**Chapter 15: Inventory Management**

**Practice Problems**

**MULTIPLE CHOICE**

Richardson Stationary Supplies is planning on a major expansion. In order for this expansion to proceed smoothly they are reevaluating their operations policies. One area that is of concern is the inventory policies. They gathered the following pieces of data for 2015.

|  |  |
| --- | --- |
| Sales | $620,000 |
| Beginning Inventory | $101,500 |
| Ending Inventory | $98,700 |
| Cost of Goods Sold | $498,000 |

1. What was Richardson's average inventory for 2015?

|  |  |
| --- | --- |
| a. | $ 98,700 |
| b. | $100,100 |
| c. | $101,500 |
| d. | $200,200 |

ANS: B PTS: 1 DIF: Easy

2. What was Richardson's inventory turnover for 2015?

|  |  |
| --- | --- |
| a. | 2.36 |
| b. | 3.87 |
| c. | 4.98 |
| d. | 5.12 |

ANS: C PTS: 1 DIF: Medium

3. What was Richardson's cost of day’s sales for 2015?

|  |  |
| --- | --- |
| a. | $1,364.38 |
| b. | $1,445.12 |
| c. | $1,675.43 |
| d. | $2,008.75 |

ANS: A PTS: 1 DIF: Medium

4. What was Richardson's days of inventory for 2015?

|  |  |
| --- | --- |
| a. | 45.87 |
| b. | 56.32 |
| c. | 61.64 |
| d. | 73.37 |

ANS: D PTS: 1 DIF: Medium

Chompers Dental supplies has a new operations manager. She is reviewing Chompers operations policies. Chompers is planning on opening in a new geographic area in 2016. In anticipation of the increased demand, they acquired more inventory. The new operations manager wants to see if the new acquisitions are excessive. In 2015, Chompers sales were $3,678,900 while the cost of goods sold was $2,087,623. Their beginning inventory in 2015 was $467,500 and their ending inventory was $536,800.

5. What was Chompers average inventory for 2015?

|  |  |
| --- | --- |
| a. | $467,500 |
| b. | $502,150 |
| c. | $523,150 |
| d. | $536,800 |

ANS: B PTS: 1 DIF: Easy

6. What was Chompers turnover inventory for 2015?

|  |  |
| --- | --- |
| a. | 4.16 |
| b. | 5.87 |
| c. | 6.07 |
| d. | 6.76 |

ANS: A PTS: 1 DIF: Medium

7. What was Chompers cost of day’s sales inventory for 2015?

|  |  |
| --- | --- |
| a. | $5,719.52 |
| b. | $6,783.11 |
| c. | $7,237.23 |
| d. | $7,586.03 |

ANS: A

Difficulty Level: Medium

PTS: 1

8. What was Chompers days of inventory for 2015?

|  |  |
| --- | --- |
| a. | 65.98 |
| b. | 73.78 |
| c. | 76.19 |
| d. | 87.80 |

ANS: D PTS: 1 DIF: Medium

Kaskoff Fabrications is looking into acquiring Melton Manufacturing. They're looking closely at Melton's financial records. Data for the years 2014 and 2015 on Melton’s performance is provided below.

|  |  |  |
| --- | --- | --- |
|  | 2014 | 2015 |
| Sales | $50,256,700 | $52,090,765 |
| Beginning Inventory | $6,780,340 | $6,540,380 |
| Ending Inventory | $6,540,380 | $6,772,890 |
| Cost of Goods Sold | $32,890,340 | $34,120,700 |

9. What was Melton's average inventory in 2014?

|  |  |
| --- | --- |
| a. | $6,598,450 |
| b. | $6,623,120 |
| c. | $6,640,360 |
| d. | $6,660,360 |

ANS: D PTS: 1 DIF: Easy

10. What was Melton's average inventory in 2015?

|  |  |
| --- | --- |
| a. | $6,623,880 |
| b. | $6,656,635 |
| c. | $6,660,610 |
| d. | $6,666,040 |

ANS: B PTS: 1 DIF: Easy

11. What was Melton's inventory turnover in 2014?

|  |  |
| --- | --- |
| a. | 3.83 |
| b. | 4.34 |
| c. | 4.85 |
| d. | 4.94 |

ANS: D PTS: 1 DIF: Medium

12. What was Melton's inventory turnover in 2015?

|  |  |
| --- | --- |
| a. | 5.13 |
| b. | 5.91 |
| c. | 6.28 |
| d. | 7.04 |

ANS: A PTS: 1 DIF: Medium

13. What could be said about the change in Melton's inventory turnover from 2014 and 2015?

|  |  |
| --- | --- |
| a. | Inventory turnover remained the same. |
| b. | Inventory turnover improved in 2015. |
| c. | Inventory turnover declined in 2015. |
| d. | Given the increase in sales, in effect, inventory turnover remained the same. |

