Homework Assignment - 1

Chapter - 1

1. A 10-year bond was issued four years ago. The bond is denominated in US dollars,offers a coupon rate of 10% with interest paid semi-annually, and is currently priced at 102% of par. The bond's:

A. tenor is six years.
B. nominal rate is 5%.
C. redemption value is 102% of the par value

2. A company has issued a floating-rate note with a coupon rate equal to the three-month MRR + 65 bps. Interest payments are made quarterly on 31 March, 30 June, 30 September, and 31 December. On 31 March and 30 June, the three-month MRR is 1.55% and 1.35%, respectively. The coupon rate for the interest payment made on 30 June is:

A. 2.00%.
B. 2.10%.
C. 2.20%.

3. The legal contract that describes the form of the bond, the obligations of the issuer, and the rights of the bondholders can be *best* described as a bond's:

A. covenant.
B. indenture.
C. debenture.

4. A South African company issues bonds denominated in pound sterling that are sold to investors in the United Kingdom. These bonds can be *best* described as:

A. Eurobonds.
B. global bonds.
C. foreign bonds.

5. Investors who believe that interest rates will rise *most likely* prefer to invest in:

A. Inverse floaters.
B. fixed-rate bonds.
C. floating-rate notes.

6. A 10-year, capital-indexed bond linked to the Consumer Price Index (CPI) is issued with a coupon rate of 6% and a par value of 1,000. The bond pays interest semi-annually. During the first six months after the bond's issuance, the CPI increases by 2%. On the first coupon payment date, the bond's:

A. coupon rate increases to 8%.
B. coupon payment is equal to 40.
C. principal amount increases to 1,020

7. Which type of call bond option offers the *greatest* flexibility as to when the issuer can exercise the option?

A. Bermuda call
B. European call
C. American call

Chapter- 2

8. The distinction between investment-grade debt and non-investment-grade debt is *best* described by differences in:

A. tax status.
B. credit quality.
C. maturity dates.

9. When classified by type of issuer, asset-backed securities are part of the:

A. corporate sector.
B. structured finance sector.
C. government and government-related sector.

10. Which of the following statements is *most accurate*? An interbank offered rate:

A. is a single reference rate.
B. applies to borrowing periods of up to 10 years.
C. is used as a reference rate for interest rate swaps.

11. A mechanism by which an issuer may be able to offer additional bonds to the general public without preparing a new and separate offering circular *best* describes:

A. the grey market.
B. a shelf registration.
C. a private placement.

12. Sovereign bonds are *best* described as:

A. bonds issued by local governments.
B. secured obligations of a national government.
C. bonds backed by the taxing authority of a national government.

13. Which of the following statements relating to commercial paper is *most accurate*?

A. There is no secondary market for trading commercial paper.
B. Only the strongest, highly rated companies issue commercial paper.
C. Commercial paper is a source of interim financing for long-term projects.

14. When issuing debt, a company may use a sinking fund arrangement as a means of reducing:

A. credit risk.
B. inflation risk.
C. interest rate risk.

15. Agency bonds are issued by:

A. local governments.
B. national governments.
C. quasi-government entities.

Chapter - 3

16. A yield curve constructed from a sequence of yields-to-maturity on zero-coupon bonds is the:

A. par curve.
B. spot curve.
C. forward curve

17. When underwriting new corporate bonds, matrix pricing is used to get an estimate of the:

A. required yield spread over the benchmark rate.
B. market discount rate of other comparable corporate bonds.
C. yield-to-maturity on a government bond having a similar time-to-maturity.

18. A bond with two years remaining until maturity offers a 3% coupon rate with interest paid annually. At a market discount rate of 4%, the price of this bond per 100 of par value is *closest* to:

A. 95.34.
B. 98.00.
C. 98.11.

19. A zero coupon bond matures in 15 years. At a market discount rate of 4.5% per year and assuming annual compounding, the price of the bond per 100 of par value is *closest* to:

A. 51.30.
B. 51.67.
C. 71.62.

The following information relates to Questions 20 and 21

Bond	Price	Coupon rate	Time-to-Maturity
A	101.886	5%	2 years
B	100.000	6%	2 years
C	97.327	5%	3 years

20. Which bond offers the lowest yield-to-maturity?

A. Bond A
B. Bond B
C. Bond C

21. Which bond will *most likely* experience the smallest percent change in price if the market discount rates for all three bonds increase by 100 bps?

