6 Accounting for materials 53 mins

6.1 Which of the following functions are fulfilled by a goods received note (GRN)?

(i) Provides information to update the inventory records on receipt of goods
(ii) Provides information to check the quantity on the supplier's invoice
(iii) Provides information to check the price on the supplier's invoice

A (i) and (ii) only
B (i) and (iii) only
C (ii) and (iii) only
D (i) only **(2 marks)**

6.2 There are 27,500 units of Part Number X35 on order with the suppliers and 16,250 units outstanding on existing customers' orders.

If the free inventory is 13,000 units, what is the physical inventory?

A 1,750
B 3,250
C 24,250
D 29,250 **(2 marks)**

The following information relates to questions 6.3 and 6.4.

A domestic appliance retailer with multiple outlets sells a popular toaster known as the Autocrisp 2000, for which the following information is available:

Average sales	75 per day
Maximum sales	95 per day
Minimum sales	50 per day
Lead time	12-18 days
Reorder quantity	1,750

6.3 Based on the data above, at what level of inventory would a replenishment order be issued?

A 600 units
B 1,125 units
C 1,710 units
D 1,750 units **(2 marks)**

6.4 Based on the data above, what is the maximum inventory level?

A 1,750 units
B 2,275 units
C 2,860 units
D 2,900 units **(2 marks)**

6.5 The annual demand for an item of inventory is 2,500 units. The cost of placing an order is $80 and the cost of holding an item in stock for one year is $15. What is the economic order quantity, to the nearest unit?

A 31 units
B 115 units
C 163 units
D 26,667 units **(2 marks)**

6.6 Which of the following is correct with regard to inventories?

(i) Stock-outs arise when too little inventory is held

(ii) Safety inventories are the level of units maintained in case there is unexpected demand

(iii) A re-order level can be established by looking at the maximum usage and the maximum lead-time

A (i) and (ii) only
B (i) and (iii) only
C (ii) and (iii) only
D (i), (ii) and (iii) **(2 marks)**

6.7 What is the economic batch quantity used to establish?

Optimal

A reorder quantity
B recorder level
C order quantity
D inventory level for production **(2 marks)**

6.8 The demand for a product is 12,500 units for a three month period. Each unit of product has a purchase price of $15 and ordering costs are $20 per order placed.

The annual holding cost of one unit of product is 10% of its purchase price.

What is the Economic Order Quantity (to the nearest unit)?

A 577
B 816
C 866
D 1,155 **(2 marks)**

6.9 A company determines its order quantity for a raw material by using the Economic Order Quantity (EOQ) model.

What would be the effects on the EOQ and the total annual holding cost of a decrease in the cost of ordering a batch of raw material?

	EOQ	*Total annual holding cost*
A	Higher	Lower
B	Higher	Higher
C	Lower	Higher
D	Lower	Lower

(2 marks)

6.10 Data relating to a particular stores item are as follows:

Average daily usage	400 units
Maximum daily usage	520 units
Minimum daily usage	180 units
Lead time for replenishment of inventory	10 to 15 days
Reorder quantity	8,000 units

What is the reorder level (in units) which avoids stockouts (running out of inventory)?

A 5,000
B 6,000
C 7,800
D 8,000 **(2 marks)**

6.11 The material stores control account for a company for March looks like this:

MATERIAL STORES CONTROL ACCOUNT

	$		$
Balance b/d	12,000	Work in progress	40,000
Suppliers	49,000	Overhead control	12,000
Work in progress	18,000	Balance c/d	27,000
	79,000		79,000
Balance b/d	27,000		

Which of the following statements are correct?

(i) Issues of direct materials during March were $18,000
(ii) Issues of direct materials during March were $40,000
(iii) Issues of indirect materials during March were $12,000
(iv) Purchases of materials during March were $49,000

A (i) and (iv) only
B (ii) and (iv) only
C (ii), (iii) and (iv) only
D All of them **(2 marks)**

6.12 A manufacturing company uses 25,000 components at an even rate during a year. Each order placed with the supplier of the components is for 2,000 components, which is the economic order quantity. The company holds a buffer inventory of 500 components. The annual cost of holding one component in inventory is $2.

