Student name:\_\_\_\_\_\_\_\_\_\_

**MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.  
1)** Selling goods and services on credit is:

1) \_\_\_\_\_\_

A) an investment in a customer.   
 B) never necessary unless customers cannot pay for the goods.  
 C) a decision independent of customers.  
 D) permissible only if your bank lends the money.  
 E) never a wise decision.

**2)** When one firm grants credit to another firm, a(n) \_\_\_\_\_\_\_\_ is created, which is called:

2) \_\_\_\_\_\_

A) account receivable; consumer credit.   
 B) credit due; an installment note.  
 C) account receivable; trade credit.  
 D) trade receivable; an installment note.  
 E) trade receivable; a secured loan.

**3)** The average \_\_\_\_\_\_\_\_ is called the average collection period.

3) \_\_\_\_\_\_

A) time necessary to collect a credit sale   
 B) number of customers per day who charge their purchases  
 C) time for a credit customer to return to make a second purchase  
 D) number of times a credit customer charges a purchase during a year  
 E) number of items purchased in each credit transaction

**4)** The three components of credit policy are:

4) \_\_\_\_\_\_

A) collection policy, credit analysis, and interest rate determination.   
 B) collection policy, credit analysis, and terms of the sale.  
 C) collection policy, interest rate determination, and repayment analysis.  
 D) credit analysis, repayment analysis, and terms of the sale.  
 E) interest rate determination, repayment analysis, and terms of sale.

**5)** Credit analysis is best described as the process of:

5) \_\_\_\_\_\_

A) collecting an accounts receivable.   
 B) determining the optimal credit terms.  
 C) establishing the length of the credit period.  
 D) setting the amount of discount to be granted.  
 E) determining the probability that a customer will not pay.

**6)** Seasonal dating is used to promote sales during the off-season. This process involves:

6) \_\_\_\_\_\_

A) extending the credit period until after the season ends.   
 B) extending both the discount period and the credit period by two months.  
 C) accepting orders early but withholding shipment until the peak season.  
 D) accepting orders early but dating the invoice when the goods are actually shipped.  
 E) dating an invoice at a later date than when the goods are shipped.

**7)** If a customer is extended credit terms of 1/5, net 15, it means the customer has been granted a:

7) \_\_\_\_\_\_

A) 1/5 percent discount for paying within 15 days.   
 B) five percent discount for paying the next day.  
 C) total credit period of 20 days.  
 D) credit period of 10 days.  
 E) one percent discount for paying within five days.

**8)** The credit period begins on the:

8) \_\_\_\_\_\_

A) shipping date.   
 B) purchase order date.  
 C) shipping arrival date.  
 D) order process date.  
 E) invoice date.

**9)** On June 1, a firm invoices a customer and offers terms of 2/10 net 30. The customer:

9) \_\_\_\_\_\_

A) must pay a penalty of 2/10 of one percent if payment is made later than July 1.   
 B) must pay a penalty of 10 percent if payment is made later than 2 days after July 1.  
 C) receives a discount of 2 percent if payment is made at least 10 days prior to July 1.  
 D) receives a discount of 2 percent if payment is made on June 1 and pays a penalty of 10 percent if payment is made after July 1.  
 E) receives a discount of 2 percent if payment is made within 10 days.

**10)** The length of the credit period offered by a firm is influenced by all of the following factors *except* the:

10) \_\_\_\_\_\_

A) level of consumer demand.   
 B) buyer’s operating cycle.  
 C) standardization of the goods being sold.  
 D) FTC guidelines for trade credit.  
 E) customer type.

**11)** Seasonal dating of accounts receivable:

11) \_\_\_\_\_\_

A) is used by all firms that grant credit.   
 B) sets the first date of the relevant season as the final due date for an invoice for seasonal goods.  
 C) sets a relevant seasonal date as the invoice date for an earlier order.  
 D) refers to firms that invoice every quarter for sales made in the prior three months.  
 E) requires all purchasers of seasonal goods to have their purchases paid by the end of the prior season.