ANS: B PTS: 1 DIF: Hard

14. What was Melton's cost of day’s sales in 2014?

|  |  |
| --- | --- |
| a. | $86,410.48 |
| b. | $90,110.52 |
| c. | $93,481.37 |
| d. | $96,992.69 |

ANS: B PTS: 1 DIF: Medium

15. What was Melton's days of inventory in 2014?

|  |  |
| --- | --- |
| a. | 68.83 |
| b. | 70.34 |
| c. | 71.85 |
| d. | 73.91 |

ANS: D PTS: 1 DIF: Medium

16. What was Melton's days of inventory in 2015?

|  |  |
| --- | --- |
| a. | 71.21 |
| b. | 73.91 |
| c. | 74.28 |
| d. | 76.04 |

ANS: A PTS: 1 DIF: Medium

Xebex Technologies has a division called Futile Resistors. It is considering an overhaul of Futile Resistors’ operations or moving Futile overseas. Inventory management is receiving considerable attention. Xebex collected data for the years 2014, 2015, and a forecast for 2016. This data is provided below.

|  |  |  |  |
| --- | --- | --- | --- |
|  | 2014 | 2015 | Projected 2016 |
| Sales | $127,890,000 | $148,900,000 | $192,340,000 |
| Beginning Inventory | $3,897,234 | $5,467,983 | $6,183,230 |
| Ending Inventory | $5,467,983 | $6,183,230 | $4,654,129 |
| Cost of Goods Sold | $16,876,400 | $20,376,548 | $22,346,786 |

17. What was Futile Resistors’ average inventory for 2014?

|  |  |
| --- | --- |
| a. | $4,567,982 |
| b. | $4,682,609 |
| c. | $4,893,921 |
| d. | $5,023,256 |

ANS: B PTS: 1 DIF: Medium

18. What was Futile Resistors’ average inventory for 2015?

|  |  |
| --- | --- |
| a. | $4,682,609 |
| b. | $5,134,860 |
| c. | $5,418,680 |
| d. | $5,825,607 |

ANS: D PTS: 1 DIF: Medium

19. What would be the forecasted Futile Resistors’ average inventory for 2016?

|  |  |
| --- | --- |
| a. | $4,682,609 |
| b. | $5,134,860 |
| c. | $5,418,680 |
| d. | $5,825,607 |

ANS: C PTS: 1 DIF: Medium

20. What could be accurately said for Futile Resistors’ average inventory across 2014 to 2016?

|  |  |
| --- | --- |
| a. | Given the changing sales level, it was essentially the same across the three years. |
| b. | The average inventory steadily declined. |
| c. | The average inventory rose and then declined. |
| d. | The average inventory steadily increased. |

ANS: C PTS: 1 DIF: Medium

21. What was Futile Resistors’ inventory turnover for 2014?

|  |  |
| --- | --- |
| a. | 3.3 |
| b. | 3.6 |
| c. | 3.9 |
| d. | 4.2 |

ANS: B PTS: 1 DIF: Medium

22. What was Futile Resistors’ inventory turnover for 2015?

|  |  |
| --- | --- |
| a. | 3.5 |
| b. | 3.8 |
| c. | 4.2 |
| d. | 4.5 |

ANS: A PTS: 1 DIF: Medium

23. What would be the forecasted Futile Resistors’ inventory turnover for 2016?

|  |  |
| --- | --- |
| a. | 3.5 |
| b. | 3.8 |
| c. | 3.9 |
| d. | 4.1 |

ANS: D PTS: 1 DIF: Medium

24. What could be accurately said for Futile Resistors’ inventory turnover across 2014 to 2016?

|  |  |
| --- | --- |
| a. | Given the changing sales level, it was essentially the same across the three years. |
| b. | The inventory turnover steadily declined. |
| c. | The inventory turnover rose and then declined. |
| d. | The inventory turnover declined and then increased. |

ANS: D PTS: 1 DIF: Hard

25. What would be Futile Resistors’ cost of day’s sales for 2014?

|  |  |
| --- | --- |
| a. | $44,467.21 |
| b. | $46,236.71 |
| c. | $49,328.76 |
| d. | $53,762.89 |

ANS: B PTS: 1 DIF: Medium

26. What would be Futile Resistors’ cost of day’s sales for 2015?

|  |  |
| --- | --- |
| a. | $46,236.71 |
| b. | $49,328.76 |
| c. | $53,487.65 |
| d. | $55,826.16 |

