1. B is correct. Permot has the highest percentage of floating-coupon bonds and inflation-linked bonds. Bonds with floating coupons protect interest income from inflation because the reference rate should adjust for inflation. Inflation-linked bonds protect against inflation by paying a return that is directly linked to an index of consumer prices and adjusting the principal for inflation. Inflation-linked bonds protect both coupon and principal payments against inflation.
The level of inflation protection for coupons = % portfolio in floating-coupon bonds + % portfolio in inflation-linked bonds:
Aschel = 2% + 3% = 5%
Permot = 34% + 28% = 62%
Rosaiso = 17% + 21% = 38%
Thus, Permot has the highest level of inflation protection with 62% of its portfolio in floating-coupon and inflation-linked bonds.

2. B is correct. The rolling yield is the sum of the yield income and the rolldown return. Yield income is the sum of the bonds annual current yield and interest on reinvestment income. Perreaux assumes that there is no reinvestment income for any of the three funds, and the yield income for Aschel will be calculated as follows:
Yield income = Annual average coupon payment/Current bond price
= $3.63/$117.00
= 0.0310, or 3.10%

The rolldown return is equal to the bond's percentage price change assuming an unchanged yield curve over the horizon period. The rolldown return will be calculated as follows:

$$\text{Rolldown return} = \frac{\left(\text{Bond price}_{\text{End-of-horizon period}} - \text{Bond price}_{\text{Beginning-of-horizon period}}\right)}{\text{Bond price}_{\text{Beginning-of-horizon period}}}$$
$$= \frac{(\$114.00 - \$117.00)}{\$117.00}$$
$$= -0.0256, \text{ or } -2.56\%$$

Rolling yield = Yield income + Rolldown return = 3.10% - 2.56% = 0.54%

3. B is correct. The return for Aschel is 7.71%, calculated as follows:

$$r_P = \frac{\left(r_I \times (V_E + V_B) - V_B \times r_B\right)}{V_E}$$
$$= r_I + \frac{V_B}{V_E}(r_I - r_B)$$
$$= 6.20\% + \frac{\$42.00 \text{ million}}{\$94.33 \text{ million}}(6.20\% - 2.80\%)$$
$$= 7.71\%$$

4. C is correct. Rosaiso is the only fund that holds bonds with embedded options. Effective duration should be used for bonds with embedded options. For bonds with embedded options, the duration and convexity measures used to calculate the expected change in price based on the

investor's views of yields and yield spreads are effective duration and effective convexity. For bonds without embedded options, convexity and modified duration are used in this calculation.

5. B is correct. Cash flow matching has no yield curve or interest rate assumptions. With this immunization approach, cash flows come from coupon and principal repayments that are expected to match and offset liability cash flows. Because bond cash inflows are scheduled to coincide with liability cash payouts, there is no need for reinvestment of cash flows. Thus, cash flow matching is not affected by interest rate movements. Cash flows coming from coupons and liquidating bond portfolio positions is a key feature of a duration-matching approach.

6. A is correct. The optimal strategy for Villash is the sale of 100% of Bond 1, which Perreaux considers to be overvalued. Because Villash is a tax-exempt foundation, tax considerations are not relevant and Perreaux's investment views drive her trading recommendations.

7. B is correct. The domestic bond portfolio's return objective is to modestly outperform the benchmark. Its risk factors, such as duration, are to closely match the benchmark. Small deviations in sector weights are allowed, and tracking error should be less than 50 bps per year. These features are typical of enhanced indexing.

8. A is correct. Floating-coupon bonds provide inflation protection for the interest income because the reference rate should adjust for inflation. The purchase of fixed-coupon bonds as outlined in Strategy 1 provides no protection against inflation for either interest or principal. Strategy 1 would instead be superior to Strategy 2 in funding future liabilities (better predictability as to the amount of cash flows) and reducing the correlation between the fund's domestic bond portfolio and equity portfolio (better diversification).

9. C is correct. Bond 3 is most likely to be the least liquid of the three bonds presented in Exhibit 2 and will thus most likely require the highest liquidity premium. Low credit ratings, longer time since issuance, smaller issuance size, smaller issuance outstanding, and longer time to maturity typically are associated with a lower liquidity (and thus a higher liquidity premium). Bond 3 has the lowest credit quality and the longest time since issuance of the three bonds. Bond 3 also has a smaller issue size and longer time to maturity than Bond 1. The total issuance outstanding for Bond 3 is smaller than that of Bond 2 and equal to that of Bond 1.

10. B is correct. The total expected return is calculated as:
Total expected return = R olling yield + *E*(Change in price based on investor's yield and yield spread view) - *E*(Credit losses) + *E*(Currency gains or losses)
Rolling yield = Yield income + Rolldown return

Return Component	Formula	Calculation
Yield income	Annual coupon payment/Current bond price	€2.25/€98.45 = 2.29%
+ Rolldown return	$\frac{\left(\text{Bond price}_{\text{End-of-horizon period}} - \text{Bond price}_{\text{Beginning-of-horizon period}}\right)}{\text{Bond price}_{\text{Beginning-of-horizon period}}}$	(€98.62 – €98.45)/ €98.45 = 0.17%
= Rolling yield	Yield income + Rolldown return	2.29% + 0.17% = 2.46%
+ *E*(Change in price based on investor's yield and yield spread view)	$[-\text{MD} \times \Delta\text{Yield}] + [\frac{1}{2} \times \text{Convexity} \times (\text{Yield})^2]$	$[-5.19 \times 0.0015] + [\frac{1}{2} \times 22 \times (0.0015)^2] = -0.78\%$
– *E*(Credit losses)	Given	–0.13%
+ *E*(Currency gains or losses)	Given	0.65%
= Total expected return		**2.20%**

11. C is correct. The sector weights, risk and return characteristics, and turnover for Manager C differ significantly from those of the index, which is typical of an active management mandate. In particular, Manager C' modified duration of 6.16 represents a much larger deviation from the benchmark index modified duration of 5.22 than that of the other managers, which is a characteristic unique to an active management mandate.