JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION, 2017

M.TECH II SEMESTER

COURSE CODE: 10M11CE214 MAX. MARKS: 35

COURSE NAME: CONSTRUCTION FINANCIAL MANAGEMENT

COURSE CREDITS: 03 MAX. TIME: 2 HRS

Note: *All questions are compulsory. Draw figure, sketches and give suitable example to illustrate your answers. Assume missing data suitably if required. Interest table signed by the course coordinator, is allowed in the examination.*

1. Two alternatives, machine A and B are being considered to increase output. Acquisition cost of the former is Rs 30,000 and for the later is RS 50,000. Operating costs are paid at the end of each month in proportion to the number of units produced. Fixed costs are paid at the end of each half year. Assume that fixed costs are not required for zero units of production, the useful life of either machine is 4 years, and the cost of capital is 10% compounded monthly. Specific costs for each machine are shown below. [6]

	Machine A	Machine B
Operating cost (per unit)	Rs 0.70	Rs 0.50
Fixed cost (every 6 months)	Rs 800	Rs 1300

Find the breakeven production level at which machine A and B are equally attractive.

2. Calculate the depreciation using declining balance method for an Asset purchased at Rs 10 Lakh having a salvage value of RS 1 Lakh and tax life of 20 years. [6]
In which year you will switch to straight line method of depreciation?

3. From the following transactions details of a construction company M/s New Construction Limited, prepare the profit and loss account and Balance Sheet. [5]

Transaction	Reference	Description
1	T1	Purchased materials for Rs 6566
2	T2	Paid salaries Rs 668
3	T3	Paid for telephone charges Rs 1691

4	T4	Interest on loan paid Rs 177
5	T5	Tax paid Rs 77
6	T6	Sold goods for Rs 9614
7	T7	Borrowed loan from Citibank Rs 3176
8	T8	Purchased machinery for Rs 3176

4. Write short notes on the following [8]

    i.   Sinking fund factor

    ii.   Current asset

    iii. Isoquants

    iv. Breakeven point

5. Consider the following two alternatives [10]

	Alternative 1	Alternative 2
Purchase cost of Asset at t = 0	Rs 1000,000	Rs 800,000
Annual expense	Rs 250,000	Rs 150,000
Annual income	Rs 575,000	Rs 575,000
Salvage value	Rs 200,000	0
Economic life	8 years	4 years

a) Suppose that the salvage value of alternative 2 is known with certainty. By how much would the estimate of salvage value for alternative 1 have to vary so that the initial decision based on the data above would be reversed? The minimum attractive rate of return is 15 percent.

b) Also develop a family of curves showing variation in present worth as a function of annual expenses for different values of economic life for alternative 1.