ANS: D PTS: 1 DIF: Medium

27. What would be the forecasted Futile Resistors’ cost of day’s sales for 2016?

|  |  |
| --- | --- |
| a. | $55,672.81 |
| b. | $58,934.67 |
| c. | $61,224.07 |
| d. | $67,821.03 |

ANS: C PTS: 1 DIF: Medium

28. What would be Futile Resistors’ days of inventory for 2014?

|  |  |
| --- | --- |
| a. | 98.76 |
| b. | 99.01 |
| c. | 101.27 |
| d. | 103.42 |

ANS: C PTS: 1 DIF: Medium

29. What would be Futile Resistors’ days of inventory for 2015?

|  |  |
| --- | --- |
| a. | 101.27 |
| b. | 104.35 |
| c. | 106.21 |
| d. | 108.56 |

ANS: B PTS: 1 DIF: Medium

30. What would be the forecasted Futile Resistors’ days of inventory for 2016?

|  |  |
| --- | --- |
| a. | 88.51 |
| b. | 98.76 |
| c. | 99.01 |
| d. | 100.28 |

ANS: A PTS: 1 DIF: Medium

31. What could be accurately said for Futile Resistors’ days of inventory across 2014 to 2016?

|  |  |
| --- | --- |
| a. | It steadily rose. |
| b. | It steadily declined. |
| c. | It rose and then declined. |
| d. | It declined and then rose. |

ANS: C PTS: 1 DIF: Hard

Precision Pottery produces small lots of objet d’art. They are planning an expansion in 2016. The bank that might provide the loan for the expansion requested the following.

|  |  |  |
| --- | --- | --- |
|  | 2014 | 2015 |
| Sales | $2,563,781 | $3,013,962 |
| Beginning Inventory | $675,261 | $729,765 |
| Ending Inventory | $729,765 | $768,534 |
| Cost of Goods Sold | $1,126,582 | $1,265,382 |

32. What was Precision Pottery’s average inventory for 2014?

|  |  |
| --- | --- |
| a. | $702,513 |
| b. | $712,345 |
| c. | $718,876 |
| d. | $720,112 |

ANS: A PTS: 1 DIF: Easy

33. What was Precision Pottery’s average inventory for 2015?

|  |  |
| --- | --- |
| a. | $702,513 |
| b. | $722,982 |
| c. | $738,276 |
| d. | $749,150 |

ANS: D PTS: 1 DIF: Easy

34. What was Precision Pottery’s inventory turnover for 2014?

|  |  |
| --- | --- |
| a. | 1.48 |
| b. | 1.56 |
| c. | 1.60 |
| d. | 1.69 |

ANS: C PTS: 1 DIF: Medium

35. What was Precision Pottery’s inventory turnover for 2015?

|  |  |
| --- | --- |
| a. | 1.48 |
| b. | 1.56 |
| c. | 1.60 |
| d. | 1.69 |

ANS: D PTS: 1 DIF: Medium

36. What was Precision Pottery’s cost of days sales for 2014?

|  |  |
| --- | --- |
| a. | $2,865.42 |
| b. | $3,086.53 |
| c. | $3,127.99 |
| d. | $3,376.21 |

ANS: B PTS: 1 DIF: Medium

37. What was Precision Pottery’s cost of days sales for 2015?

|  |  |
| --- | --- |
| a. | $3,112.54 |
| b. | $3,376.21 |
| c. | $3,466.80 |
| d. | $3,502.23 |

ANS: C PTS: 1 DIF: Medium

38. What was Precision Pottery’s days of inventory for 2014?

|  |  |
| --- | --- |
| a. | 203.4 |
| b. | 211.7 |
| c. | 220.7 |
| d. | 227.6 |

ANS: D PTS: 1 DIF: Medium

39. What was Precision Pottery’s days of inventory for 2015?

|  |  |
| --- | --- |
| a. | 202.3 |
| b. | 216.1 |
| c. | 227.6 |
| d. | 231.3 |

ANS: B PTS: 1 DIF: Medium

40. If in 2016 Precision Pottery’s average inventory was $769,267, what was its Ending Inventory in that year?

|  |  |
| --- | --- |
| a. | $770,000 |
| b. | $772,234 |
| c. | $778,982 |
| d. | $781,892 |

ANS: A PTS: 1 DIF: Hard

41. If in 2016 Precision Pottery’s cost of goods was $1,687,452, what was the inventory turnover in that year?

|  |  |
| --- | --- |
| a. | 1.69 |
| b. | 1.76 |
| c. | 2.03 |
| d. | 2.19 |

ANS: D PTS: 1 DIF: Hard

Melchior Manufacturing produces a number of products for the containerized cargo industry. They gathered the following information on their inventory.

