LO.a: Describe credit risk and credit-related risks affecting corporate bonds.

1. A rating agency has downgraded the rating of Standz Inc. As a result, the price of its bonds went down. This risk is *best* described as:
   A. credit mitigation risk.
   B. credit spread risk.
   C. credit migration risk.

2. An investor has bonds of Meck Inc. worth $500,000. He wants to sell these bonds in the market. However, he has difficulties selling the bonds and may have to sell them at lower than the market value. This can be *best* described as:
   A. bid-ask spread risk.
   B. market liquidity risk.
   C. price risk.

3. Company A is identical to company B, except that B has less publically traded debt outstanding than A. Hence, B is *most likely* to have:
   A. no market liquidity risk.
   B. lower market liquidity risk.
   C. higher market liquidity risk.

4. An analyst is studying a portfolio's credit risk. Which of the following is the analyst *least likely* to consider as a credit-related risk?
   A. Currency risk.
   B. Market liquidity risk.
   C. Spread risk.

5. Analyst I: Bond price changes due to general interest rate movements are not considered credit risk
   Analyst II: Bond price changes due to general interest rate movements are considered credit risk.
   Which analyst's statement is *most likely* correct?
   A. Analyst I.
   B. Analyst II.
   C. Neither of them.

6. Which of the following industries is *most likely* to have the greatest risk?
   A. The airline industry reliant upon a few aircraft manufacturers.
   B. The beverages industry having a huge customer base.
   C. The pharmaceutical industry having high entry barriers.

7. The following table gives the nature and level of debt for three industries.

Industry	**Nature**	**Level of debt**
Tobacco	Non-cyclical	Moderate
Sugar	Non-cyclical	Low
Steel	Cyclical	High

Which of the following industries is *most likely* to exhibit the highest credit risk?

A. Tobacco.
B. Sugar.
C. Steel.

LO.b: Describe default probability and loss severity as components of credit risk.

8. Expected loss is *best* calculated as:
   A. the product of loss severity and default probability.
   B. the sum of loss severity and default probability.
   C. the product of recovery rate and default probability.

9. Which of the following is *least likely* to be a component of credit risk?
   A. Default probability.
   B. Loss severity.
   C. Price trajectory.

10. Which of the following statements is *most accurate?* The best measure of credit risk is:
    A. expected loss.
    B. severity of loss.
    C. probability of default.

LO.c: Describe seniority rankings of corporate debt and explain the potential violation of the priority of claims in a bankruptcy proceeding.

11. Which of the following would *most likely* have the lowest priority of claims in a bankruptcy proceeding?
    A. Senior unsecured debt.
    B. Senior subordinated debt.
    C. Senior secured debt.

12. An organization issued the following categories of option free bonds. The bond with the highest yield *most likely* is:
    A. first lien loan.
    B. subordinated debt.
    C. junior subordinated debt.

13. Which of the following is *most likely* to be a category of secured debt?
    A. Debentures.
    B. Second lien debt.
    C. Subordinated debt.

14. Which of the following is *least likely* to be a reason for issuance of subordinated debt?
    A. It is less expensive than issuing equity and does not dilute existing shareholders.
    B. Investors are willing to buy it because the yield being offered is adequate compensation for the risk perceived.

C. It is ranked higher in the priority of claims and thus investors feel secure.

15. Analyst 1: In practice during bankruptcy the claims on assets are going to be paid off as per the seniority ranking. Hence, secured bond holders should be 100% assured that their claims will be paid off before any other bond holders.
Analyst 2: In practice during bankruptcy the claims on assets are likely to be paid off as per the seniority ranking. However, in some cases the claims might be paid off in a way which is not in line with seniority ranking. Hence, secured bond holders also face some risk.
Which analyst's statement is *most likely* correct?
A. Analyst I.
B. Analyst II.
C. Neither of them.

