Debenture and Bonds

Meaning of Debenture:

In addition to raising capital by issuing shares, a company requiring long-term funds may borrow money by issuing debentures. A debenture issued by a company is usually in the form of a certificate, given under the seal of the company. It is a written acknowledgment of a debt taken by the company and is issued under the seal of the company.

A debenture certificate contains the terms of the repayment of the principal sum on a specified date and the terms of payment of interest at a fixed rate.

Characteristics or Features of Debentures:

Written Acknowledgment of Debt:
A debenture is issued by a company in the form of a certificate, which is a written acknowledgment of the debt taken by the company.

Issued Under Company Seal:
A debenture is issued under the seal of the company, making it a formal and legally binding document.

Repayment Contract:
It contains a contract for the repayment of the principal sum at a specified date.

Maturity Date:
As per the Companies Act 2013, no company is allowed to issue debentures having a maturity date of more than 10 years from the date of issue. However, a company engaged in infrastructure projects can issue debentures for more than 10 years but not exceeding 30 years.

Coupon Rate:
Usually, debentures are issued with a specified rate of interest, known as the 'Coupon Rate'. A debenture holder receives interest on their debentures at this specified rate, as mentioned in the certificate. Payment of interest is typically made every six months, whether the company makes a profit or not.

Secured by Company Assets:
A debenture is generally secured by a charge on the assets of the company. This means that if the company is unable to repay the debentures as per the terms of issue, the debenture holders can move the court and realize their money by selling the assets of the company.

Long-Term Nature:
Funds raised by issuing debentures are of a long-term nature, and usually, the debentures are repaid after a long period, such as seven, ten, or twelve years. As such, the loan raised by the issue of debentures is also called 'Loan Capital'.

Types or Kinds of Debentures:

Secured or Mortgage Debentures:
- These debentures are secured either on particular assets of the company (fixed charge) or on all assets of the company in general (floating charge). Fixed charge restricts the company from dealing with mortgaged assets, whereas floating charge allows the company to use the assets.
- If the company cannot repay the debentures on the due date, the debenture holders can realize their money from the mortgaged assets.
- First mortgage debentures have the first claim on the charged assets, and second mortgage debentures have the second claim. In India, debentures are necessarily secured.

Unsecured or Naked Debentures:
These debentures are not given any security. The holders of such debentures are treated as unsecured creditors during the liquidation of the company. Such debentures are not very common nowadays, so unless otherwise stated, a debenture is presumed to be secured.

Registered Debentures:
Names and addresses of the holders of these debentures are recorded in the company's register called the "Register of Debentureholders." These debentures are not freely transferable. The principal amount and interest on such a debenture are paid to the person whose name appears in the company's register.

Bearer Debentures:
Names and addresses of the holders of these debentures are not recorded in the company, and these debentures are transferable by delivery. Payment of principal and interest is made to the bearer of such debentures. Coupons are attached to these debentures, and interest is paid to the person who produces the coupons at the specified bank.

Redeemable Debentures:
These debentures are repaid by the company either in lump sum at the end of a specified period or by installments during the lifetime of the company. Most debentures are generally of this type.

Irredeemable or Perpetual Debentures:
These debentures are not repayable by the company during its lifetime and are repayable only at the time of the company's liquidation.

Solved example

Ques 1: XYZ Ltd. issued 1,000 debentures of Rs. 100 each at 10% annual interest. Calculate the interest payable at the end of the year if all debentures are issued at par.

- Issue Date: January 1, 2023
- Maturity Period: 5 years
- Interest Rate: 10% annually

Calculate the interest payable by XYZ Ltd. at the end of the first year.

Solution: we need to calculate the annual interest payable by XYZ Ltd. on the debentures issued.

Here are the details provided:

Number of Debentures Issued: 1,000
Face Value of Each Debenture: Rs. 100
Interest Rate: 10% annually
Calculation:
Total Amount of Debentures Issued:
Total Amount = Number of Debentures × Face Value per Debenture

Total Amount = 1,000×100

Total Amount = Rs.1,00,000

Annual Interest Payable:
Annual Interest = Total Amount × Interest Rate
Annual Interest = 1,00,000 × 10%
Annual Interest = 1,00,000 × 0.10
Annual Interest = Rs.10,000

Conclusion:
The interest payable by XYZ Ltd. at the end of the first year is Rs. 10,000.

Assignment

Ques 1: ABC Ltd. issued 2,000 secured debentures of Rs. 500 each at a 12% annual interest rate. The company pays interest semi-annually. Calculate the interest payable after six months.