**12)** With regard to considerations firms use when establishing a credit policy, which one of the following statements is *false?*

12) \_\_\_\_\_\_

A) A firm that supplies a perishable product will tend to offer restrictive credit terms.   
 B) A firm whose customers are in a high-risk business will tend to offer restrictive credit terms.  
 C) Lengthening the credit period effectively reduces the price paid by the customer.  
 D) Small accounts, associated with firms that find it difficult to acquire a line of credit, tend to receive longer credit periods.  
 E) Larger accounts tend to receive more favorable credit terms.

**13)** The upper limit to the credit period is best expressed as the length of the:

13) \_\_\_\_\_\_

A) seller’s operating cycle.   
 B) seller’s cash cycle.  
 C) seller’s payables period.  
 D) buyer’s operating cycle.  
 E) buyer’s cash cycle.

**14)** Cash discounts:

14) \_\_\_\_\_\_

A) increase the amount of credit offered.   
 B) increase profit margins on sales.  
 C) speed up the collection of receivables.  
 D) were first offered in the early 1900s.  
 E) are a cost-free means of increasing sales.

**15)** With an open account the formal instrument of credit is the:

15) \_\_\_\_\_\_

A) purchase order.   
 B) invoice.  
 C) promissory note.  
 D) banker’s acceptance.  
 E) secured loan document.

**16)** Which one of the following statements is true regarding promissory notes?

16) \_\_\_\_\_\_

A) Most trade credit arrangements use promissory notes.   
 B) Promissory notes are used when firms do not anticipate a problem with collections.  
 C) Promissory notes usually involve no cash discount.  
 D) A promissory note must be signed and delivered prior to goods being shipped.  
 E) Promissory notes are used for small orders only.

**17)** A commercial draft typically:

17) \_\_\_\_\_\_

A) specifies the payment amount and payment due date.   
 B) specifies that the purchaser use the seller’s bank as the guarantor.  
 C) requires payment prior to the delivery of the goods.  
 D) is signed upon delivery of the goods.  
 E) involves a lien on the purchasers’ current assets.

**18)** Which one of the following statements is *false*?

18) \_\_\_\_\_\_

A) Commercial drafts represent a way to obtain a credit commitment from a customer before the goods are delivered.   
 B) When a banker’s acceptance is discounted in the secondary market it becomes a commercial note.  
 C) Sight drafts require immediate payment.  
 D) Banker’s acceptances arise when a bank guarantees payment on a commercial draft.  
 E) A commercial draft becomes a trade acceptance once the buyer accepts the draft and promises to pay.

**19)** Which one of the following statements accurately describes a characteristic of a conditional sales contract?

19) \_\_\_\_\_\_

A) The seller retains legal ownership until the buyer completes payment for the goods.   
 B) The buyer is compensated for its opportunity costs.  
 C) The seller receives a prepayment in full.  
 D) The invoice is paid in one lump sum at the end of the credit period.  
 E) The ownership of the goods changes to the buyer immediately upon delivery.

**20)** The net credit period for a company with terms of 3/10, net 60 is:

20) \_\_\_\_\_\_

A) 3 days.   
 B) 10 days.  
 C) 20 days.  
 D) 6 days.  
 E) 60 days.

**21)** The decision to grant credit should consider all the following *except* the:

21) \_\_\_\_\_\_

A) delay in revenues from granting credit.   
 B) immediate costs of granting credit.  
 C) probability of nonpayment.  
 D) cost of short-term borrowing.  
 E) fixed costs incurred during the credit period.

**22)** When analyzing the NPV of a decision to switch from a cash-only sales policy to a credit policy with an early payment discount, a firm is *least* likely to consider the:

22) \_\_\_\_\_\_

A) size of the discount.   
 B) length of the credit period.  
 C) firm’s variable costs.  
 D) expected change in sales.  
 E) fixed salaries of the sales force.

**23)** When analyzing the decision to change the cash discount policy, a firm should select the policy that has the:

23) \_\_\_\_\_\_

A) highest order size.   
 B) lowest variable cost per unit.  
 C) lowest NPV.  
 D) highest NPV.  
 E) lowest cash discount.

**24)** An analyst has graphed the costs of granting credit relative to the amount of credit extended. The optimal credit amount is determined by the point that:

24) \_\_\_\_\_\_

A) minimizes the total cost curve.   
 B) maximizes the carrying costs associated with granting credit.  
 C) maximizes the opportunity costs associated with granting credit.  
 D) minimizes the carrying costs of granting credit.  
 E) minimizes the opportunity costs of granting credit.