16. A subordinated bondholder recovered some value in a bankruptcy without a senior creditor getting paid in full. The *most likely* explanation is:
A. absolute priority rules was enforced.
B. the various classes of claimants agreed to it.
C. the company was liquidated rather than reorganized.

17. A company has two types of senior secured bonds outstanding- A and B. Bond A has a remaining maturity of 10 years and bond B has a remaining maturity of 1 year. In case of a default:
A. bond A will be paid first.
B. bond B will be paid first.
C. both bonds will receive the same treatment.

LO.d: Distinguish between corporate issuer credit ratings and issue credit ratings and describe the rating agency practice of "notching."

18. The corporate family rating *most likely* applies to:
A. senior secured.
B. senior unsecured.
C. senior subordinated.

19. An investor wants to buy bonds with investment grade rating. Which of the following bonds will he *most likely* consider?
A. BB+.
B. BBB-.
C. Ba1.

20. A company has various types of bonds outstanding. However, when it missed an interest payment on one bond a default was triggered on all bonds. This provision is *most likely* called:
A. indenture default provision.
B. bond default provision.
C. cross default provision.

21. Using the Moody's ratings scale, investment grade bonds carry which of the following ratings?
    A. Aaa to Baa3.
    B. A1 to B3.
    C. AAA to BBB–.

22. According to the S&P and Moody's ratings, an investment grade bond is *least likely* to be rated:
    A. BBB-/Baa3.
    B. BBB+/Baa1.
    C. CCC+/B3.

23. According to the S&P and Moody's ratings, a speculative grade bond is *most likely* to be rated:
    A. BB+/Ba1.
    B. BBB+/Baa1.
    C. A+/A1.

24. Which of the following statements is *most accurate*?
    A. The issuer rating applies to all of an issuer's bonds, whereas the issue rating considers a bond's seniority ranking.
    B. The issuer rating is an assessment of an issuer's overall creditworthiness, whereas the issue rating is always higher than the issuer rating.
    C. The issuer rating is an assessment of an issuer's overall creditworthiness whereas the issue rating considers a bond's seniority ranking.

25. Based on the practice of notching by the rating agencies, a subordinated bond from a company with an issuer rating of BBB would likely carry what rating?
    A. BB.
    B. B-.
    C. BBB–.

LO.e: Explain risks in relying on ratings from credit rating agencies.

26. An investor buys AAA rated bond and wants to hold it to maturity. He expects that since the bond is AAA rated the bond will continue to have the lowest probability of default till maturity. Is the investor correct?
    A. Investor is correct.
    B. Investor is incorrect because rating agencies may review and change rating at any time before maturity.
    C. Investor is incorrect because AAA rated bonds have greater chances of default as compared to A+ rated bonds.

27. Which of the following is *least likely* a risk of relying on rating from credit rating agencies?
    A. Credit ratings are dynamic.

B. Default risk is difficult to assess.
C. Event risk is difficult to assess.

28. Which of the following is *least likely* to be a limitation of a credit rating agency's ratings?
    A. Credit ratings are relatively stable over time even though the actual credit risk might have changed.
    B. It is not easy to use credit ratings to compare bonds across different industries.
    C. Credit ratings tend to lag market pricing of credit.

29. An analyst observed that the market price of a bond changed faster than the credit rating of that bond. The limitation of credit agency ratings witnessed here is *most likely*:
    A. credit ratings lag market pricing.
    B. rating agencies are not infallible.
    C. event risk is difficult to capture in ratings.

30. A bond's price did not fall when it was downgraded by Moody's. Which of the following is the *most likely* explanation?
    A. Bond prices never react to rating changes.
    B. The bond doesn't trade often so the price has not adjusted to the rating change yet.
    C. The market was expecting the rating change, and so it was already "priced in" to the bond.