- Issue Date: April 1, 2023
- Interest Rate: 12% annually
- Interest Payment Frequency: Semi-annually

Determine the interest payable by ABC Ltd. after the first six months.

Ques 2: LMN Ltd. issued 5,000 unsecured debentures of Rs. 200 each at an 8% annual interest rate. If the debentures are issued at a discount of 5%, calculate the total amount raised and the annual interest payable.

- Issue Date: July 1, 2023
- Discount Rate: 5%
- Interest Rate: 8% annually

Calculate:

- The total amount raised by LMN Ltd.
- The annual interest payable on the issued debentures.

Ques 3: PQR Ltd. issued 3,000 debentures of Rs. 1,000 each at a 9% annual interest rate, payable quarterly. Calculate the interest payable each quarter.

- Issue Date: October 1, 2023
- Interest Rate: 9% annually
- Interest Payment Frequency: Quarterly

Determine the interest payable by PQR Ltd. each quarter.

Bonds: Explanation and Practical Question

Bonds are debt instruments issued by governments, corporations, or other entities to raise capital. Investors who purchase bonds essentially lend money to the issuer in exchange for regular interest payments (coupons) and the return of the bond's face value (principal) at maturity.

Issuer: Bonds can be issued by governments (government bonds), municipalities (municipal bonds), corporations (corporate bonds), and international organizations.

Features:

- Face Value: The amount paid to the bondholder at maturity.

• Coupon Rate: The fixed interest rate paid annually or semi-annually on the face value.
• Maturity Date: The date when the bond issuer repays the principal amount to the bondholder.
• Coupon Payments: Regular interest payments made to bondholders, typically semi-annually or annually.

Types of Bonds:

• Fixed-Rate Bonds: Offer a fixed interest rate throughout the bond's life.
• Floating-Rate Bonds: Have variable interest rates that adjust periodically based on a reference rate.
• Zero-Coupon Bonds: Sold at a discount to face value without periodic interest payments; the investor receives the face value at maturity.
• Convertible Bonds: Can be converted into shares of the issuer's common stock.
• Callable Bonds: Can be redeemed by the issuer before maturity, usually at a specified call price.

Risk and Return:

- Bonds are generally considered less risky than stocks but offer lower potential returns.
- Credit rating agencies assess the creditworthiness of bond issuers, affecting bond prices and yields.
- Higher-risk bonds (e.g., high-yield or junk bonds) offer higher yields to compensate for the increased risk of default.

Solved Question:

ABC Corporation issues 1,000 bonds with a face value of Rs. 1,000 each, carrying an annual coupon rate of 8%. The bonds mature in 10 years. Calculate the annual interest payment and the total interest expense over the life of the bonds.

Solution:

Annual Interest Payment Calculation:

Face Value of each bond = Rs. 1,000
Coupon Rate = 8% per annum
Number of Bonds = 1,000
Annual Interest Payment per bond = Face Value × Coupon Rate = Rs. 1,000 × 8% = Rs. 80

Total Annual Interest Payment = Annual Interest Payment per bond × Number of Bonds
= Rs. 80 × 1,000
= Rs. 80,000

Therefore, ABC Corporation will pay Rs. 80,000 in interest annually to bondholders.

Total Interest Expense Calculation:

Total Interest Expense = Annual Interest Payment × Number of Years
Total Interest Expense = Rs. 80,000 × 10
= Rs. 8,00,000

Thus, over the 10-year period, ABC Corporation will pay a total of Rs. 8,00,000 in interest to bondholders.

Assignment

Ques 1: XYZ Corporation issues 2,000 bonds with a face value of Rs. 500 each, carrying an annual coupon rate of 6%. The bonds mature in 15 years. Calculate the annual interest payment and the total interest expense over the life of the bonds.

Ques 2: ABC Municipality issues 1,500 municipal bonds with a face value of Rs. 1,000 each, carrying a semi-annual coupon rate of 5%. The bonds mature in 20 years. Calculate the semi-annual interest payment and the total interest expense over the life of the bonds.

Ques 3: DEF Bank issues 10,000 floating-rate bonds with a face value of Rs. 100 each, linked to the prevailing 3-month LIBOR rate plus 1%. The bonds pay interest quarterly. If the current 3-month LIBOR rate is 2%, calculate the quarterly interest payment and the total interest expense over the life of the bonds, assuming a 10-year maturity.

Ques 4: PQR Corporation issues 1,200 zero-coupon bonds at a discount, with a face value of Rs. 1,500 each. The bonds mature in 5 years. Calculate the total amount paid by investors to purchase these bonds and explain how the interest is accounted for over the life of the bonds.