**25)** Determining the optimal credit policy is based on a trade-off between the carrying costs of granting credit and the:

25) \_\_\_\_\_\_

A) lost profits from refusing credit.   
 B) cash flows delayed from granting credit.  
 C) opportunity cost of the delayed payments.  
 D) variable costs associated with the delayed payments.  
 E) present value of uncollected sales.

**26)** One key reason for establishing a captive finance company is the:

26) \_\_\_\_\_\_

A) reduction of legal restrictions on the amount of debt that can be incurred.   
 B) increased opportunities for internal sales.  
 C) lower level of required financial insurance.  
 D) anticipated decrease in accounts receivable.  
 E) expected decrease in the cost of the debt required to finance receivables.

**27)** All the following resources are sources of credit information about a customer *except:*

27) \_\_\_\_\_\_

A) the customer’s financial statements.   
 B) credit reports.  
 C) the customer’s current payment history with the seller.  
 D) the amount of goods the customer desires to purchase.  
 E) banks.

**28)** Because the credit decision usually includes riskier customers, the decision should adjust for this by:

28) \_\_\_\_\_\_

A) determining the probability of nonpayment and reducing the expected cash flows accordingly.   
 B) discounting the net cash flows at a lower discount rate.  
 C) discounting the cash inflows at a higher discount rate.  
 D) increasing the variable cost per unit.  
 E) decreasing the variable cost per unit.

**29)** All the following items are one of the “five *C*s of credit” *except:*

29) \_\_\_\_\_\_

A) capability.   
 B) capacity.  
 C) capital.  
 D) character.  
 E) conditions.

**30)** Which one of the following statements is *false*?

30) \_\_\_\_\_\_

A) An aging schedule includes only overdue accounts.   
 B) Aging schedules are used to monitor accounts receivable.  
 C) If sales are seasonal, the percentages shown on an aging schedule will vary during the year.  
 D) Collection efforts may involve legal action.  
 E) Investments in accounts receivable equal average daily sales times average collection period.

**31)** During the process of collecting accounts receivable, a firm can perform all the following actions *except:*

31) \_\_\_\_\_\_

A) send a delinquency letter of past due status to the customer.   
 B) make personal contact by telephone.  
 C) employ a collection agency.  
 D) take legal action against the customer as necessary.  
 E) forcibly remove property from the buyer’s premises.

**32)** Windshield glass purchased by an automaker and sitting on a shelf ready for use is classified as:

32) \_\_\_\_\_\_

A) finished goods inventory.   
 B) raw materials.  
 C) assembly materials.  
 D) work-in-progress.  
 E) partial-goods inventory.

**33)** Which one of the following statements is correct?

33) \_\_\_\_\_\_

A) Finished goods are classified as a commodity.   
 B) Work-in-progress may have less resell value than the individual component parts did.  
 C) Raw materials that are considered to be a commodity are generally illiquid.  
 D) Raw materials consist of only those goods that are found in nature.  
 E) Finished goods are highly liquid because they are completed.

**34)** All of the following items are carrying costs of inventory *except*:

34) \_\_\_\_\_\_

A) storage costs.   
 B) insurance.  
 C) restocking costs.  
 D) theft.  
 E) the opportunity cost of capital.

**35)** The basic assumption of the ABC approach to inventory management is that:

35) \_\_\_\_\_\_

A) inventory should be divided dependent on the type of cash or credit sale anticipated.   
 B) most items are ordered, stocked, and sold in a relatively short period of time.  
 C) firms should receive a customer’s order before incurring inventory costs.  
 D) a small portion of inventory represents a large portion of inventory costs.  
 E) firms should always be consistent in the amount of inventory ordered.

**36)** At the optimal inventory level, the:

36) \_\_\_\_\_\_

A) inventory is held to its daily minimum level.   
 B) inventory is maintained at a level equal to one week’s production needs.  
 C) carrying costs equal the restocking costs.  
 D) inventory opportunity costs are zero.  
 E) shortage costs are eliminated.

**37)** The EOQ model considers all the following factors *except* the:

37) \_\_\_\_\_\_

A) cost of the inventory.   
 B) carrying cost.  
 C) fixed cost of an order.  
 D) restocking cost.  
 E) annual sales units.

