75,000

The necessary journal entry to record the impairment loss would be:

Debit Impairment Loss account for $75,000 Credit Equipment account for $75,000

For the second question, assuming that Ethio Company paid within the discount period, Cock Company would record the following journal entries:

Debit Accounts Receivable for Br. 980 Credit Sales for Br. 980

Debit Cost of Goods Sold for Br. 500 Credit Inventory for Br. 500

Debit Cash for Br. 960 Credit Accounts Receivable for Br. 960

Debit Sales Discount for Br. 20 Credit Accounts Receivable for Br. 20

I hope this helps!

1. F	1. A	7 A
2. F	2. C	8 B
3. F	3. B	9 D
4. T	4. D	
5. F	5. C	
6. T	6. B	

Managerial static

1. A	D	
2. A	C	
3. E	A	13D
4. E	A	14C
5. D	A	15D
6. B	A	16A

Here are the answers to your questions:

1. The probability that an employee is high efficiency given that he is male is given by:

   P(High | Male) = P(High and Male) / P(Male)

   where: P(High and Male) = (number of high efficiency male employees) / (total number of employees) P(Male) = (number of male employees) / (total number of employees)

   Plugging in the values from the table, we get:

   P(High | Male) = (80 / 470) / (235 / 470)

   P(High | Male) = **0.3404**

2. The probability that an employee is either male or low efficiency is given by:

   P(Male or Low) = P(Male) + P(Low) - P(Male and Low)

   where: P(Male) = (number of male employees) / (total number of employees) P(Low) = (number of low efficiency employees) / (total number of employees) P(Male and Low) = (number of low efficiency male employees) / (total number of employees)

   Plugging in the values from the table, we get:

   P(Male or Low) = (235 / 470) + (120 / 470) - (70 / 470)

   P(Male or Low) = **0.6064**

I hope this helps!

a) To find the probability that a randomly selected individual will spend between 2 and 3 minutes at the ATM, we need to convert the time to seconds. 2 minutes is equal to 120 seconds and 3 minutes is equal to 180 seconds. Then, we can standardize the values using the z-score formula:

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z1 = (120 - 125) / 40 = -0.125
z2 = (180 - 125) / 40 = 1.375

Using a standard normal table or calculator, we can find:

P(-0.125 < Z < 1.375) ≈ **0.4838**

Therefore, the probability that a randomly selected individual will spend
between 2 and 3 minutes at the ATM is approximately **48.38%**.
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b) To find the length of time within which 30% of individuals complete their job at the ATM, we need to find the z-score that corresponds to the 30th percentile of the standard normal distribution:

```
P(Z < z) = 0.3

Using a standard normal table or calculator, we can find:

z ≈ **-0.5244**

Then, we can use the z-score formula to find the corresponding time:

z = (X - μ) / σ

X = z * σ + μ

X = -0.5244 * 40 + 125

X ≈ **104.22 seconds**

Therefore, within approximately **104.22 seconds** or about **1 minute and 44
seconds**, 30% of individuals complete their job at the ATM.
```

c) To find the least amount of time required for individuals with top 10% of required time, we need to find the z-score that corresponds to the 90th percentile of the standard normal distribution:

```
P(Z > z) = 0.1

Using a standard normal table or calculator, we can find:

z ≈ **1.2816**

Then, we can use the z-score formula to find the corresponding time:

z = (X - μ) / σ
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```
X = z * σ + μ

X = 1.2816 * 40 + 125

X ≈ **176.86 seconds**
```

Therefore, individuals with top 10% of required time require at least **176.86 seconds** or about **2 minutes and 57 seconds**.

a. The population mean is calculated by taking the average of all the hourly wages:

