



BRAINWARE UNIVERSITY

Coursework Examination 2018 – 19 (June 2019)

Programme – Doctor of Philosophy in Management

Course Name – Corporate Finance

Course Code – PHD-MCF03

Time allotted: 4 Hours

Full Marks: 100

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group –A

1. *Answer the following*

10 x 1 = 10

Justify following statements or comments.

- (i) Pay Back is not a rational technique.
- (ii) An investor has purchased a share at Rs.100. After 4 years it is sold at Rs.160. He concluded that annual return is 15%.
- (iii) Free cash flow excludes increase in capital investment from closing cash balance.
- (iv) DOL is the ratio of Total contribution to PBIT.
- (v) Market weight used in WACC calculation is historical reflection.
- (vi) IRR indicates maximum return of a project.
- (vii) Lease period in operating lease is less than technical life of the project.
- (viii) NPV is zero at IRR.
- (ix) If cost of capital is greater than IRR, then firm is growing.
- (x) Ohlins and ORRs model is used in Debtors control.

Group – B

(Short Answer Type Questions)

6 x 5 = 30

Answer any *six* from the following

- 2. Agency conflicts are the direct outcome of the multiplicity of stakeholders in a firm and their resolutions lies in convergence of varied stakeholders. Analyse. 5
- 3. Standard deviation is not an appropriate measure of risk - Comment. 5

4. Security A has expected return of 20% with standard deviation of 25%. Security B has expected return of 18% and standard deviation of 30%. A portfolio Manager has commented that no one should invest in share B. Analyse it and comment. 5
5. Three Deep discounted bonds of different maturity period are available. Relevant data are- 5

	Price	Per value
Maturing after one year	476	500
Maturing after two years	895	1000
Maturing after three years	4139	5000

Comment on the tem structure of interest rate

6. Company has issued 10 years bond with coupon 12% paid semi-annually. Already 5 years has elapsed. Now the market rate is 14%. Estimate price of bond at present and comment. 5
- 7 A company is considering an investment proposal requiring initial outlay of Rs.20crores. It provides uniform cash flow of Rs.50 lakh over next 8 years. The cut off payback period is three years. On a discounting basis, the management is inclined to consider favourably a project on the payback of six years. With the cost of capital at 15%, the project has a positive NPV of Rs.243 lakhs and IRR of 18.62%. Explain the ways of convincing the management to accept the proposal. 5
- 8 Profitability index is considered better than NPV. Comment and indicate limitations of profitability method if any. 5
- 9 A communication company has to replace old server with a latest version costing Rs.40 lakhs. Its transportation and installation cost is Rs.5 lakhs. Since the firm is located in free trade zone, it qualifies for tax benefit of 20% of capital investment made in any year. Besides, the firm is also eligible to capital subsidy of 10%. The firm has to dispose its old server at an expected price of Rs.5 lakh only against its book value of Rs.15 lakh. The firm is profitable and pays income tax at 20%. Find out the initial outlay of the project. 5

Group – C

(Long Answer Type Questions)

6 x 10 = 60

10. An investor has four alternative investment opportunities. Select the best one. 10
- Rs.750,000 available today.
 - Rs.18,00,000 to be received after 8 years.
 - Rs.1,00,000 per annum on perpetuity
 - Rs.30,000 per month for a year and Rs.5,00,000 at the end of the year.
- Opportunity cost of capital is 11.5%.
11. IRR and NPV very often give contradictory results. Explain. 10

12. Compute EVA from the following data

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	(Rs.in crores)
Total assets	500
Debt-equity ratio	0.25
Beta	1.19
Sales	1050
Cost of goods sold	288.75
Gross profit	761.25
Administrative, selling & distribution overhead	325.00
Profit before interest and tax	436.25
Interest @ 12% p.a.	12.00
PBT	424.25
Tax @ 38.5%	163.34
PAT	260.91

The firm finances the asset base with 20% debt. The risk-free rate for the second period can be taken as 5.75% while the risk premium has been estimated as 10.35%. The beta value of the firm is 1.19.

13. A firm has entered the maturity phase of its life cycle. Its cash flow before interest and tax is expected to remain at constant level of Rs.550.25 lakhs. Presently it is an all equity firm. Cost of equity is 15.75%. Estimate value of the firm. Applicable tax rate is 38.5%. Now the firm has decided to alter its capital structure. Debt ratio is 25%. Similar risky firms cost of debt is 10.25%. Explain the impact of this change on firm's cost of equity, WACC and value of firm. 5
5
14. A firm is considering two mutually exclusive projects A and B with IRR 20% and 25% respectively. Uncertain about the cost of capital of the firm the finance manager computed NPVs of the project A and B with discounting rates of 14% and 18%. At 14% discount rate NPV of the projects A and B were Rs.400 and Rs.500 respectively. The NPV of project A and B with 18% discount rate were Rs.500 and Rs.400 respectively. Explain the ways of resolving this dilemma. 10
15. Consider the data given below-

Year	Dividend (D)	Closing Price
2011-12	4.25	110
2012-13	5.50	115
2013-14	6.00	120
2014-15	6.75	135
2015-16	7.75	128
2016-17	9.00	126
2017-18	8.00	138
2018-19	6.50	136

- (a) Calculate Expected return from the share in each year. 5
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- (b) Estimate standard deviation and comment.

16. XY ltd. Has under its consideration a project with an initial investment of Rs.100000. Three probable cash inflow scenarios with their probabilities of occurrences have been estimated as below:

Annual cash inflow	20,000	30,000	40,000
probability	0.1	0.7	0.2

The project life is 5 years and the desired rate of return is 20%. The estimated terminal value for the project assets under the three probability alternatives respectively are Rs.0, Rs 20,000 and Rs.30,000.

You are required to:

- (a) Find the probable NPV. 4
 - (b) Find the worst case NPV and the best case NPV. 4
 - (c) State the probability of occurrence of worst case, if the cash flows are perfectly positively correlated over time. 2
17. In leasing explain the method of calculating minimum and maximum lease rent. 10
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