## Subject: Business Mathematics

Q1 (3+7 Marks)
a) Discuss the importance of keeping record through financial statements for any business.
b) Prepare the balance sheet from the data used in the accounting cycle for Paul's Guitar Shop.
a. Accounts payables
49,000
b. Retained Earnings
11,950
c. Inventory 39,800
d. Accrued Expenses 450
e. Common Stock 10,000
f. Cash 32,800
g. Prepaid Rent $\quad 1,000$
h. Long Term Liabilities 99,500
i. Unearned Revenue $\quad 1,000$
j. Long Term Assets 98,000
k. Accounts Receivables 300

Question: 2 (10 Marks)
In 2003, XYZ, Inc. (a hardware retail company) sold 10,000 units of its product at an average price of $\$ 400$ per unit. Operating expenses including $50 \%$ selling and $50 \%$ administrative expenses for XYZ, Inc. in 2003 were $\$ 400,000$. XYZ had $\$ 2,000,000$ in debt outstanding throughout all of 2003. This debt carried an average interest rate of 10 percent. Finally, XYZ's tax rate was 40 percent. XYZ's fiscal year runs from January 1 through December 31. Given this information, construct XYZ's 2003 income statement.

Question: 3 (10 Marks)

From the balance sheet constructed in Question 1 calculate the following ratios for Paul's Guitar Shop.
a) Current Ratio
b) Liquidity Ratio

From the data given in Question 2 calculate the following ratios for XYZ, Inc.
a) Gross Profit Ratio
b) Operating Profit Ratio

Q4 (4+6 marks)
a) What is Capital budgeting discuss its importance
b) Mr XYZ owns a car rental company planning to start a new route. XYZ think the project having initial cost of Rs. 1000000 should have Payback period of 5 years following are the projected net cash flows;

| Year | Cash Flow (Rs) |
| :--- | :--- |
| O | 1000000 |
| 1 | 150000 |
| 2 | 200000 |
| 3 | 250000 |
| 4 | 300000 |
| 5 | 350000 |

The company should accept the project or not find out with the help of payback period method.

Q5 (10 marks)
With the help of data given in question 4 find out the Net Present Value of the project.
Additional required data;
Terminal cash flow is Rs 600000
Discounted rate is $12 \%$

