PRESIDENCY UNIVERSITY, BENGALURU
SCHOOL OF MANAGEMENT

Max Marks: 100   Max Time: 180 Mins   Weightage: 40 %

END TERM FINAL EXAMINATION

I Semester AY 2017-2018   Course: **FIN302 Project Appraisal and Financing**   22 DEC 2017

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Instructions:
  i.   Write legibly
  ii.   Scientific and non-programmable calculators are permitted

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Part-A

[5 Q x 4 M = 20 Marks]

Answer the following questions in two to three sentences only.

1. List the important industry-specific sources of secondary information in India?

2. How is income elasticity of demand measured?

3. How is price elasticity of demand measured?

4. List the techniques of risk analysis?

5. What is the difference between accounting break-even analysis and financial break-even analysis?

Part-B

[4 Q x 10 M = 40 Marks]

6. The sales of a certain product during a 16- year period have been as follows.

Period	Sales	Period	Sales
1	560	9	710
2	580	10	700
3	620	11	730
4	600	12	760
5	630	13	750
6	660	14	780
7	640	15	820
8	680	16	810

Find the least squares regression line for the above data.

7. For the data given in problem 6 assume that the forecast for period 1 was 550. If α is equal to 0.2, derive the forecasts for the periods 2 to 16 using the exponential smoothing method.

8. For the data given in problem 6, set n =4 and develop forecasts for the periods 5 to 16 using the moving average method.

9. The following information is available on quantity demanded and income level:

   Q_1 = Quantity demanded in the base year =200
   Q_2 = Quantity demanded in the following year = 250
   I_1 = Income level in base year = 400
   I_2 = Income level in the following year = 600

   What is the income elasticity of demand?

Part-C

[2 Q x 20 M = 40 Marks]

10. A company has developed the following cash flow forecast for their new project.

Rs. in million

	Year 0	Years 1 - 10
Investment	(400)	
Sales		440
Variable costs (75% of sales)		330
Fixed costs		20
Depreciation (Straight line method)		40
Pre-tax profit		50
Taxes (at 20 %)		10
Profit after taxes		40
Cash flow from operations		80
Net cash flow		80

What is the NPV of the new project? Assume that the cost of capital is 10 percent. The range of values that the underlying variables can take under three scenarios: pessimistic, expected and optimistic are as shown below:

Underlying Variable	Pessimistic	Expected	Optimistic
Investment (Rs. in million)	420	400	360
Sales (Rs. in million)	350	440	500
Variable cost as a percent of sales	80	75	70
Fixed costs (Rs. in million)	25	20	18
Cost of capital (%)	11	10	9

(a) What are the NPVs under the different scenarios?

(b) Calculate the accounting break-even point and the financial break-even point for the new project.

11. Jawahar Industries has identified that the following factors, with their respective expected values, have a bearing on the NPV of their new project.

Initial investment	10,000
Cost of capital	11%
Quantity manufactured and sold annually	1,000
Price per unit	20
Variable cost per unit	15
Fixed costs	1,000
Depreciation	1,000
Tax rate	20%
Life of the project	7 years
Net salvage value	Nil

Assume that the following underlying variables can take the values as shown below:

Underlying variable	Pessimistic	Optimistic
Quantity manufactured and sold	700	1,400
Price per unit	18	23
Variable cost per unit	16	14

Calculate the sensitivity of net present value to variations in (a) quantity manufactured and sold, (b) price per unit, and (c) variable cost per unit.

Max Marks: 60   Max Time: 120 Mins   Weightage: 20 %

2016 BATCH MBA III SEMESTER

MID TERM EXAMINATION

I Semester AY 2017-2018   Course: **Project Appraisal and Financing**   11 OCT 2017
(FIN302)

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Instructions:
   i.   Write legibly
   ii. Scientific and non-programmable calculators are permitted

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Part-A

(5 Q x 2 M = 10 Marks)

Answer the following questions in two to three sentences only.

1. List the six broad phases of capital budgeting?

2. What does IRR mean?

3. What is payback period?

4. What is NPV?

5. Why does money have time value?

Part-B

(6 Q x 5 M = 30 Marks)

6. Calculate the value 10 years hence of a deposit of Rs. 5,000 made today if the interest rate is
   (a) 9 percent and (b) 14 percent.

7. Find the present value of Rs. 50,000 receivables after 5 years if the rate of discount is
   (a) 16 percent and (b) 10 percent.

8. Santosh plans to purchase an apartment costing Rs. 10,000,000 after 5 years. How much should he save annually to have a sum of Rs. 10,000,000 at the end of 5 years, if the interest rate is 9 percent?

9. What is the present value of a 15-year ordinary annuity of Rs. 5,000 at 8 percent?

10. If you deposit Rs 800,000 in a bank which pays 8 percent interest how much can you withdraw at the end of each year for a period of 10 years. Assume that at the end of 10 years the amount deposited will whittle down to zero.

11. How much would a deposit of Rs. 10,000 at the end of 10 years be, if the interest rate is 8 percent and if the compounding is done once in six months?

Part-C

Attempt either question number (12) or (13)

12. Megatronics Limited is evaluating a project whose expected cash flows   **(20 Marks)**
    are as follows:

Year	Cash flow
0	-500,000
1	100,000
2	200,000
3	300,000
4	100,000

(i) What is the NPV of the project if the cost of capital is 10 percent?

(ii) What is the IRR of the project?

(iii) What is the Modified NPV of the project if the reinvestment rate is 13%?

(iv) What is the Modified IRR (MIRR) of the project if the reinvestment rate is 13%?

OR

13. (a) Maharaja Associates is considering a project which requires an initial   **(10 Marks)**
      outlay of Rs.100 million. The cost of capital is 15 percent and the
      expected cash inflows from these projects are:

Year	1	2	3	4	5
Cash flow in Rs. Million	20	30	30	50	70

(i) What is the payback period?

(ii) What is the discounted payback period?

(iii) What is the Benefit Cost Ratio?

13. (b) The following financial information is available about a project: **(10 Marks)**
      Compute the various measures of accounting rate of return.

(Rs. in million)

Year	1	2	3	4	5	6	7	8
Investment	3.60	3.15	2.70	2.25	1.80	1.35	0.90	0.45
Depreciation	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
Income before interest and taxes	0.90	0.95	0.80	0.85	0.90	0.70	0.85	0.80
Interest	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Income before tax	0.60	0.65	0.50	0.55	0.60	0.40	0.55	0.50
Tax	0.12	0.13	0.10	0.11	0.12	0.08	0.11	0.10
Income after tax	0.48	0.52	0.40	0.44	0.48	0.32	0.44	0.40