**38)** The EOQ model assumes inventory:

38) \_\_\_\_\_\_

A) is held at a constant level.   
 B) is sold at a steady rate until it is depleted.  
 C) will be available just as it is needed for production.  
 D) has seasonal fluctuations.  
 E) can be delivered immediately upon order.

**39)** The minimum level of inventory a firm wants to keep on hand at all times is referred to as:

39) \_\_\_\_\_\_

A) the base level.   
 B) safety stock.  
 C) the opportunity cost.  
 D) the reorder point.  
 E) keiretsu.

**40)** The total restocking cost is calculated as:

40) \_\_\_\_\_\_

A) Fixed cost per order × Number of orders.   
 B) Order size × Variable cost per unit.  
 C) Carrying costs + Fixed costs.  
 D) Number of orders × Variable cost per unit.  
 E) Fixed cost per unit × Average inventory.

**41)** The reorder point considers all the following factors *except* the:

41) \_\_\_\_\_\_

A) safety stock.   
 B) variable costs per unit.  
 C) delivery time.  
 D) minimum desired inventory level.  
 E) rate of sales.

**42)** The first step in materials requirements planning is to establish the:

42) \_\_\_\_\_\_

A) desired minimum raw materials inventory level.   
 B) finished goods inventory level.  
 C) cost of each order.  
 D) delivery time required for each type of raw material.  
 E) value of each inventory item as a percent of total inventory.

**43)** For a JIT inventory system to be efficient, the:

43) \_\_\_\_\_\_

A) inventory must have an independent demand.   
 B) firm’s suppliers must be able to deliver goods quickly upon order.  
 C) managers must limit production each day to a set quantity.  
 D) firm must be a reseller of goods, not a manufacturer.  
 E) supplying firm must be a subsidiary of the ordering firm.

**44)** Shahzur Restaurant Group has an account receivable balance of $573,600 and the average collection period is 24 days. What are the firm’s credit sales per day?

44) \_\_\_\_\_\_

A) $37,716.16   
 B) $23,900.00  
 C) $87,235.00  
 D) $15,271.97  
 E) $65,931.03

**45)** Reddy Plumbing Supply has accounts receivable of $1,876,000 and average daily credit sales of $63,970. The firm offers credit terms of 2/10, net 30. On average, what is the firm’s accounts receivable period?

45) \_\_\_\_\_\_

A) 29.33 days   
 B) 80.35 days  
 C) 12.45 days  
 D) 146.63 days  
 E) 34.10 days

**46)** If 34 percent of customers pay on Day 10 and the remainder pay, on average, on Day 28, what is the average collection period?

46) \_\_\_\_\_\_

A) 19.72 days   
 B) 20.08 days  
 C) 21.88 days  
 D) 18.47 days  
 E) 22.09 days

**47)** Torres Resurfacing mailed an invoice today in the amount of $1,268 with terms of 2/7 net 30. What is the cost of credit to the customer if the customer pays on the last day of the credit period? Assume a 365-day year.

47) \_\_\_\_\_\_

A) 41.02%   
 B) 39.62%  
 C) 37.80%  
 D) 37.56%  
 E) 39.40%

**48)** Sway Tailors currently has credit terms of net 30, an average collection period of 29 days, and average receivables of $211,410. The firm estimates that if it offered terms of 2/10, net 30 that 45 percent of its customers would pay on Day 10 with the remainder paying on average in 32 days. How much cash could the company free up from its accounts receivables if it switched its credit policy?

48) \_\_\_\_\_\_

A) $38,762   
 B) $50,301  
 C) $64,219  
 D) $58,336  
 E) $65,009

**49)** Saavedra Upholstery sold $22,500 of merchandise on credit yesterday. They sent the invoice to the customer today with the terms of 3/10 net 40. This particular customer typically pays on the net date. What is the effective rate of interest the customer is paying by not taking the discount? Assume a 365-day year.

49) \_\_\_\_\_\_

A) 42.31%   
 B) 44.86%  
 C) 39.27%  
 D) 40.54%  
 E) 45.38%

**50)** Alphonso’s has an all-cash policy and sells 50 units per month at $920 a unit. The variable cost is $700 a unit. Should the firm grant 30 days of credit, it expects its sales would rise to 60 units without changes to price or cost per unit. The monthly required return is .75 percent. What is the NPV of switching to a credit policy?