A. Bond A
B. Bond B
C. Bond C

22. Suppose a bond's price is expected to increase by 5% if its market discount rate decreases by 100 bps. If the bond's market discount rate increases by 100 bps, the bond price is *most likely* to change by:

A. 5%.
B. less than 5%.
C. more than 5%.

23. Matrix pricing allows investors to estimate market discount rates and prices for bonds:

A. with different coupon rates.
B. that are not actively traded.
C. with different credit quality.

24. A bond with 20 years remaining until maturity is currently trading for 111 per 100 of par value. The bond offers a 5% coupon rate with interest paid semiannually. The bond's annual yield-to-maturity is *closest* to:

A. 2.09%.
B. 4.18%.
C. 4.50%

25. The spread component of a specific bond's yield-to-maturity is *least likely* impacted by changes in:

A. Its tax status.
B. Its quality rating.
C. Inflation in its currency of denomination.

The following information relates to Questions 26-28

Bond G, described in the exhibit below, is sold for settlement on 16 June 2020.

Annual Coupon	5%
Coupon payment frequency	Semiannual
Interest payment dates	10 April and 10 October
Maturity date	10 October 2022
Day-count convention	30/360
Annual Yield-to-Maturity	4%

26. The full price that Bond G settles at on 16 June 2020 is *closest* to:

A. 102.36.
B. 103.10.
C. 103.65.

27. The accrued interest per 100 of par value for Bond G on the settlement date of 16 June 2020 is *closest* to:

A. 0.46.
B. 0.73.
C. 0.92.

28. The flat price for Bond G on the settlement date of 16 June 2020 is *closest* to:

A. 102.18.
B. 103.10.
C. 104.02.

Chapter - 5

29. A “buy-and-hold” investor purchases a fixed-rate bond at a discount and holds the security until it matures. Which of the following sources of return is *least likely* to contribute to the investor’s total return over the investment horizon, assuming all payments are made as scheduled?

A. Capital gain
B. Principal payment
C. Reinvestment of coupon payments

30. An investor buys a three-year bond with a 5% coupon rate paid annually. The bond, with a yield-to-maturity of 3%, is purchased at a price of 105.657223 per 100 of par value. Assuming a 5-basis point change in yield-to-maturity, the bond’s approximate modified duration is *closest* to:

A. 2.78.
B. 2.86.
C. 5.56.

31. The interest rate risk of a fixed-rate bond with an embedded call option is *best* measured by:

A. effective duration.
B. modified duration.
C. Macaulay duration.

The following information relates to Questions 1-3

Bond	Coupon Rate	Time-to-Maturity	Time-to-Maturity	Spot Rates
X	8%	3 years	1 year	8%
Y	7%	3 years	2 years	9%
Z	6%	3 years	3 years	10%

All three bonds pay interest annually.

32. Based on the given sequence of spot rates, the price of Bond X is *closest* to:

A. 95.02.
B. 95.28.
C. 97.63.

33. Based on the given sequence of spot rates, the price of Bond Y is *closest* to:

A. 87.50.
B. 92.54.
C. 92.76.

34. Based on the given sequence of spot rates, the yield-to-maturity of Bond Z is *closest* to:
A. 9.00%.
B. 9.92%.
C. 11.93%.

35. A three-year bond offers a 10% coupon rate with interest paid annually. Assuming the following sequence of spot rates, the price of the bond is *closest* to:

Time-to-Maturity	Spot Rates
1 year	8%
2 years	9%
3 years	9.5%

A. 96.98.
B. 101.46.
C. 102.95.