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| **Trim: Jan- March 25****Maximum Marks: 50 Examination: ETE Exam Date: 04.04.25 Duration: 3 Hrs.** |
| **Programme code: 01****Programme: MBA Finance Minor (Batch 2023-25)** | **Class: SY** | **Trimester: VI** |
| **College:**  **K. J. Somaiya Institute of Management** | **Name of the department/Section/Center: Finance & Law** |
| **Course Code: 217P01M632**  | **Name of the Course: Project Finance & Appraisal** |
| **Instructions:** **Q. 1 & 2 are compulsory. Attempt any 3 questions out of 5. Ensure that total attempt is of 50 marks.** |

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| **Question No.** |  |  **Max.****Marks** |
| **Q.1** | **Case Study:**R Ltd. is considering a project with the following Cash flows: **(in ₹)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Years** | **Cost of Plant** | **Recurring Cost** | **Savings** |
| 0 | 20,000 |  |  |
| 1 |  | 8,000 | 24,000 |
| 2 |  | 10,000 | 28,000 |

The cost of capital is 9%.Evaluate the sensitivity of the project in respect of all factors except time such that:(i) NPV become zero and(ii) adversely varying factors value by 10%The P.V. factor at 9% for years 1 and 2 are 0.917 and 0.842 respectively. | **10**  |
| **Q.2**  | **Case Study:**A firm has an investment proposal, requiring an outlay of ₹ 8 Lakhs. The investment proposal is expected to have two years’ economic life with no salvage value. In year 1, there is 0.4 probability that cash inflow after tax will be ₹ 5 Lakhs and 0.6 probability that cash inflow after tax will be ₹ 6 Lakhs. The probability assigned to Cash inflow after tax for the year 2 are as follows:

|  |  |  |
| --- | --- | --- |
| Cash Inflow for Year I (₹) | **5 Lakhs** | **6 Lakhs** |
| Cash Inflow for Year II (₹) | **₹** | **Probability** | **₹** | **Probability** |
|  | 2.40 lakh | 0.2 | 4 Lakhs | 0.4 |
|  | 3.20 Lakh | 0.3 | 5 Lakhs | 0.5 |
|  | 4.40 Lakh | 0.5 | 6 Lakhs | 0.1 |

The firm uses 8% discount rate for this type of investment.(i) Construct a decision tree for the proposed investment project.(ii) Calculate the expected Net Present Value (NPV).(iii) What Net Present Value will the project yield, if the worst outcome is realized?(iv) What will be the NPV of the best outcome?(8% discount factor: 1st year 0.9259; 2nd year 0.8573). | **10** |
| **Q.3** | i. Explain the salient features of Project Financeii. Elaborate the need and relevance of Project Financeiii. State the points to distinguish between Project Finance and Corporate Financeiv. State the points to highlight the flip side of Project Finance | **10** |
| **Q.4** | Norton Limited manufactures steel rods and is now considering to purchase a new aluminum smelting and moulding plant. This plant will have the cost of Rs. 20,00,000 to purchase and install the plant. It has a useful life of 5 years with a residual value of Rs. 1,00,000. Production and sales from the new plant are expected to be 1,00,000 units per year. Other estimates are as follows:

|  |  |
| --- | --- |
| Selling Price | Rs. 150 per unit |
| Direct Cost | Rs. 100 per unit |

Fixed cost (including depreciation) is Rs. 8,00,000 per annum. Marketing and promotion cost not included in the above will be Rs. 1,00,000 and Rs. 1,60,000 for years 1 and 2, respectively. Additionally, investment in debtors and stocks will increase in year 1 by Rs. 1,50,000 and Rs. 2,00,000, respectively. Creditors will also increase by Rs. 1,00,000 in year 1. Thus, debtors, stocks, and creditors will be recouped at the end of the fifth year.The cost of capital is 18%. Corporate tax is 30% and is paid in the year in which profits are made. Depreciation is tax deductible. The company follows straight line method of depreciation. Assume that working capital is invested at the beginning of the year.Required:(i) Calculate the net cash inflows after tax over the useful life of the project.(ii) Calculate the Net Present Value and Profitability Index of the project.(iii) Advise Norton Limited whether the plant should be purchased.The PV factors at 18% are:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | 1 | 2 | 3 | 4 | 5 |
| **PV Factor** | 0.847 | 0.718 | 0.609 | 0.516 | 0.437 |

 | **10** |
| **Q. 5** | Explain the different types of risks faced by the entity undertaking large infrastructure projects. Also explain Risk Determination And Rating System (RDRS) followed by the financial institutions while appraising the project and sanctioning funds for such projects. | **10** |
| **Q.6 (a)****Q.6 (b)** | A new project “Prithvi” requires an initial outlay of ₹ 4,50,000. The company uses certainty equivalent method approach to evaluate the project. The risk-free rate is 7%. Following information is available:

|  |  |  |
| --- | --- | --- |
| **Year** | **Cash Flow after Tax (₹)** | **Certainty Equivalent Coefficient** |
| 1 | 1,50,000 | 0.90 |
| 2 | 2,25,000 | 0.80 |
| 3 | 1,75,000 | 0.58 |
| 4 | 1,50,000 | 0.56 |
| 5 | 70,000 | 0.50 |

PV Factors at 7%: 0.935 for 1st year, 0.873 for 2nd year, 0.816 for 3rd year, 0.763 for 4th year and 0.713 for 5th year.Is investment in the project beneficial based on above information?Explain the concept of Public Private Partnership (PPP) with respect to Project Finance. | **5****5** |
| **Q.7 (a)****Q.7 (b)** | Neel Ltd. is an un-levered firm and undertakes three projects A, B and C. The risk-free rate of return is 8% and the return from the market is 12%. The projects have a weight of 0.5,0.3 and 0.2 respectively. Their respective betas are 1.3, 1.0 and 0.8.You are required to compute:(i) Expected return from each project;(ii) Expected return for the company; and (iii) Cost of capital.Explain various types of participants in Project Finance | **5****5** |