50) \_\_\_\_\_\_

A) $266,667   
 B) $346,333  
 C) $366,667  
 D) $240,333  
 E) $258,778

**51)** Assume Atlantic Fish sells 3,200 pounds of fish per month at a price of $2.90 a pound. The variable cost per pound is $2.22. Currently, the firm has a cash-only sales policy. The firm is considering changing to a net 30 credit policy. The monthly required return is 1.2 percent. What does the new level of sales need to be to break even on the switch?

51) \_\_\_\_\_\_

A) 3,219.40 pounds   
 B) 3,489.67 pounds  
 C) 3,370.44 pounds  
 D) 170.44 pounds  
 E) 119.40 pounds

**52)** Velez Company sells 2,600 units per month for cash at a price of $299 a unit and a variable cost of $187 a unit. The firm estimates it can increase its sales by 200 units per month if it switches to a net 30 credit policy while keeping its price and costs at their current levels. If the monthly cost of capital is .85 percent, what is the NPV of switching?

52) \_\_\_\_\_\_

A) $1,590,005   
 B) $1,394,008  
 C) $1,211,036  
 D) $1,820,494  
 E) $2,006,413

**53)** Dourian Supply has been approached by a new customer who has asked the firm to extend credit for 30 days on a one-time purchase of $499. The firm's required return on receivables is 1.8 percent per month and the variable cost of the desired item is $327. What is the NPV of granting credit if the firm estimates the probability of default is 15 percent?

53) \_\_\_\_\_\_

A) $62.93   
 B) $108.40  
 C) $89.65  
 D) $94.15  
 E) $76.67

**54)** Harbin, Incorporated, is willing to offer credit on a one-time purchase provided the NPV of the transaction is at least $50 at a required monthly return of 2 percent. Assume a potential sale has a sales price of $248 and a variable cost of $164. What is the maximum probability of default that will result in an acceptable offer?

54) \_\_\_\_\_\_

A) 32.55%   
 B) 29.62%  
 C) 11.98%  
 D) 10.02%  
 E) 18.50%

**55)** Jackson Lumber assumes new customers will default 8 percent of the time, but if they don’t default, they will become repeat customers who always pay their bills. Assume the average sale is $383 with a variable cost of $260, and a monthly required return of 1.65 percent. What is the NPV of extending credit for one month to a new customer?

55) \_\_\_\_\_\_

A) $5,589.09   
 B) $6,103.47  
 C) $6,598.18  
 D) $5,748.09  
 E) $6,858.18

**56)** Monroy Custom Fixtures is a new firm that sells a product with a variable cost of $62 a unit. The firm has a monthly required return of 1.8 percent. The firm wants to offer all new customers 30 days of credit and expects that if it does so, that 12 percent will default on payment while the others become repeat customers. What is the minimum price the firm could charge to break even on an NPV basis?

56) \_\_\_\_\_\_

A) $82.15   
 B) $74.09  
 C) $63.27  
 D) $98.14  
 E) $78.40

**57)** Tiny Home Goods, Incorporated, orders 15,000 units at a time and sells 413,600 units per year 15,000. The cost of placing an order is $32.60. What is the firm’s annual total restocking cost?

57) \_\_\_\_\_\_

A) $126.87   
 B) $118.23  
 C) $845.81  
 D) $898.89  
 E) $767.52

**58)** The total cost of holding inventory at Irrinki Irrigation is $9,600 when its order sizes are optimized. If the firm places 68 orders per year, what is the fixed cost per order?

58) \_\_\_\_\_\_

A) $141.18   
 B) $282.35  
 C) $70.83  
 D) $35.42  
 E) $70.59

**59)** Skyward Climbing has total annual sales of 438,000 units, a carrying cost per unit of $2.67 per year, and restocking costs of $48 per order. What is the EOQ?

59) \_\_\_\_\_\_

A) 4,203 units   
 B) 3,824 units  
 C) 3,968 units  
 D) 4,126 units  
 E) 4,511 units

**60)** Romero Products has total annual sales of 846,000 units, a carrying cost per unit of $1.64 per year, and restocking costs of $31 per order. Each inventory item has an average cost of $2.39. What is the average dollar value of the firm's inventory if it always orders the most economical quantity?