31. Company A and Company B, each have bonds outstanding with similar coupons and maturity dates. Both bonds are rated B1, B+, and B+ by Moody's, S&P, and Fitch, respectively. The bonds, however, trade at very different prices — Company A bond trades at $78, whereas the Company B bond trades at $62. What is the *most likely* explanation of the price difference?
    A. Company B's credit ratings are lagging the market's assessment of the company's credit deterioration.
    B. The bonds have similar risks of default (as reflected in the ratings), but the market believes the Company A bond has a higher expected loss in the event of default.
    C. The bonds have similar risks of default (as reflected in the ratings), but the market believes the Company B bond has a higher expected recovery rate in the event of default.

32. Analyst 1: Bonds with the same credit rating have comparable probability of default and comparable severity of loss given default.
    Analyst 2: Bonds with the same credit rating have comparable probability of default but the severity of loss is not necessarily comparable.
    Which analyst's statement is *most likely* correct?
    A. Analyst 1.
    B. Analyst 2.
    C. Neither of them.

LO.f: Explain the four Cs (Capacity, Collateral, Covenants, and Character) of traditional credit analysis.

33. An analyst is analyzing industry structure, industry fundamentals, and company fundamentals while rating a particular corporate bond. Which component of credit analysis is he currently analyzing?
    A. Capacity.
    B. Covenants.
    C. Collateral.

34. Which of the following assets is *not* included in the value of collateral while analyzing the collateral for a debt issue?
    A. Patent.
    B. Goodwill.
    C. Machinery.

35. The quality and value of the assets supporting the issuer's indebtedness is called:
    A. capacity.
    B. collateral.
    C. character.

36. ABC Corp. manufactures a commodity product in a highly competitive industry in which no company has significant market share and where there are low barriers to entry. Which of the following *best* describes ABC's ability to take on substantial debt?
    A. Its ability is very limited because companies in industries with those characteristics generally cannot support high debt loads.
    B. Its ability is strong because companies in industries with those characteristics generally have high margins and cash flows that can support significant debt.
    C. The information is insufficient to comment on the company's debt-taking ability.

37. Which of the following is *least likely* a bond covenant?
    A. The issuer must pay taxes on time.
    B. The company can buy back as much stock as it likes.
    C. If the company offers security to any creditors, it must offer security to this bond issue.

38. Which of the following is *least likely* to be a covenant?
    A. Prohibition on frequent change of auditors.
    B. Prohibition on payment of large dividends.
    C. Prohibition on issuing more debt.

39. A company will not pay more than 10% of its earnings as profits. This is *least likely* an example of:
    A. negative covenant.
    B. affirmative covenant.
    C. restrictive covenant.

40. Which of the following is *least likely* a component of the "Four Cs of Credit Analysis" framework?
    A. Capacity.

B. Character.
C. Conditions.

41. Which of the following is the *least likely* factor to be considered under the category of "character" in the “Four Cs of Credit Analysis" framework?
    A. Significant off-balance sheet financing.
    B. Delinquent accounts.
    C. Track record of business profit.

LO.g: Calculate and interpret financial ratios used in credit analysis.

42. Consider a company whose assets have high depreciation relative to capital expenditure and its stock trading below the book value. What do these two measures *most likely* indicate about the quality of the company’s assets?
    A. Both indicate low quality of assets.
    B. Both indicate high quality of assets.
    C. One indicates high quality of assets, while the other indicates low quality of assets.

43. Financial ratios are examined to understand company fundamentals. Which of the following ratios is *least likely* to be categorized as a leverage ratio?
    A. Funds from operations (FFO).
    B. Funds from operations (FFO)/Debt.
    C. Debt/capital.

44. Company A has total outstanding bonds worth $500,000 and total bank loans of about $500,000. The earning before tax is $75,000. Interest expenses are $30,000. Depreciation is $15,000 and amortization is $5,000. What is debt/EBITDA for this company?
    If this ratio for another company “B” is 10, which company has lower credit risk assuming everything else is equal?
    A. 6, company A has lower credit risk.
    B. 12, company B has lower credit risk.
    C. 8, company A has lower credit risk.

