**JAIPURIA INSTITUTE OF MANAGEMENT, INDORE**

**PGDM**

**THIRD TRIMESTER (Batch 2021-23)**

**END TERM EXAMINATION, MAY-2022**

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| --- | --- | --- | --- |
| Course Name | **Advanced Corporate Finance** | Course Code | **FIN 301** |
| Max. Time | **2 hours** | Max. Marks | **40** |

**INSTRUCTIONS:**

1. All answers calculated on Excel must be reproduced in the answer sheet
2. In all questions, write interpretation and analysis.
3. Exam will be conducted in the IT Lab. No students should bring their laptops etc.
4. No reading materials are allowed in the exam hall as it is a closed book examination
5. **EXCEL FILES MUST BE SUBMIITED FOR EVALUATION ALONGWITH ANSWER SHEET**
6. A bond is currently trading at Rs 1080 (par value Rs 1000). Its coupon is 7% per annum and has 15 years to maturity. Compute its yield to maturity (YTM). If the price is Rs 990, what will be its YTM? **[5 Marks]**
7. Evaluate the impact of *convexity of a bond* on the prices of bonds with the help of a numerical example and the corresponding diagram.  **[5 Marks]**
8. Refer to data in excel file “Q3”. Compute and interpret the following:
9. Net Present Value
10. Internal Rate of Return
11. Pay Back period

The discount rate to be used is 12.5%. **[6 Marks]**

1. Consider the data of daily stock prices of Tesla Inc (“Q4”) in the excel sheet. Compute the value of call option written on this stock if the time to expiry is 60 days, strike of $1065. Consider the spot price of 7 April 2022. The yield offered by 10-year US Treasury is 2.25% per annum. If the time to expiry becomes 90 days what is the value. Write your interpretation of the results. **[4 Marks]**
2. Companies A and B have been offered the following rates per annum on a $20 million five-year loan:

|  |  |  |
| --- | --- | --- |
|  | Fixed Rate | Floating Rate |
| Company A | 5.3% | LIBOR+20 bp |
| Company B | 6.25% | LIBOR+ 50 bp |

Company A requires a floating-rate loan; company B requires a fixed-rate loan. Design a swap that will net a bank, acting as intermediary, 0.1% per annum and that will appear equally attractive to both companies. **[10 Marks]**

1. Raymond Supply, a national hardware chain, is considering purchasing a smaller chain, Strauss & Glazer Parts (SGP). Raymond's analysts project that the merger will result in the following incremental free cash flows, tax shields, and horizon values:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year | 1 | 2 | 3 | 4 |
| Free cash flow | $1 | $3 | $3 | $7 |
| Unlevered horizon value |  |  |  | 75 |
| Tax shield | 1 | 1 | 2 | 3 |
| Horizon value of tax shield |  |  |  | 32 |

Assume that all cash flows occur at the end of the year. SGP is currently financed with 30% debt at a rate of 10%. The acquisition would be made immediately, and if it is undertaken, SGP would retain its current $15 million of debt and issue enough new debt to continue at the 30% target level. The interest rate would remain the same. SGP's pre-merger beta is 2.0, and its post-merger tax rate would be 34%. The risk-free rate is 8% and the market risk premium is 4%. Evaluate how much should SGP value Raymond? **[10 Marks]**