Case 12-4

Hemo-Tech Inc.

Part I

Hemo-Tech Inc. ("Hemo") manufactures and sells specialized medical equipment and services to physicians and hospitals. The equipment is used to extract and store blood samples from patients. Hemo is currently marketing its latest equipment model, BIO-07, which includes Hemo's new patented technology that significantly improves sample collection efficiency and reduces contamination risk to a low level. Hemo is the only company in the United States that sells this type of equipment with the next-generation technology. Hemo's domestic competitors sell equipment that is largely the same as Hemo's older equipment model, BIO-02.

Hemo entered into a contractual arrangement with Extract Co. ("Extract"). Extract operates several hospitals in Region X. Below is a term sheet that summarizes the arrangement, which also includes various excerpts from the sales agreement.

Equipment and Services Agreement

This agreement is effective as of July 1, 20X1 (the "Effective Date"), by Hemo-Tech Inc. ("Hemo") and Extract Co. ("Extract"). Whereas, Hemo manufactures and sells equipment, model BIO-07, used for extracting and storing blood samples; whereas, Hemo sells related supplies and services; whereas, Hemo agrees to provide such products and services as specified in Article 1 on an exclusive basis to Extract within Region X for a term of five years; and whereas, Extract desires to purchase such products and services in exchange for compensation as specified in Article 2.

Article 1: Products and Services

1.1 *Equipment*. Hemo will deliver five units of BIO-07 (the "Equipment") to Extract no later than 15 days after the Effective Date. Extract may purchase additional units subject to separately negotiated purchase orders. Each unit will be delivered with five detailed product manuals.

1.2 *Equipment Supplies*. Hemo will deliver 50 boxes of supplies with the Equipment. Extract may purchase additional boxes at a discount of 33 percent off the list price for a period of three years after the Effective Date.

1.3 *Monitor and Test Services*. Hemo will monitor and test the Equipment on a weekly basis to ensure that each unit is operating as outlined in the product manual and in accordance with FDA safety guidelines for a period of one year. Extract has the option to extend these services on an annual basis over each of the remaining four years of the original term.

1.4 *Screen and Report Services*. Hemo will screen and report results on all of Extract's blood samples for a period of three years. Hemo will maintain a duplicate copy of such results for a period of one year after screening.

Article 2: Compensation

2.1 *Initial Payment*. Extract shall pay to Hemo the sum of $4.5 million upon execution of this agreement.

2.2 *Annual Payment*. Extract shall pay to Hemo the sum of $1 million per year for screen and report services.

2.3 *Optional Payment*. In the event Extract renews the monitor and test services, Extract shall pay to Hemo the sum of $600,000 upon each annual renewal.

2.4 *Optional Payment*. Extract shall pay to Hemo the sum of $2,000 for each box of supplies ordered by Extract in excess of the 50 boxes initially delivered.

Article 3: Responsibilities

3.1 *Installation*. Hemo will install the Equipment no later than 15 days after delivery.

3.2 *Technology Improvements*. Hemo will replace the digital monitors included in the Equipment if and when improved technology is available for a period of five years after the Effective Date. Hemo has no obligation to further develop or improve the technology.

Article 4: Warranties and Representations

4.1 *Warranty*. Hemo warrants that the Equipment will operate in all material respects in conformity with the specifications outlined in the product manual for a period of one year following installation. In the event the Equipment does not operate accordingly, Hemo will repair or replace the Equipment.

4.2 *Safety Representation*. Hemo represents that the Equipment and supplies comply with FDA safety standards and regulations. In the event regulations change during the three years after the Effective Date, Hemo will modify the Equipment or supplies to comply with the new regulations.

Additional Case Facts

- Extract negotiated the exclusivity provision because it believed having early access to the new technology will provide a significant benefit in its recruiting efforts to attract physicians and highly skilled nurses. Extract does not expect that the exclusivity will

provide any direct benefit to its revenue since equipment type is not a factor in patients' health care considerations.

- If Hemo develops new technology, Hemo estimates that the cost to update and replace the digital monitors, including future research and development (R&D) costs would be significant. However, Hemo asserts that it does not have any plans to upgrade the technology within the next five years.

- The FDA has an enforcement department dedicated to blood and blood products. It has historically modified safety standards every two to three years. The last change was one year ago. Hemo did have to modify the previous version of its equipment because of an FDA requirement. These modifications related to certain equipment features that caused sample contamination and unreliable results. Hemo believes that it has reduced the risk of contamination to an extremely low level because of the current model's advanced technology.