45. An analyst was trying to calculate debt/capital ratio for a company. He noticed that the financial statements show a high value of goodwill. What is the *most appropriate* step he should take?
    A. He should not make adjustments related to goodwill.
    B. He should estimate the average goodwill used by comparable companies and adjust the ratio by using this amount rather than the book value of goodwill.
    C. He should adjust the ratio by writing down the goodwill’s after tax value.

46. Which of the following is generally deducted from the net income when calculating free cash flow before dividends?
    A. Depreciation.
    B. Amortization.
    C. Increase in working capital.

47. Why should credit analysts be concerned if a company's stock trades below book value?
    A. It means the company is probably going bankrupt.
    B. It means the company will probably incur lots of debt to buy back its undervalued stock.
    C. It is a signal that the company's asset value on its balance sheet may be impaired and have to be written down, suggesting less collateral protection for creditors.

LO.h: Evaluate the credit quality of a corporate bond issuer and a bond of that issuer, given key financial ratios of the issuer and the industry.

48. A company is in the business of watches. The company is making good profits year on year and has good amount of reserves on books. However, the debt in the capital structure is very high compared to the industry standards. The notching for rating of the company as compared to the industry will *most likely* be:
    A. one notch below industry.
    B. one notch above industry.
    C. equal to industry.

49. A company set up a special purpose entity specifically to transfer and service debt. Is it possible that the SPE's rating is higher than the company itself?
    A. No, it is not possible because SPE is always considered subsidiary of the company and not an independent company.
    B. Yes, it is possible.
    C. No, it is not possible because the same debt will be transferred from the company's books to the SPE's books.

LO.i: Describe factors that influence the level and volatility of yield spreads.

50. Which of the following is *not* one of the factors that influence the level and volatility of yield spreads?
    A. Credit cycle.
    B. Broker-dealer capital.
    C. Sovereign ratings.

51. What is the *most likely* effect on credit spreads in a country when the credit cycle improves and financial markets perform strongly?
    A. Credit spread is unaffected.
    B. Credit spread widens.
    C. Credit spread narrows.

52. Consider two scenarios: periods when the supply of bond is high relative to demand and periods when the brokers and dealers are unable to provide sufficient capital for market. What is the *most likely* effect on yield spreads under these conditions? The yield spread:
    A. is unaffected.
    B. widens.
    C. narrows down.

53. As compared to higher quality bonds, lower quality bonds exhibit:
    A. greater spread volatility.
    B. less spread volatility.
    C. same spread volatility.

54. Investors become increasingly worried about the economy. The *most likely* impact on credit spreads is:
    A. there will be no change to credit spreads.
    B. narrower spreads will occur.
    C. wider spreads will occur.

LO.j: Explain special considerations when evaluating the credit of high yield, sovereign, and municipal debt issuers and issues.

55. An analyst is considering an investment in high-yield bonds. What is the *most important* factor that the analyst should pay attention to while investing in such bonds?
    A. Debt structure.
    B. Covenants.
    C. Loss severity.

56. Which of the following is *most likely* true about a company whose bonds are categorized as 'high-yield' bonds?
    A. High debt/equity ratio.
    B. High sales growth rate.
    C. High free cash flow.

57. Which of the following is *most likely* to be correct?
    A. The general obligation bonds issued by local government are unsecured bonds supported by the taxing authority of the issuer.
    B. A local government's balance sheet will adequately reflect pensions and other post-retirement obligations.
    C. The general obligation bonds have a higher degree of risk compared to revenue bonds.

58. A state government has issued municipal bonds with maturity of 20 years offering semi-annual coupon payments with 9% coupon rate. The cash-flow for payment of the bonds is structured in a way which makes it highly dependent on variable tax income that is subject to economic cycle. The *most likely* impact on credit risk is:
    A. credit risk increases.
    B. credit risk decreases.
    C. this won't affect credit risk of a municipal bond as they are fully backed by the government.