What is the total annual cost of holding inventory of the component?

A $2,000
B $2,500
C $3,000
D $4,000 **(2 marks)**

6.13 A company wishes to minimise its inventory costs. Order costs are $10 per order and holding costs are $0.10 per unit per month. Fall Co estimates annual demand to be 5,400 units.

What is the economic order quantity?

A 949 units
B 90,000 units
C 1,039 units
D 300 units **(2 marks)**

6.14 For a particular component, the re-order quantity is 6,000 units and the average inventory holding is 3,400 units.

What is the level of safety inventory (in whole units)?

A 400
B 3,400
C 3,000
D 6,400 **(2 marks)**

6.15 The following data relates to component L512:

Ordering costs	$100 per order
Inventory holding costs	$8 per unit per annum
Annual demand	1,225 units

What is the economic order quantity (to the nearest whole unit)?

A 175 units
B 62 units
C 44 units
D 124 units **(2 marks)**

6.16 The following data relate to inventory item A452:

Average usage	100 units per day
Minimum usage	60 units per day
Maximum usage	130 units per day
Lead time	20-26 days
EOQ	4,000 units

What is the maximum inventory level?

A 3,380 units
B 6,180 units
C 7,380 units
D 8,580 units **(2 marks)**

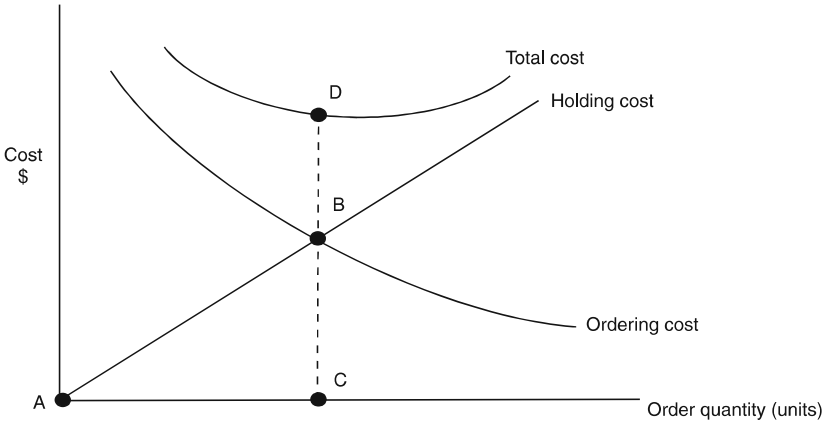
6.17 ACB Co gradually receives its re-supply of inventory at a rate of 10,000 units a week. Other information is available as follows.

Weekly demand	5,000 units
Set-up costs for each production run	$125
Weekly cost of holding one unit	$0.0025

What is the economic production run?

A 1,577 units
B 7,071 units
C 31,623 units
D 894,427 units **(2 marks)**

6.18



Where on the graph would you read off the value for the economic order quantity?

A At point A
B At point B
C At point C
D At point D **(2 marks)**

6.19 A company uses an item of inventory as follows.

Purchase price	$25 per unit
Annual demand	1,800 units
Ordering cost	$32
Annual holding cost	$4.50 per unit
EOQ	160 units

What is the minimum total cost assuming a discount of 2% given on orders of 300 and over?

A $45,720.00
B $44,953.50
C $45,000.00
D $44,967.00 **(2 marks)**

The following information relates to questions 6.20 and 6.21.

G Co makes the following purchases and sales.

1 January	Purchases	4,000 units for $10,000
31 January	Purchases	1,000 units for $2,000
15 February	Sales	3,000 units for $13,000
28 February	Purchases	1,500 units for $3,750
14 March	Sales	500 units for $1,200

6.20 At 31 March which of the following closing inventory valuations using FIFO is correct?

A $8,000
B $7,500
C $7,000
D $6,500 **(2 marks)**

6.21 At 31 March which of the following closing inventory valuations using LIFO is correct?

A $6,500
B $7,000
C $7,500
D $8,000 **(2 marks)**

6.22 A wholesaler had opening inventory of 300 units of product Emm valued at $25 per unit at the beginning of January. The following receipts and sales were recorded during January.

