**Question#1:  ESTIMATION OF RELEVANT CASH FLOWS:**Master Pasta, Ltd., has projected a sales volume of Rs. 1,432 lakhs for the second year of a proposed expansion project. Costs estimated to be incurred in this (second) year are Rs. 1,002 lakhs. The depreciation expense will be Rs. 80 lakhs (calculated annually), and the tax rate is 34%. What is the operating cash flow?

**Question#2**: A firm is considering the following two projects:

|  |  |  |  |
| --- | --- | --- | --- |
| **PROJECT-A CASH FLOWS** | | **PROJECT-B CASH FLOWS** | |
| **YEARS** | **CASH FLOWS** | **YEARS** | **CASH FLOWS** |
| 0 | (Rs.4,500.00) | 0 | (Rs.4,000.00) |
| 1 | Rs.600.00 | 1 | Rs.800.00 |
| 2 | Rs.800.00 | 2 | Rs.950.00 |
| 3 | Rs.1,000.00 | 3 | Rs.1,080.00 |
| 4 | Rs.1,200.00 | 4 | Rs.1,220.00 |
| 5 | Rs.1,400.00 | 5 | Rs.1,500.00 |
| 6 | Rs.1,500.00 | 6 | Rs.1,000.00 |
| 7 | Rs.1,600.00 | 7 | Rs.800.00 |

***Required:***

2(a). Calculate the Payback Period in years for both projects.

2(b). Calculate NPVs for both projects.

2(c). Calculate IRRs for both projects.

2(d). On the basis of the calculated Payback Period, NPVs, and IRRs above, decide which project should be selected by the firm.

**Please note:** Assume the discount rate to be at 12% for the above question.

**Question#3:**Answer the following questions:

a) Skylark Limited’s share has a beta of 1.5. The risk-free rate prevailing in the bond market is 6.75% and the market expected rate of return is 15.50%. Using the Capital Asset Pricing Model, you are required to determine the cost of equity.

 b) A company’s preference share is trading at BSE at Rs. 110. The preference share is a redeemable share and the Company will redeem them after 15 years at a premium of 5% - that is, it will be redeemed after 15 years at Rs. 105; and it is a 10% Preference Share – the company will pay a dividend of Rs. 10 every year. You are required to determine the cost of preference shares to the Company.

**Question 4: Answer the following questions:**

**4(a).** A bond with a face value of Rs.10,000 has a maturity of 10 years, and a coupon of 11%. If its yield to maturity (YTM) is 9%, then determine the price of the bond.

**4(b).**A bond is traded at a price of Rs. 1,080.42. It has a face value of Rs. 1,000, a semi-annual coupon of Rs. 30, and a maturity of five years. Determine its yield to maturity.

**Question 5**: Answer the following with your reasonings and state your assumptions clearly (if any)

Shivam Rubber Ltd. is expected to pay a dividend of 20% in the upcoming year on a share with a face value of Rs. 10. Dividends are expected to grow at the rate of 6% per year. The risk-free rate of return is 5% and the expected return on the market portfolio is 13%. The share of the Company has a beta of 1.2. You are required to determine the intrinsic value of the share of the company and give your reasoning for arriving at the value.

**Question 6** - The Group is provided with the last 5-year financial information of NTPC Limited along with their approximately last 5 years share prices.

**Find below the excel file (NTPC \_data).**

**Find below the file (NTPC financial information) to access the 5-year financial information of NTPC**

(*Use Capital Assets Pricing Model (CAPM) to estimate its****cost of Equity****– Cost of Equity = Risk-Free Rate+(Market Rate - Risk-Free Rate) x Beta; For Market Return use BSE SENSEX (data is provided) and take risk-free rate as 6.65% per annum. For calculating the Market Annual Return from Daily returns, use 250 as the number of working days. Also, use the following formula to calculate return from prices*

*Return = [(Price today – Price of the previous day)/ Price of the previous day*]

***Required:***

**a)**Valuation of the Company using Dividend Discount Model (use only constant growth model) *Dividend Data is given in the attached EXCEL file*. While calculating the intrinsic value of NTPC share, use the formula ***g = Return on Equity*´*Retention Rate***to calculate the growth rate. After the calculation of the growth rate then compute valuation using the Dividend Discount Model.

**b)**Relative Valuation of the Company uses Price/Earnings Ratio. (Calculate the Price/Earnings Ratio of the last 5 years, take its average for the projection of next year’s (FY 2021) P/E, and predict the price of the Company if it is expected that its EPS (Earning Per Share) will be Rs. 13.50. (*Note: For Calculating the relative valuation of the company 1. Calculate Price/Earnings Ratio for the last 5 years using annual EPS and March-end price of each FY. 2- Number of shares outstanding to be calculated by dividing share capital with the face value of the shares- share capital/ face value per share)*

**Instructions**

* You have to submit 2 files:   
  1. **Report**- The report has to be in **PDF format**.
  2. **Excel File**: Containing the **worked-out problems for all the above questions**.