Solutions

1. C is correct. The change in yield spread and hence the price of the bond due to changes in credit rating can be described as credit migration risk.

2. B is correct. When the security has to be sold below its market value, the risk is called market liquidity risk.

3. C is correct. Market liquidity risk is increased by less debt outstanding.

4. A is correct. Currency risk is not a credit-related risk.

5. A is correct. Bond price changes due to general interest rate movements are not considered credit risk.

6. A is correct. The airline industry relies upon a few aircraft manufacturers; therefore the bargaining power of suppliers is great making this a risky industry. The beverages industry relying upon a huge customer base has a regular stream of cash flows and the negotiating power does not lie with the customers. Therefore this is less risky. The pharmaceutical industry having high entry barriers is less risky because competition is not fierce and pricing power is significant.

7. C is correct. The steel industry is highly leveraged and is cyclic. Both factors increase credit risk.

8. A is correct. Expected loss = Default probability * Loss severity.

9. C is correct. The two components of credit risk are default probability and loss severity.

10. A is correct. Credit risk is best measured by expected loss which is the product of probability of default and the severity of loss in the event of default. Neither component alone completely reflects the risk.

11. B is correct. Among the listed for priority of claims senior secured debt comes first, followed by senior unsecured debt followed by senior subordinated debt.

12. C is correct. Based on seniority ranking junior subordinated bonds has last right among the listed bonds. Hence, they have the highest credit risk than the other two options. Hence, these would offer highest yield.

13. B is correct. Second lien debt is a category of secured debt. Debentures and subordinated debt are categories of unsecured debt.

14. C is correct. Subordinated debt is a form of unsecured debt and is not ranked higher in the priority of claims.

15. B is correct. Analyst 2 is correct. In case of bankruptcy the claims on assets are likely to be paid off as per the seniority ranking. However, in some cases the claims might be paid off in a way which is not in line with seniority ranking. Hence, secured bond holders also face some risk.

16. B is correct. All impaired classes get to vote on the reorganization plan. Negotiation and compromise are often preferable to incurring huge legal and accounting fees in a protracted bankruptcy process that would otherwise reduce the value of the estate for all claimants. This process may allow junior creditors (e.g., subordinated bondholders) recover some value even though more senior creditors do not get paid in full.

17. C is correct. All claims at the same level of the capital structure are pari passu (on an equal footing).

18. B is correct. Rating which is for the overall credit worthiness of the organization is called corporate family rating or issuer rating and it usually applies to the senior unsecured debt of the company.

19. B is correct. Among the listed ratings bonds with BBB- will be considered investment grade bond. The other two bonds will be considered non-investment grade bonds.

20. C is correct. Under a cross default provision, events of default such as non-payment of interest on one bond triggers default on all outstanding debt.

21. A is correct. For Moody’s all bonds above Baa3 are considered investment grade.

22. C is correct. A bond rated investment grade has a rating BBB/Baa3 or better.

23. A is correct. A bond rate speculative grade is BB+/Ba1 or lower.

24. C is correct. The issuer rating is an assessment of an issuer’s overall credit worthiness whereas the issue rating considers a bond’s seniority ranking.

25. C is correct. The subordinated bond would have its rating notched lower than the company’s BBB rating by one notch.

26. B is correct. Investor is incorrect because rating agencies may review and change rating at any time before maturity. If the rating is downgraded in the future, it reflects greater probability of default.

27. B is correct. Among the mentioned list the “default risk is difficult to assess” is not the risk of relying on ratings from the credit rating agencies.

28. B is correct. Options A and C are true statements and represent limitations of credit ratings. Option B does not represent a limitation. Credit ratings can be used to compare bonds across different industries.

29. A is correct. The mentioned limitation is that credit ratings lag market pricing.

30. C is correct. The market was anticipating the rating downgrade and had already priced it in. Bond prices often do react to rating changes, particularly multi-notch ones. Even if bonds don’t trade, their prices adjust based on dealer quotations given to bond pricing services.