Date	*2 Jan*	*12 Jan*	*21 Jan*	*29 Jan*
		400		
Issues	250		200	75

The purchase cost of receipts was $25.75 per unit. Using a weighted average method of valuation, calculate the value of closing inventory at the end of January.

A $11,550
B $4,492
C $4,192
D $9,550 **(2 marks)**

(Total = 44 marks)

7 Accounting for labour 29 mins

The following information relates to questions 7.1 and 7.2

Budgeted and actual production data for the year that has just ended are as follows.

Product	*Budgeted production*		*Actual production*
	Units	Standard machine hours	Units
W	15,000	3,000	12,000
X	20,000	8,000	25,000
Y	14,000	7,000	16,000
Z	6,000	9,000	5,000

Total machine hours worked in the period amounted to 29,000 hours.

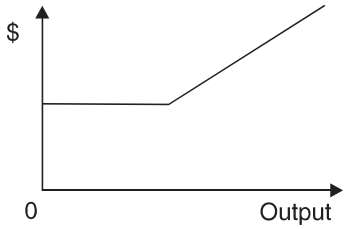
7.1 What was the capacity ratio in the year, as a percentage to one decimal place?

A 93.1%
B 103.3%
C 105.5%
D 107.4% **(2 marks)**

7.2 What was the efficiency ratio in the year, as a percentage to one decimal place?

A 96.2%
B 103.3%
C 103.9%
D 107.4% **(2 marks)**

7.3 What does the labour cost graph below depict?



A A piece rate scheme with a minimum guaranteed wage
B A straight piece rate scheme
C A straight time rate scheme
D A differential piece rate scheme **(2 marks)**

7.4 The following data relate to work in the finishing department of a certain factory.

Normal working day	7 hours
Basic rate of pay per hour	$5
Standard time allowed to produce 1 unit	4 minutes
Premium bonus payable at the basic rate	60% of time saved

On a particular day one employee finishes 180 units. What is his gross pay for the day?

A $35
B $50
C $56
D $60 **(2 marks)**

7.5 An employee is paid on a piecework basis. The basis of the piecework scheme is as follows:

1 to 100 units	–	$0.20 per unit
101 to 200 units	–	$0.30 per unit
201 to 299 units	–	$0.40 per unit

with only the additional units qualifying for the higher rates. Rejected units do not qualify for payment.

During a particular day the employee produced 210 units of which 17 were rejected as faulty.

What did the employee earn for their day's work?

A $47.90
B $54.00
C $57.90
D $63.00 **(2 marks)**

7.6 Employee A is a carpenter and normally works 36 hours per week. The standard rate of pay is $3.60 per hour. A premium of 50% of the basic hourly rate is paid for all overtime hours worked. During the last week of October, Employee A worked for 42 hours. The overtime hours worked were for the following reasons:

Machine breakdown:	4 hours
To complete a special job at the request of a customer:	2 hours

How much of Employee A's earnings for the last week of October would have been treated as direct wages?

A $162.00
B $129.60
C $140.40
D $151.20 **(2 marks)**

7.7 Which of the following statements is/are true about group bonus schemes?

(i) Group bonus schemes are appropriate when increased output depends on a number of people all making extra effort

(ii) With a group bonus scheme, it is easier to award each individual's performance

(iii) Non-production employees can be rewarded as part of a group incentive scheme

A (i) only
B (i) and (ii) only
C (i) and (iii) only
D (ii) and (iii) only **(2 marks)**

7.8 X Co has recorded the following wages costs for direct production workers for November.

	$
Basic pay	70,800
Overtime premium	2,000
Holiday pay	500
Gross wages incurred	73,300

The overtime was not worked for any specific job.

