

Roll No.: \_\_\_\_\_

IIT Kharagpur  
Mid Semester Examination, Spring 2012-13  
**BM40002: Introduction to Financial Management**  
Duration: **2 hours**; Maximum Marks: **50**

**Important:** Answer all questions. If required, state your own assumptions and go ahead with answering the questions without waiting for clarification.

**Question 1:**

Mr. Sreeram left a lucrative job in the financial services industry and started his own consulting firm on 01 January, 2013 with an initial contribution of Rs.100,000. Mr. Shiva, his childhood friend gave an interest loan of Rs.80,000. This loan has to be repaid in 24 equal monthly installments [inclusive of interest], annual interest rate being 10%. Mr. Sreeram rented an office space and paid a deposit of Rs.20,000 to the owner of the building. The rent of Rs.5,000 per month is payable on the last day of the month. Mr. Sreeram took a computer on monthly rental of Rs.10,000. The rental for computer is payable at the beginning of the month. A secretary was appointed on a monthly salary of Rs.10,000. A set of office furniture was bought on 05 January for Rs.30,000.

During January, the firm provided services for Rs.50,000. Out of this, 20% were on credit, which is due to be collected in February.

Paid computer rental, office rent, monthly installment for loan and salaries as agreed for January, 2013. During the month, paid for office supplies costing Rs.3,000 but did not use them.

Analyze the transactions as it would affect the accounting equation [in tabular format]. What is the net profit made during January 2013? Prepare a cash flow statement [cash flow to be categorized as operating, financial or investment].

[12 Marks]

**Question 2:**

Refer financial statements [given in P.3] pertaining to Shriram Pistons & Rings Ltd.

- Analyse and comment on the financial performance of the company with focus on profitability, liquidity, solvency and market standing for years 2010-11 and 2011-12.
- Comment on the change in duration of operating cycle for 2011-12 in comparison to 2010-11.
- Also comment on the five factor Du-Pont analysis for the company for 2010-11 and 2011-12.

[13+2+5 = 20 Marks]

**Question 3:**

You have just won the lottery. You will receive Rs.10,00,000 today, and then receive 40 payments of Rs.500,000. These payments will start one year from now and will be paid every six months. A representative from Mikka Investments has offered to purchase all the payments from you for Rs.1 crore. If appropriate interest rate is a 9 percent APR compounded daily, should you take the offer? Assume there are 12 months in year, each with 30 days.

[3 Marks]

**Question 4:**

Mr. Bijon wants to save money to meet three objectives. First, he would like to be able to retire 30 years from now with a retirement income of Rs.2,50,000 per month for 20 years, with the first payment received 30 years and 1 month from now. Second, he would like to purchase an office space in Navi Mumbai in 10 years at an estimated cost of rs.35,00,000. Third, after he passes on at the end of the 20 years of withdrawals, he would like to leave an inheritance of Rs.75,00,000 to his nephew Mr. Sijon. He can afford to save Rs.21,000 per month for the next 10 years. If he can earn an 11 percent effective annual rate [EAR] before he retires and an 8 percent EAR after he retires, how much will he have to save each month in years 11 through 30?

[5 Marks]

**Question 5:**

As an equity investor your required rate of return is 12% per annum. An equity share is expected to provide dividend amounting Rs.15, Rs.18, Rs.24 at the end each year starting this year end. Afterwards dividend will grow @ 5% till perpetuity. How much would you like to pay for this equity share?

[3 Marks]

**Question 6:**

Zimmy Co. wants to issue new 20-year bonds for some much needed expansion projects. The company currently has 8 percent coupon bonds on the market that sell for Rs.1,095, make semiannual payments, and mature in 20 years. What coupon rate should the company set on its new bonds if it wants them to sell at par? [Face value of bonds; Rs.1,000]

[3 Marks]

**Question 7:**

Frank Corporation has a premium bond making semiannual payments. The bond pays a 8 percent coupon, has a YTM of 6 percent, and has 13 years to maturity. Kank Company has a discount bond making semiannual payments. This bond pays a 6 percent coupon, has a YTM of 8 percent, and also has 13 years to maturity. If interest rates remain unchanged, what do you expect the price of these bonds to be 1 year from now? In 3 years? In 8 years? What is going on here?

[4 Marks]

<b>Shriram Pistons &amp; Rings Ltd Industry: Auto Ancillaries - Engine Parts [Rs. Crore]</b>			
<b>INCOME:</b>	<b>2011-12</b>	<b>2010-11</b>	<b>2009-10</b>
Sales Turnover	1,077.91	906.33	805.21
Excise Duty	86.89	73.3	53.55
Net Sales	991.02	833.03	751.66
Other Income	9.84	6.94	9.14
Stock Adjustments	31.98	24.44	3.04
Total Income	1,032.84	864.41	763.84
<b>EXPENDITURE:</b>			
Raw Materials	316.82	252.2	207.57
Power & Fuel Cost	65.97	61.71	46.87
Employee Cost	168.28	131.22	105.05
Other Manufacturing Expenses	174.46	146.73	130.67
Selling and Administration Expenses	65.44	51.01	79.26
Miscellaneous Expenses	35.51	27.74	18.15
Total Expenditure	826.48	670.61	587.57
Operating Profit	206.36	193.8	176.27
Interest	20.46	18	19.15
Gross Profit	185.9	175.8	157.12
Depreciation	70.76	58.74	54.12
Profit Before Tax	115.14	117.06	103
Tax	31.23	34.37	34.08
Reported Net Profit	83.91	82.69	68.92
Extraordinary Items	-0.19	-0.51	-0.12
Adjusted Net Profit	84.1	83.2	69.04
P & L Balance brought forward	30	25	20
Appropriations	83.91	77.69	63.92
P & L Balance carried down	30	30	25
Dividend [for equity]	7.83	7.84	6.72
<b>SOURCES OF FUNDS:</b>	<b>2011-12</b>	<b>2010-11</b>	<b>2009-10</b>
Share Capital [Face value: Rs.10]	22.38	22.37	22.37
Reserves Total	440.98	367.68	296.37
Total Shareholders Funds	463.36	390.05	318.74
Secured Loans	262.62	183.63	151.22
Unsecured Loans	97.33	64.73	49.47
Total Debt	359.95	248.36	200.69
Current Liabilities and Provisions			
Current Liabilities	180.28	143.38	113.69
Provisions	41.22	35.21	54.55
Total Current Liabilities	221.50	178.59	168.24
<b>Total Liabilities</b>	<b>1044.81</b>	<b>817.00</b>	<b>687.67</b>
<b>APPLICATION OF FUNDS:</b>			
Gross Block	1000.93	837.15	725.03
Less : Accumulated Depreciation	446.42	380.57	327.12
Net Block	554.51	456.58	397.91
Capital Work in Progress	73.58	34.88	21.59
Investments	0.05	0.05	0.05
Current Assets, Loans & Advances			
Inventories	184.22	130.70	92.96
Sundry Debtors	182.80	131.49	112.04
Cash and Bank	8.00	36.34	33.47
Loans and Advances	41.65	26.96	29.65
Total Current Assets	416.67	325.49	268.12
Miscellaneous Expenses not written off	0.00	0.00	0.00
<b>Total Assets</b>	<b>1044.81</b>	<b>817.00</b>	<b>687.67</b>
Market price per equity share in Rs.	380.00	340.00	290.00