31. A is correct. Company B’s credit ratings are probably lagging behind the market’s assessment of its deteriorating creditworthiness. Answers B and C both state the situation backwards. If the market believed that the Company A bond had a higher expected loss given default, then that bond would be trading at a lower, not a higher, price. Similarly, if the market believed that the Company B bond had a higher expected recovery rate in the event of default, then that bond would be trading at a higher, not a lower, price.

32. B is correct. Credit ratings primarily reflect the probability of default, but not necessarily the severity of loss given default.

33. A is correct. Analyzing industry structure, industry fundamentals, and company fundamentals, come under the capacity category of traditional credit analysis.

34. B is correct. Goodwill is not included in the value of collateral while analyzing collateral for any issue. Goodwill is generally written down when the company performance is poor.

35. B is correct. Collateral refers to the quality and value of the assets supporting the issuer’s indebtedness.

36. A is correct. Companies in industries with those characteristics typically have low margins and limited cash flow and thus cannot support high debt levels.

37. B is correct. Covenants describe what the borrower is (1) obligated to do or (2) limited in doing. It is the absence of covenants that would permit a company to buy back as much stock as it likes. A requirement that the company offer security to this bond issue if it offers security to other creditors (option C) is referred to as a “negative pledge.”

38. A is correct. Frequent change of auditors is a behavior that concerns the character of a corporate borrower and is not a covenant.

39. B is correct. Covenants that limit the activities of the borrower are called negative covenants or restrictive covenants.

40. C is correct. The "Four Cs of Credit Analysis" framework includes capacity, collateral, covenants, and character.

41. C is correct. Track record of business profits comes under capacity.

42. A is correct. Both listed measures indicate a low quality of assets.

43. A is correct. Funds from operations (FFO) is a profitability and cash measure and not a leverage ratio.

44. C is correct. EBITDA = 75,000 + 30,000 + 15,000 + 5,000 = 125,000
    Total debt = 500,000 + 500,000 = 1,000,000
    Debt/EBITDA = $\frac{1,000,000}{125,000}$ = 8.
    This ratio is better when it is lower. Hence, it is better for company A and the credit risk is lower for this company.

45. C is correct. The analyst should adjust the ratio by writing down the goodwill's after tax value. This way he will be able to have a more reliable ratio.

46. C is correct. Generally, an increase in working capital is deducted from net income when calculating free cash flow before dividends. Depreciation and amortization are added to net income when calculating free cash flows.

47. C is correct. It is a signal that the company's asset value on its balance sheet may be impaired and have to be written down, suggesting less collateral protection for creditors.

48. A is correct. Though everything else is comparable or better than industry, a very high debt on books in comparison to the industry will attract rating one notch below the industry standard ratings.

49. B is correct. SPEs are considered a separate entity from the company itself. Hence, it is possible that the SPE has a higher rating than the company itself.

50. C is correct. Sovereign rating does not directly affect the level and volatility of yield spread.

51. C is correct. When the credit cycle improves and financial markets perform strongly, the credit spread generally narrows.

52. B is correct. In the conditions mentioned above the yield spread generally widens.

53. A is correct. Lower quality bonds exhibit greater volatility compared to higher quality bonds.

54. C is correct. Investors will require higher yields as compensation for the greater credit losses that are likely to occur in a weakening economy.

55. C is correct. In case of high-yield bonds, the analyst should pay special attention to loss severity. Debt structure and covenants are factors that are considered equally important while analyzing all bonds or bond issues.

56. A is correct. A high debt/equity ratio implies that the company is risky and might justify a 'high-yield' rating. Options B and C are positive attributes and point towards a good credit rating.

57. A is correct. B is incorrect because the municipality balance sheet typically does not reveal a realistic picture of pensions and other post retirement obligations. C is incorrect because revenue bonds have a greater degree of risk.

58. A is correct. The bonds are dependent on a single source of revenue which is variable; this increases credit risk of municipal bonds.