Q1. Two investment proposals involving same COF of US$210,000 in each case as on 01-01-2013; End of Year CIFAT Cash Inflows after Tax in US$

	2013	2014	2015	2016	2017	2018
Choice 1	$50,000	$40,000	$40,000	$50,000	$30,000	$35,000
Choice 2	US$65,000 each year for next 5 Year.					

      a. Find Pay Back Period for both choices.
      b. Which Choice is better and in what circumstances?

Q2.   C & Co has following investment proposals,

	01-01-2013 COF	At End of 2014 CIFAT	At End of 2015 CIFAT	At End of 2016 CIFAT	At End of 2017 CIFAT
Choice X	$(20,500)	10,500	6,500	8,000	Nil
Choice Y	$(50,500)	35,500	5,500	7,500	5,000

      a.   Find Net Present Value for above choices at Discount Rate 10%. **b.**   Find Profitability Index for above choices at Discount Rate 12%. **c.**   Which choice do you prefer and why?

Q3:
D a project manager is evaluating <u>two mutually exclusive</u> project proposals (X and Y) with the following <u>End of Year Annual Cash Flow</u>;

Year.	Net CFs Project X.	Net CFs Project
2013	−$100,000	−$150,000
2014	$40,300	$75,200
2015	$50,400	$59,300
2016	$35,500	$65,400

Required: Indicate <u>which project is acceptable</u> based on following capital budgeting techniques;

    a.   Payback period of projects
    b. NPV of projects Using 10% RRR.
    c. PI (Benefit Cost Analysis) of projects Using 10% RRR.
    d. IRR (Internal rate of return) of Projects.

Q4:
W Engineering is considering including two pieces of equipment, a truck and an overhead pulley system, in this year's capital budget. The projects are **independent**. The cash outlay for the **truck** is $17,100, and that for the **Pulley system** is $22,430 **today**. *After-tax cash flows at end of each year are as follows;*

YEAR	TRUCK	PULLEY
1	$5,100	$7,000
2	5,100	7,100
3	5,100	7,200
4	5,100	7,300
5	5,100	7,400

Required: Indicate the correct accept/reject decision for each using following capital budgeting techniques;

a) NPV of projects if RRR is 14%.
b) PI (Benefit Cost Analysis) of projects if RRR is 14%. c)
IRR (Internal rate of return) of Projects.

Q5:
In Capital budgeting NPV method is the famous one which relies on discounted cash flow (DCF) technique. The project manager in Delta Engineering has received two proposals for a machine he may want to purchase. Using the following data about the machine, what is his most economical course of action?

Data	Machine A	Machine B
Life	3 years	5 years
Initial Cost (COF)	$110,000	$160,000
Annual Benefit (CIF)	$ 85,000	$ 92,000
Annual Cost (COF)	$ 22,000	$ 35,000

Give your recommendations based on NPV method for each project, and indicate the correct accept/reject decision for each. The required rate of return (cost of capital) is 14%.

Q6:
Your company is considering two mutually exclusive (only one could be selected) projects X and Y, whose costs and cash flows are shown below:

YEAR	X	Y
0	($1,000)	($1,000)
1	100	200
2	300	600
3	40 0	500
4	70 0	300

The projects are equally risky, and their cost of capital is 16 percent. You must make a recommendation based on the IRR.

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