NEW SYLLABUS

447

Roll No. ....

OPEN BOOK EXAMINATION

Time allowed : 3 hours

Maximum marks : 100

Total number of questions : 6

Total number of printed pages : 6

NOTE : 1. *Answer **ALL** Questions.*
2. *Suitable assumptions, if considered necessary, may be made while answering a question. However, such assumptions must be stated clearly.*
3. *Working notes should form part of the answer.*

PART–A

1. LHC is a major hotel chain. The company operates 35 hotels of which 14 are owned by it and the rest are owned by others but managed by LHC.

LHC's operating revenues and expenses for the just concluded year (year 0) were as follows :

Particulars	**₹ in Million**
Operating Revenues	
Room rent	1043
Food and beverages	678
Management fee for managed properties	73
Operating Expenses	
Materials	258
Personnel	258
Upkeep and services	350
Sales and general administration	350
Assets	
Net fixed assets (Gross Block 2110, Dep 600)	1510
Net current assets	516
Liabilities	
Net worth	1126
Debt	900

LHC has no non-operating assets.

At the beginning of year 0, LHC owned 2190 rooms. It has planned the following additions for next 7 years. Most of the land needed by the company for these additions has been already acquired.

Year	**Rooms (in numbers)**	**Investment in ₹ Millions**
1	90	200
2	130	300
3	80	240
4	130	500
5	186	800
6	355	1400
7	150	1300

A good portion of investment in year 7 would be towards purchase of land. It is assumed that the addition will take place at the beginning of the year. For developing the financial projections of LHC, the following assumptions may be made :

(*i*) the occupancy rate will be 60% for year one and thereafter it will increase by 1% per year for next 6 years.

(*ii*) the average room rent per day will be ₹ 2500 for year one and it is expected to increase at the rate of 15% per year till year 7.

(*iii*) food and beverage revenue is expected to be 65% of the room rent.

(*iv*) material expenses, personal expenses, upkeep & service expenses, and sales & general administration expenses will be respectively 15, 15, 18 and 18 percent of the revenues excluding the management fee.

(*v*) working capital investment is expected to be 30% of the revenue from owned properties.

(*vi*) the management fee for the managed properties will be 7% of room rent. Room rent from managed properties will be equal to the room rent from owned properties.

(*vii*) depreciation is expected to be 7% of net fixed assets.

(*viii*) effective tax rate 20%.

The market value of equity at the end of year zero is ₹ 3050 million. The imputed market value of debt is ₹ 900 million.
Stock has a beta 0.921.
Risk free rate of return is 12% and the market risk premium is 8%.
Post tax cost of debt is 9%.
FCF is expected to grow at a rate of 10% per annum after 7 years.

(*a*) Build projections for next 7 years.

(*10 marks*)

(*b*) Calculate cost of equity and weighted average cost of capital (WACC).

(*7 marks*)

(*c*) What is the terminal value at the end of explicit forecast period ?

(*5 marks*)

(*d*) Calculate enterprise value by using DCF method.

(*12 marks*)

(*e*) Calculate equity value.

(*6 marks*)

2. (*a*) The equity stock of Lex Ltd. is currently selling for INR 30 per share. The dividend expected next year is INR 2 per share. The required rate of return by investors on this stock is 15%. If the constant growth model is applied to Lex Ltd., what is the expected growth rate ?

(*5 marks*)

(*b*) The balance sheet of W Ltd. at the end of year zero is as follows :

₹ in crore

Liabilities		**Assets**	
Shareholders funds		Net fixed assets	550
Equity capital (20,00,00,000 shares of ₹ 10 each)	200	Networking capital	200
Reserves and surplus	300		
Loan funds (rate 10%)	250		
Total	750	Total	750

The return on assets (Net Operating Profit After Taxes (NOPAT)) is expected to be 18% on the asset value at the beginning of each year. The growth rate in assets and revenues will be 30% for the first 3 years, 18% for the next 2 years and 10% thereafter. The effective tax rate of the firm is 34%. The pre tax cost of debt is 10%. The cost of equity is 24%. The debt equity ratio of the firm will be maintained at 1 : 2.

(*i*) Calculate FCF.

(*ii*) Calculate weighted average cost of capital.

(*5 marks*)

3. (*a*) State whether the under given statements are true or false assuming that all variables are constant except for the variable discussed below :

(*i*) As the discount rate increases, the value of an asset increases.

(*ii*) As the perpetuity growth rate increases, the value of an asset increases.

(*iii*) As the life of an asset is lengthened, the value of that asset increases.

(*iv*) As the uncertainty about the expected cash flow increases, the value of an asset increases.

(*v*) Asset with an infinite life will have an infinite value.

(*b*) Write down the three approaches to valuation. Is it mandatory for the valuer to consider all three approaches ? Which approach a valuer should choose ?

(*5 marks each*)

4. (*a*) The risk free return is 6% and the expected return on market portfolio is 15%. If the required return on stock is 18%, what is beta ?

(*b*) Arihant EdTech has started a web portal for online education and is at an early stage of business. It desires to value its business. List down the methods it can adopt for valuation along with a short write up on each.

(*5 marks each*)

PART–B

5. (*a*) As a business modelling consultant you are required to suggest suitable business model to your client. In this scenario what are the key components you're going to explain to them before finalising the business model ?

(*b*) List down the business models for a start-up business. Write a short note on "On demand model".

(*c*) Explain the business model followed by Netflix.

(*5 marks each*)

6. (*a*) Prepare cash flow statement from the table and information given below :

₹

Liabilities	**31st March, 2000**	**31st March, 2001**	**Assets**	**31st March, 2000**	**31st March, 2001**
Share Capital	4,50,000	4,50,000	Fixed assets	4,00,000	3,20,000
General Reserve	3,00,000	3,10,000	Investments	50,000	60,000
Profit & Loss	56,000	68,000	Stock	2,40,000	2,10,000
Creditors	1,68,000	1,34,000	Debtors	2,10,000	4,55,000
Provision for Tax	75,000	10,000	Bank Balances	1,49,000	1,97,000
Mortgage	—	2,70,000			
	10,49,000	12,42,000		10,49,000	12,42,000

Additional Information :

(*i*) Investments costing ₹ 8,000 were sold during the year 2000-2001 for ₹ 8,500.

(*ii*) Provision for tax made during the year was ₹ 9,000.

(*iii*) During the year, part of the fixed assets costing ₹ 10,000 was sold for ₹ 12,000, profit was included in the profit and loss account.

(*iv*) Dividends paid during the year amounted to ₹ 40,000.

(*7 marks*)

(*b*) Explain the concepts of percentage of sales method and regression analysis method in estimating working capital with the help of suitable examples.

(*4 marks*)

(*c*) A banker is reviewing your proposal for grant of long term loan and working capital facilities. What are the key ratios he is likely to review to assess serviceability of the credit facilities ? Also provide formulas for at least three key ratios.

(*4 marks*)

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