What are the accounting entries for these wages costs?

		Debit	*Credit*
		$	$
A	Work in progress account	72,800	
	Overhead control account	500	
	Wages control account		73,300
B	Work in progress account	70,800	
	Overhead control account	2,500	
	Wages control account		73,300
C	Wages control account	73,300	
	Work in progress account		70,800
	Overhead control account		2,500
D	Wages control account	73,300	
	Work in progress account		72,800
	Overhead control account		500

(2 marks)

7.9 A company had 30 direct production employees at the beginning of last year and 20 direct production employees at the end of the year. During the year, a total of 15 direct production employees had left the company to work for a local competitor. What is the labour turnover rate for last year?

A 16.7%
B 20.0%
C 25.0%
D 60.0%

(2 marks)

7.10 Jane works as a member of a three-person team in the assembly department of a factory. The team is rewarded by a group bonus scheme whereby the team leader receives 40 per cent of any bonus earned by the team, and the remaining bonus is shared evenly between Jane and the other team member. Details of output for one day are given below.

Hours worked by team	8 hours
Team production achieved	80 units
Standard time allowed to produce one unit	9 minutes
Group bonus payable at $6 per hour	70% of time saved

What is the bonus element of Jane's pay for this particular day?

A $5.04
B $7.20
C $10.08
D $16.80

(2 marks)

7.11 In a typical cost ledger, what is the double entry for indirect labour cost incurred?

A	DR	Wages control	CR	Overhead control
B	DR	Admin overhead control	CR	Wages control
C	DR	Overhead control	CR	Wages control
D	DR	Wages control	CR	Admin overhead control

(2 marks)

7.12 A company has 4,000 staff at the start of 20X6 and at the end this had reduced to 3,800 due to redundancies being made. 210 staff took voluntary redundancy which was 10 more than the company had anticipated and these 10 employees were replaced.

What is the labour turnover rate per year?

A 0.26%
B 5.38%
C 25.64%
D 5.13%

(2 marks)

(Total = 24 marks)

Question 1

A large retailer with multiple outlets maintains a central warehouse from which the outlets are supplied. The following information is available for Part Number SF525.

Average usage	350 per day
Minimum usage	180 per day
Maximum usage	420 per day
Lead time for replenishment	11-15 days
Re-order quantity	6,500 units
Re-order level	6,300 units

(a) Based on the data above, what is the maximum level of inventory?

A 5,250 B 6,500 C 10,820 D 12,800

(b) Based on the data above, what is the approximate number of Part Number SF525 carried as buffer inventory?

A 200 B 720 C 1,680 D 1,750

Question 2

Suppose a company purchases raw material at a cost of $16 per unit. The annual demand for the raw material is 25,000 units. The holding cost per unit is $6.40 and the cost of placing an order is $32.

Calculate the total cost (Annual holding cost + Annual ordering cost) for order quantities of 300 units, 500 units and 800 units.

Question 3

The annual demand for an item of inventory is 45 units. The item costs $200 a unit to purchase, the holding cost for one unit for one year is 15% of the unit cost and ordering costs are $300 an order.

The supplier offers a 3% discount for orders of 60 units or more, and a discount of 5% for orders of 90 units or more.

Required

Calculate the cost-minimising order size.

Question 4

Shown below is an extract from records for inventory code no 988988.

	Receipts			*Issues*			*Balance*		
Date	*Qty*	*Value* $	*Total* $	*Qty*	*Value* $	*Total* $	*Qty*	*Value* $	*Total* $
5 June							30	2.50	75
8 June	20	3.00	60						
10 June				10		**A**			
14 June				20		**B**			
18 June	40	2.40	96						
20 June				6		**C**			**D**

(a) The values that would be entered on the stores ledger card for A, B, C and D in a cumulative weighted average pricing system would be:

A $ ____ C $ ____

B $ ____ D $ ____

(b) The values that would be entered on the stores ledger card for A, B, C and D in a LIFO system would be:

A $ ____ C $ ____

B $ ____ D $ ____