

Part II Investment Basics

BONDS AND GOVERNMENT SECURITIES

1. **Answer = (c)**

2. **Answer = (e)**

3. **Answer = (a)**

4. The accounts are audited by the company's auditors. The investment bank will do all the other things. Note that the lawyers referred to in (b) will be lawyers to the issue – the company may well want to retain separate legal advice.

Answer is (d)

5. 6-month Bill at issue is 182-day Bill

$$\text{Price} = 100 - \left(5.20 \times \frac{182}{360} \right) = 97.3711111111$$

$$\begin{aligned} \text{Money Market Yield} &= \left\{ \frac{100}{97.3711111111} - 1 \right\} \times \frac{360}{182} \times 100 \\ &= 5.34\% \end{aligned}$$

Answer = (d)

6. After 60 days Bill will be a 122-day Bill

$$\text{Price} = 100 - \left(5.00 \times \frac{122}{360} \right) = 98.3055555556$$

$$\text{Holding Period Yield} = \left\{ \frac{98.3055555556}{97.3711111111} - 1 \right\} \times \frac{360}{60} \times 100$$

$$= 5.76\%$$

Answer = (b)

7. Calculate the terminal wealth of the CD:

$$\text{Terminal Value} = \$1,000,000 \left\{ 1 + \left(0.06 \times \frac{180}{360} \right) \right\} = \$1,030,000$$

Then calculate the CD's value as an 80 days CD at a yield of 5.50%

$$\text{Value} = \frac{\$1,030,000}{\left(1 + \left\{ 0.0550 \times \frac{80}{360} \right\} \right)} = \$1,022,050.72$$

Finally, Calculate the CD's value as a 50 days CD at a yield of 5.60%

$$\text{Value} = \frac{\$1,030,000}{\left(1 + \left\{ 0.0560 \times \frac{50}{360} \right\} \right)} = \$1,022,050.72$$

Now we can calculate the 30 days return on a 365 days basis:

$$\frac{\{\$1,022,050.72 - \$1,017,563.12\}}{\$1,017,563.12} \times \frac{365}{30} \times 100 = 5.37\%$$

Answer = (b)

8. First we calculate the current price of the Treasury Bill

$$\text{PRICE} = 100 - \left[4.5 \times \frac{180}{360} \right] = 97.75$$

The interest cost over the 40 days will be

$$97.75 \times 0.0475 \times \frac{40}{360} = 0.5159$$

Hence we would need to sell the Bill at a price of 98.2659

The equivalent discount rate would be

$$(100 - 98.2659) \times \frac{360}{140} = 4.46\%$$

Answer = (c)

9. Answer = (b)