b) Explain manufacturing cost non-manufacturing cost and opportunity cost in Engineering economics. 7

4. a) Select the best project by using IRR method when MARR is 8%. Use incremental analysis if necessary. 7

	Project A	Project B
Initial investment	1,00,000	5,00,000
Annual revenue	50,000	1,75,000
Life Year	6	6
Salvage value	10,000	1,00,000

b) Flower shopkeeper want to a bunch of rose on Rs 100, the shop need to pay Rs 10,000 for rent and Rs 15000 for the helper, 98 he could sold the bunch of rose on Rs 125, How much quality the bunch of flowers need to sold to meet break-even point? 8

5. a) Define ecological limit and sustainable development. 7

b) An organization wants to purchase of Rs.10,00,000 machine that is assigned to 5 years useful life and expected salvage Rs. 2,00,000. Compute depreciation by SOYD and MACRS methods for each year. 8

6. a) What do you mean by financing and method of financing and explain debt ratio, current ratio, cost of equity and cost of debt. 7

b) Fill up the following data on standard balance sheet cash, $2000 inventory $5000, Account receival $3000, Land and Building $13000, Equipment $7000, Deprecation $1000 Bank overdraft $500, Account payable $1000 & Returned earning $6500.00? 8

7. Write short notes on: **(Any two)** 2×5

a) Asset & liabilities

b) Economic Internal rate of return (EIRR) and Financial Internal rate of return

c) Depreciation by sinking fund method

POKHARA UNIVERSITY

Level: Bachelor Semester: Chance Fall Year : 2019 2020
Programme:BE Full Marks: 100
Course: Engineering Economics Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) How you justify the statement "Demand creates supply"? Describe seven principles of Engineering economics. 7

   b) If you deposit Rs. 5,000 per month for two years, what will be the amount at the end of five years if bank interest rate is 5% in every six month? 8

2. a) Calculate Discount payback of following given cash flow of the Engineering project, when MAAR is 20% 8

End of year(EoY)	0	1	2	3	4	5
Net cashflow(Rs)	-25000	+8000	+8000	+8000	+8000	+13000

   b) Select the best project by using IRR method when MARR is 8%. 7

	Project A	Project B
Initial investment	3,00,000	5,00,000
Annual revenue	90,000	1,75,000
Life Year	6	6
Salvage value	10,000	1,00,000

3. a) Evaluate the following two projects A and B having different useful lives, if MARR is 15% per year. Use PW method with repeatability assumptions. 8

	Project A (Rs.)	Project B (Rs.)
Initial Investment	540000	650000
Annual revenue	250000	280000
Annual cost	50000	60000
Salvage value	100000	120000
Useful life	4 years	6 years