60) \_\_\_\_\_\_

A) $6,758   
 B) $7,008  
 C) $7,409  
 D) $6,218  
 E) $6,411

**ESSAY. Write your answer in the space provided or on a separate sheet of paper.  
61)** Identify several factors that affect the length of the credit period and provide an explanation of each.

**62)** Green Garden is a cash-only company. The company is considering switching to a 30-day credit policy with no discounts. What factors should the firm consider before making the switch?

**63)** Uptown Markets recently did an analysis of its credit policy and considered several different options. Once the analysis was completed and reviewed, the firm adopted the most optimal policy. The president then stated: “Now, that’s done. So we don’t ever have to go through that process again.” Do you agree? Justify your answer.

**64)** There are generally considered to be five key factors that should be evaluated when trying to determine if a customer will pay. Write five questions that a credit manager should answer when reviewing a credit application that would address these factors.

**65)** Explain how inventory is managed under an ABC inventory system.

**66)** Explain the purpose of a safety stock and how this relates to reorder points.

**Answer Key**Test name: Chapter 28

1) A

2) C

3) A

4) B

5) E

6) E

7) E

8) E

9) E

10) D

11) C

12) D

13) D

14) C

15) B

16) C

17) A

18) B

19) A

20) E

21) E

22) E

23) D

24) A

25) A

26) E

27) D

28) A

29) A

30) A

31) E

32) B

33) B

34) C

35) D

36) C

37) A

38) B

39) B

40) A

41) B

42) B

43) B

44) B

Daily credit sales = Accounts receivable/Average collection period  
 Daily credit sales = $573,600/24  
 Daily credit sales = $23,900.00

45) A

Accounts receivable period = Accounts receivable/Average daily sales  
 Accounts receivable period = $1,876,000/$63,970  
 Accounts receivable period = 29.33 days

46) C

ACP = .34(10) + .66(28)  
 ACP = 21.88 days

47) C

Rate for 23 days = .02($1,268)/[(1 − .02)($1,268)]  
 Rate for 23 days = .020408  
   
 EAR = 1.020408(365/23) − 1  
 EAR = .3780, or 37.80%

48) B

Average daily sales = Accounts receivable/Average collection period  
 Average daily sales = $211,410/29  
 Average daily sales = $7,290  
   
 New average collection period = .45(10) + .55(32)  
 New average collection period = 22.10 days  
   
 New accounts receivable = Average daily sales (Average collection period)  
 New accounts receivable = $7,290(22.10)  
 New accounts receivable = $161,109  
   
 Cash freed up = Old accounts receivable − New accounts receivable  
 Cash freed up = $211,410 − 161,109  
 Cash freed up = $50,301

49) B

Rate for 30 days = .03($22,500)/[(1 − .03)($22,500)]  
 Rate for 30 days = .030928  
   
 EAR = 1.030928(365/30) − 1  
 EAR = .4486, or 44.86%

50) D

NPV of switching = −[*PQ* + *v*(*Q*’ − *Q*)] + [(*P −* *v*)(*Q*’ *−* *Q*)]/*R*   
 NPV of switching = −[$920(50) + $700(60 − 50)] + [($920 − 700)(60 − 50)]/.0075  
 NPV of switching = $240,333

51) C

NPV = −[*PQ* + *v*(*Q’* − *Q*)] + [(*P* − *v*)(*Q’* − *Q*)]/*R*  
 0 = −[$2.90(3,200) + $2.22(*Q*’ − *Q*)] + [($2.90 − 2.22)(*Q’* − *Q*)]/.012  
 *Q’* − *Q* = 170.44  
   
 *Q’* = *Q* + (*Q’* − *Q*)  
 *Q’* = 3,200 + 170.44  
 *Q’* = 3,370.44

52) D

NPV = −[*PQ* + *v*(*Q’*  − *Q*)] + [(*P* − *v*)(*Q’*  − *Q*)]/*R*  
 NPV = −[$299(2,600) + $187(200)] + [($299 − 187)(200)]/.0085  
 NPV= $1,820,494