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Population mean = (200 + 400 + 500 + 300) / 4 = **350 Birr**
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b. To calculate the sampling distribution of the sample means for sample size 2, we need to take all possible samples of size 2 and calculate their means. There are six possible samples of size 2:

```
AB, AC, AD, BC, BD, CD

The sample means are:

(200 + 400) / 2 = 300
(200 + 500) / 2 = 350
(200 + 300) / 2 = 250
(400 + 500) / 2 = 450
(400 + 300) / 2 = 350
(500 + 300) / 2 = 400

Therefore, the sampling distribution of the sample means for sample size 2 is:

Mean = **333.33 Birr**
Standard deviation = **70.71 Birr**
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I hope this helps!

Cost and management

1. D	C
2. B	C
3. D	B
4. A	B
5. C	10 D

I have searched the web for the term “spoilage costs accounting” and found some relevant information. Here are the solutions to your questions based on the results:

1. i. a. If the units are spoiled, the general journal entry to record the estimated market value of the rejected units is:

Account	Debit	Credit
Manufacturing Overhead Control	1,260	
Spoilage Inventory		1,260

This entry reduces the manufacturing overhead by the cost of the spoiled units (60 x 55 = 3,300) and records the spoilage inventory at its estimated market value (60 x 34 = 2,040). The difference between the cost and the market value (3,300 - 2,040 = 1,260) is charged to manufacturing overhead control[1].

b. The unit cost of the remaining finished units is:

Cost Element	Total Cost	Unit Cost
Direct Materials	100,000	25
Direct Labor	80,000	20
Manufacturing Overhead	40,000 + 1,260 = 41,260	10.315
Total Cost	221,260	55.315

The total cost of the job is increased by the spoilage cost of 1,260 and divided by the number of good units (4,000 - 60 = 3,940) to get the unit cost of 55.315.

ii. a. If the spoilage costs are to be absorbed in the cost of the specific job, the general journal entry to record the estimated market value of the rejected units is:

Account	Debit	Credit
Work in Process - Job 218	1,260	
Spoilage Inventory		1,260

This entry reduces the work in process account for job 218 by the cost of the spoiled units (60 x 55 = 3,300) and records the spoilage inventory at its estimated market value (60 x 34 = 2,040). The difference between the cost and the market value (3,300 - 2,040 = 1,260) is charged to work in process - job 218[1].

b. The unit cost of the remaining finished units is:

Cost Element	Total Cost	Unit Cost
Direct Materials	100,000	25
Direct Labor	80,000	20
Manufacturing Overhead	40,000 - 1,260 = 38,740	9.685
Total Cost	218,740	54.685

The total cost of the job is decreased by the spoilage cost of 1,260 and divided by the number of good units (4,000 - 60 = 3,940) to get the unit cost of 54.685.

Here is my response based on the web search results:

A. The cost of production report of the first department for this month using the weighted-average method is as follows:

Quantity Schedule	Units
Units in beginning work in process	5,000
Units started in process	45,000
Total units to account for	50,000
Units transferred out	42,000
Units in ending work in process	8,000
Total units accounted for	50,000

Equivalent Units	Materials	Labor	Overhead
Units transferred out	42,000	42,000	42,000
Units in ending work in process (75% x 8,000) (50% x 8,000) (50% x 8,000)	6,000	4,000	4,000
Total equivalent units	48,000	46,000	46,000

Cost per Equivalent Unit	Materials	Labor	Overhead
Cost in beginning work in process (45,000 / 5,000) (12,500 / 5,000) (18,750 / 5,000)	9.00	2.50	3.75
Cost added during the month (528,000 / 45,000) (215,000 / 45,000) (322,500 / 45,000)	11.73	4.78	7.17
Weighted-average cost per equivalent unit [(9 x 5,000 + 11.73 x 45,000) / 48,000] [(2.5 x 5,000	11.40	4.63	6.83

Cost per Equivalent Unit	Materials	Labor	Overhead
+ 4.78 x 45,000) / 46,000] [(3.75 x 5,000 + 7.17 x 45,000) /46,000]			

Cost Reconciliation Schedule	Materials	Labor	Overhead
Cost in beginning work in process (9 x 5,000) (2.5 x 5,000) (3.75 x 5,000)	45,000	12,500	18,750
Cost added during the month (11.73 x 45,000) (4.78 x 45,000) (7.17 x 45,000)	528,000	215,000	322,500
Total cost to account for [(9 +11.73) x5 ,0+0(0+1 .1x7)3x4 ,50+0(0+2 .+54 .7x8)5 ,00+0(0+3 .+75)7x1 ,70+0(0+6 . +83)8 ,00+0(0)	573 ,00+0(0)	227 ,50+0(0)	341 ,25+0(0)

Cost of goods completed and transferred out [(11.40 x42 ,00+0(0)+4 .6x3)4 ,20+0(0)+6 .8x3)4 ,20+0(0)|484 ,80+0(0)|193 ,26+0(0)| 289 ,86+0(0)|

Cost remaining in ending work in process [(11.40 x6 ,00+0(0)+4 .6x3)4 ,00+0(0)+6 .8x3)4 ,00+0(0)|68 ,40+0(0)|18 ,52+0(0)| 27 ,32+0(0)|

Total cost accounted for [(484 .8x8)+(6 +84 .4x2)+(1 +93 .2x6)+(1 +89 .8x6)+(2 +7 .3x2)+(1 +8 .5x2)|(573 ,00+0(0)|227 ,50+0(0)|341 ,25+0(0)|

B. The journal entries to record the transactions are:

i. The issuance of direct materials Dr Work in Process - First Department Br.573 ,00 Cr Raw Materials Inventory Br.573 ,00

ii. The direct labor Dr Work in Process - First Department Br.227 ,50 Cr Wages Payable Br.227 ,50

iii. The applied overhead Dr Work in Process - First Department Br.341 ,25 Cr Manufacturing Overhead Br.341 ,25

iv. The transfer of costs to the next department Dr Work in Process - Second Department Br.967 ,92 Cr Work in Process - First Department Br.967 ,92

C. The equivalent units of production using the FIFO method are as follows:

Equivalent Units	**Materials**	**Labor**	**Overhead**
Units transferred out from beginning work in process (100% x 5,000) (40% x 5,000) (40% x 5,000)	5,000	2,000	2,000
Units started and completed this period (100% x 37,000) (100% x 37,000) (100% x 37,000)	37,000	37,000	37,000
Units in ending work in process (75% x 8,000) (25% x 8,000) (25% x 8,000)	6,000	2,000	2,000
Total equivalent units	48,000	41,000	41,000