|  |  |  |
| --- | --- | --- |
| Product | Unit Cost | Volume |
| 1 | $1.75 | 125,000 |
| 2 | $20.25 | 6,900 |
| 3 | $6.75 | 34,909 |
| 4 | $2.90 | 156,700 |
| 5 | $31.98 | 2,450 |
| 6 | $2.98 | 98,200 |
| 7 | $4.50 | 26700 |
| 8 | $3.75 | 34,205 |

42. Based on this data, what products would be considered A class inventory?

|  |  |
| --- | --- |
| a. | 1, 4 |
| b. | 1, 4, 5 |
| c. | 1, 3, 6 |
| d. | 2, 4, 6 |

ANS: C PTS: 1 DIF: Hard

43. Based on this data, what products would be considered B class inventory?

|  |  |
| --- | --- |
| a. | 2 |
| b. | 2, 4 |
| c. | 2, 4, 5 |
| d. | 3 |

ANS: A PTS: 1 DIF: Hard

44. Based on this data, what products would be considered C class inventory?

|  |  |
| --- | --- |
| a. | 4, |
| b. | 4, 5 |
| c. | 5 |
| d. | 5, 6 |

ANS: B PTS: 1 DIF: Hard

Gringer’s Plastics provides plastic parts to the shipbuilding industry. They gathered the following information on their inventory.

|  |  |  |
| --- | --- | --- |
| Product | Unit Cost | Volume |
| 1 | $12.50 | 11,200 |
| 2 | $325.00 | 160 |
| 3 | $9.75 | 23,786 |
| 4 | $8.50 | 29,590 |
| 5 | $175.60 | 80 |
| 6 | $1,125.99 | 26 |
| 7 | $756.25 | 41 |
| 8 | $24.99 | 5,230 |
| 9 | $109.25 | 98 |
| 10 | $33.00 | 7,865 |
| 11 | $6.75 | 3,489 |
| 12 | $550.80 | 26 |

45. Based on this data, what products would be considered A class inventory?

|  |  |
| --- | --- |
| a. | 1, 2, 4, 7 |
| b. | 1, 3, 4, 10 |
| c. | 2, 4, 7 |
| d. | 2, 3, 4, 8 |

ANS: B PTS: 1 DIF: Hard

46. Based on this data, what products would be considered B class inventory?

|  |  |
| --- | --- |
| a. | 2, 5, 6 |
| b. | 2, 5, 6, 8 |
| c. | 2, 6, 7, 8 |
| d. | 3, 5, 7, 11 |

ANS: C PTS: 1 DIF: Hard

47. Based on this data, what products would be considered C class inventory?

|  |  |
| --- | --- |
| a. | 3, 5, 10, 11 |
| b. | 4, 7, 10, 11 |
| c. | 5, 9, 11, 12 |
| d. | 6, 7, 10, 12 |

ANS: C PTS: 1 DIF: Hard

Lithgood Electronics is a major subcontractor for a number of jet engine manufacturers. They gathered the following information on their inventory.

|  |  |  |
| --- | --- | --- |
| Product | Unit Cost | Volume |
| 1 | $12.50 | 11,200 |
| 2 | $325.00 | 160 |
| 3 | $9.75 | 23,786 |
| 4 | $8.50 | 29,590 |
| 5 | $175.60 | 80 |
| 6 | $1,125.99 | 26 |
| 7 | $756.25 | 41 |
| 8 | $24.99 | 5,230 |
| 9 | $109.25 | 98 |
| 10 | $33.00 | 7,865 |
| 11 | $6.75 | 3,489 |
| 12 | $550.80 | 26 |

48. Based on this data, what products would be considered A class inventory?

|  |  |
| --- | --- |
| a. | 1, 2, 4 |
| b. | 1, 3, 6, 8 |
| c. | 1, 3, 4, 6 |
| d. | 2, 4, 7 |

ANS: C PTS: 1 DIF: Hard

49. Based on this data, what products would be considered B class inventory?

|  |  |
| --- | --- |
| a. | 1, 5, 7 |
| b. | 1, 3, 7 |
| c. | 2, 4, 6 |
| d. | 2, 8 |

ANS: D PTS: 1 DIF: Hard

50. Based on this data, what products would be considered C class inventory?

|  |  |
| --- | --- |
| a. | 5, 6, 8 |
| b. | 5, 7 |
| c. | 5, 7, 8 |
| d. | 6, 8 |

ANS: B PTS: 1 DIF: Hard