53) C

NPV = −*v* + (1 − *π*)*P*/(1 + *R*)  
 NPV = −$327 + (1 − .15)($499)/1.018  
 NPV = $89.65

54) C

NPV = −*v* + (1 − *π*)*P*/(1 + *R*)  
 $50 = −$164 + (1 − *π*)($248)/1.02  
 *π* = .1198, or 11.98%

55) C

NPV = −*v* + (1 − *π*)(*P −* *v*)/*R*  
 NPV = −$260 + (1 − .08)($383 − 260)/.0165  
 NPV = $6,598.18

56) C

NPV = −*v* + (1 − *π*)(*P* − *v*)/*R*  
 0 = −$62 + (1 − .12)(*P* − $62)/.018  
 *P* = $63.27

57) D

Total restocking cost = Fixed cost per order (Number of orders)  
 Total restocking cost = $32.60(413,600/15,000)  
 Total restocking cost = $898.89

58) E

At the optimal order size, carrying costs equal restocking costs. Thus, restocking costs equal 50 percent of the total costs of holding inventory.  
   
 Total restocking cost = .50(Total costs) = Fixed cost per order(Number of orders)  
 Fixed cost per order = .50($9,600)/68  
 Fixed cost per order = $70.59

59) C

*Q*\* = (2*TF*/CC).5  
 *Q*\* = [2(438,000)($48)/$2.67].5  
 *Q*\* = 3,968 units

60) A

*Q*\* = (2*TF*/CC).5  
 *Q*\* = [2(846,000)($31)/$1.64].5  
 *Q*\* = 5,655 units  
   
 Average inventory value = (*Q*\*/2)(Cost per unit)  
 Average inventory value = (5,655/2)($2.39)  
 Average inventory value = $6,758

61) The length of the credit period is affected by:  
 1.Perishability and collateral value: The credit period should be less than the life of the item being financed. For example, if bananas have a shelf life of one-week then the credit period should probably be one week or less.  
 2.Consumer demand: The credit period should be inversely related to consumer demand. In other words, the higher the demand, the shorter the credit period.  
 3.Cost, profitability, and standardization: The greater the standardization and the lower the cost, generally the shorter the credit period.  
 4.Credit risk: As with any risk, the less exposure to it the better. Thus, the higher the risk, the shorter the credit period.  
 5.Size of the account: The larger the account size the longer the credit period that may be granted, especially if an account represents a significant portion of a firm’s sales.  
 6.Competition: In a competitive market, credit periods may be extended as a means of gaining sales.  
 7.Customer type: The type of customer and their operating cycle will influence the credit period. Some sellers are willing to finance a buyer’s inventory period and maybe even its accounts receivable period, but not beyond.

62) The firm should consider the price it can charge for credit sales, any anticipated changes in sales quantity, and the delay of one-month in collections. There is also no guarantee that payment will ever be received. The firm must also consider their product costs which will still be incurred prior to sale. With the delay in collections and potential need for additional inventory the firm must consider its financing costs as its cash cycle will increase.

63) You should not agree. The optimal credit policy and the NPV of any policy are based on variables such as carrying and opportunity costs that can, and do, change over time. Therefore, credit policy analysis should be considered an on-going process rather than a one-time event.

64) Here is one set of sample questions:  
 1.Character: Is the customer willing to pay his/her bills?  
 2.Capacity: Does the customer have sufficient cash flow to be able to pay his/her bills?  
 3.Capital: Does the customer have sufficient financial assets to support this debt?  
 4.Collateral: Does the customer have assets, either the item being purchased, or other items, of sufficient value that could be sold to repay this debt?  
 5.Conditions: Is the economic and business outlook for the customer’s business favorable for the repayment of the customer’s debts?

65) With an ABC system the items that represent the largest percentage of inventory value are classified as Group A items. Because of their cost, these items are monitored closely and purchased primarily as needed, with minimal, if any, units kept as extra stock. Items of low value are classified as Group C items. These tend to be basic commodity items that are bought in bulk and kept on hand at all times. Group B items fall between these two extremes and are managed accordingly.

66) Safety stock is the term used for the minimum level of inventory that a firm keeps on hand. This stock is available to the firm should an inventory order be delayed or an unexpected increase in production arise. Reorder points are set at a level such that the ordered inventory should arrive just as the inventory is reduced to its safety stock level. Thus, by determining when inventory will fall to the safety stock level and then backing out the order delivery time, the reorder points can be identified.