Required:

Hemo identified the five units of equipment, 50 boxes of equipment supplies, installation, one-year monitor and test services, and three-year screen and report services as deliverables in the arrangement. Has Hemo identified all the potential deliverables in the arrangement? If not, what are the other potential deliverables? Explain how you determined whether an item is a deliverable**.**

Part II

Additional Case Facts

- **Equipment** — Hemo does not sell the equipment separately from installation or monitor and test services. Hemo has two competitors: (1) Competitor A sells equipment on a standalone basis that is largely the same as Hemo's BIO-02 model for $605,000 and is located in the same region as Hemo; and (2) Competitor B sells equipment on a standalone basis that is largely the same as the BIO-07 equipment for $815,000 and is located in China. Competitor B sells its equipment exclusively to government-run hospitals in China. Medical equipment in China is traditionally 20 to 40 percent more expensive than in the United States because of the lack of competition and scarcity of high-tech medical products. Hemo's estimate of selling price for the equipment on a standalone basis is $625,000 per unit and is based on the following information.

  Hemo's cost to manufacture the equipment is $500,000 per unit, which includes $450,000 of labor and materials costs and $50,000 of allocated R&D costs. Hemo developed its estimate of $50,000 per unit based on the amount of R&D expenditures incurred to develop the BIO-07 equipment, divided by the estimated number of total units of BIO-07 to be sold. Hemo normally prices its products based on manufacturing and R&D costs. Hemo's BIO-02 model that was sold in similar bundled arrangements was historically priced at a 20 percent margin, which Hemo believes is consistent with other companies in its industry. Hemo's

target margin is 25 percent for its BIO-07 equipment on a standalone basis. Hemo believes it can demand a higher margin as a result of the advanced technology and lack of competition. In addition, Hemo performed a market study and determined that its next-generation technology will provide customers with approximately 5 to 10 percent of cost savings over the life of the equipment, which is a result of improved efficiencies in the sample collection process and reductions in contamination risk. These estimates of cost savings are included in Hemo's marketing materials. Accordingly, Hemo believes it is reasonable to assume that customers will pay approximately 3 percent more for the BIO-07 model compared to what Competitor A is charging for its comparable BIO-02 model (calculated as $625,000 – $605,000, or $20,000/$605,000).

- **Discount on Future Supplies** — Hemo sells the supplies separately for $3,000 per box. Competitor A sells largely interchangeable supplies that can be used with Hemo's equipment separately for $2,750. Hemo is aware of another vendor that sells the supplies in a bundled arrangement for $2,400. That competitor's supplies are compatible with Hemo's equipment; however, they do not include the enhanced features within Hemo's supplies that reduce the time it takes to extract and store the blood samples. On the basis of Hemo's experience with its customers that are similar in size to Extract, Hemo expects Extract to purchase 240 boxes in the first year and 380 boxes in each of the second and third years.

- **Screen and Report Services** — In the last 12 months, Hemo had 100 separate sales of screen and report services. The median price for these services was $730,000 per year. Hemo has significant variability in its pricing compared to its competitors because it prices these services on the basis of a variety of factors, including the amount of equipment purchased by the respective customer, the size and location of the customer, and the strategic significance of the customer. In addition, because the screen and report services are typically high-margin services, Hemo's sales force is given significant latitude in pricing. The range of pricing is as follows:

  - 30 percent of customers paid approximately 50 percent below the median price.
  - 10 percent of customers paid approximately 25 percent below the median price.
  - 30 percent of customers paid the median price.
  - 15 percent of customer paid approximately 25 percent above the median price.
  - 15 percent of customer paid approximately 50 percent above the median price.

  Hemo expects the minimum number of samples each year will be 1,000 and the maximum will be 3,000. Hemo's best estimate of actual samples is 2,000. Hemo has two close competitors that provide similar services to similar customers, and those competitors can provide screen and report services for Hemo's equipment. Competitor X charges between $375 and $400 per screen. Competitor Y charges

$700,000 per year plus an additional $250 per screen for each screen that exceeds 1,500 samples in a given year. Competitors X and Y are in the business of selling these services and do not manufacture equipment.

Required:

In order to allocate arrangement consideration to all the deliverables identified, Hemo needs to determine the selling price for each deliverable. Should Hemo use vendor-specific objective evidence (VSOE), third-party evidence (TPE), or its best estimate of the selling price (ESP) to determine the selling price of the following deliverables: (1) equipment, (2) discount on future supplies, and (3) screen and report services?

Part III

Required:

What accounting literature would Hemo look to under IFRSs to answer the above accounting questions?