



UNIVERSITY OF RUHUNA

Faculty of Engineering

End-Semester 5 Examination in Engineering: May 2023

Module Number: IS 5302

Module Name: Financial Management

[Three Hours]

[Answer all questions]

Q1.

a) Identify internal and external users of financial information?

[02 Marks]

b) Define asset, liability, and stockholders' equity.

[02 Marks]

c) Gomez Limited has the following assets and liabilities.

	Rs.
Loan	180 000
Cash	90 000
Accounts Payable	110 000
Accounts receivable	170 000
Equipment	200 000

i. Classify each balance as an asset or a liability.

ii. Calculate shareholders' equity.

[04 Marks]

d) What are the objectives of financial statements?

[02 Marks]

- e) A company began the accounting period with Rs. 5,000,000 in owner's capital, ended with Rs. 7,500,000 in owner's capital, and the owner withdrew Rs. 3,000,000 during the period for personal use. Calculate the company's net income or loss for the period?

[02 Marks]

- f) As per the Conceptual Framework for Financial Reporting, there are qualitative characteristics that enhance the usefulness of information that is relevant and faithfully represented. Further, the framework also sets out the measurement of the elements of financial statements.

You are required to Explain two qualitative characteristics that enhance the usefulness of financial information.

[02 Marks]

- g) The following information was extracted from the books of Manel Stores, a sole proprietorship for the year ended 31st March 2022:

	Rs.
Total assets as at 31st March 2022	7,500,000
Capital as at 01st April 2021	5,000,000
Drawings made during the year	600,000
Liabilities as at 31st March 2022	1,700,000

Based on the above information, calculate the profit for the year ended 31st March 2022.

[04 Marks]

- h) A financial performance analysis includes analysis and interpretation of financial statements in such a way that it undertakes a full diagnosis of the profitability and financial soundness of the business. Financial ratios analysis is a way to identify the financial performance of a business.

You are required to State two reasons as to why the financial ratios analysis is important for an organization.

[02 Marks]

- i) The following data are available for Allen Clapp Corporation:

	Rs.
Net income	200,000
Depreciation expense	40,000
Dividends paid	60,000
Gain on sale of land	10,000
Decrease in accounts receivable	20,000
Decrease in accounts payable	30,000

How much is cash provided by operating activities using the indirect method for the statement of cash flows?

[02 Marks]

- j) The following table shows the balance sheet extract for SQUARE Limited.

Current Assets	Rs.	Current Liabilities	Rs.
Cash	75,000	Accounts Payable	65,000
Marketable Securities	60,000	Short term notes payable	80,000
Accounts receivables	56,000		
Inventory	40,000		

What is the cash ratio for the company?

[02 Marks]

[Total 24 Marks]

Q2.

- a) Explain how Cost-Volume Profit (CVP) analysis is related to planning for a profitable business.

[02 Marks]

- b) Describe the notion of costs behavior (variable vs. fixed).

[02 Marks]

- c) A store sells t-shirts. The average selling price is Rs. 1,500 and the average variable cost (cost price) is Rs. 900. Thus, every time the store sells a shirt it has Rs. 600 remaining after it pays the manufacturer. This Rs. 600 is referred to as the unit contribution.

- i. Suppose the fixed costs of operating the store (its operating expenses) are Rs. 10,000,000 per year. Find Break-even in units?

[02 Marks]

- ii. If the owner desired a profit of Rs. 2,500,000 what will be break-even point in Rupees?

[02 Marks]

- iii. If fixed costs rose to Rs. 11,000,000 calculate the break-even in units.

[02 Marks]

- iv. If the average selling price rose to Rs. 1,600, calculate the new-break even in units.

[02 Marks]

[Total 12 Marks]

Q3.

- a) Describe what is meant by the term 'the time value of money' and identify factors that ensure that monies received in different time periods will have different values.

[04 Marks]

- b) A company is considering which of two mutually exclusive projects it should undertake. The finance director thinks that the project with the higher NPV should be chosen, whereas the managing director thinks that the one with the higher IRR should be undertaken, especially as both projects have the same initial outlay and length of life. The company anticipates a cost of capital of 10%, and the net after tax cash flows of the projects are as follows:

Year	Project X	Project Y
	Rs.'000	Rs.'000
0	(200)	(200)
1	35	218
2	80	10
3	90	10
4	75	4
5	20	3

Required:

- i. Calculate the NPV and IRR of each project.

[06 Marks]

- ii. Recommend, with reasons, which project should the company select.

[02 Marks]

[Total 12 Marks]

Q4.

- (a) Define limiting factor and how should a company determine its optimal product mix when a limiting factor exists?

[04 Marks]

(b) Candy Hive Ltd. manufactures assorted sweet boxes in 3 different sizes and delivers to customer's door step. The following information is provided for the first quarter of 2023:

	Rs. (per unit)		
	A	B	C
Direct Material	800	1900	2800
Skilled Labour (at Rs.1,000/- per hour)	800	1100	1500
Packaging material cost (Rs.400/- per square meter)	160	240	360
Delivery Cost (Rs.200/- per kg)	200	300	500
Other Variable Overheads	150	200	250
Selling Price	2600	4400	6500
Budgeted Sales per quarter (in units)	1000	600	200

Quarterly Fixed Overheads will be Rs. 150,000/- for 2023.

For the first quarter of 2023, the availability of delivery weight has been estimated as 2,200 kg.

You are required to calculate the optimal production mix based on the limiting factor (Delivery Weight).

[08 Marks]

[Total 12 Marks]

Present value and Future value tables

Table 3 - Present value interest factors for single cash flows. $PV = 1/(1 + k)^n$

Period (n) / per cent (k)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8333
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561	0.7432	0.6944
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575	0.6407	0.5787
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355	0.6133	0.5921	0.5718	0.5523	0.4823
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674	0.5428	0.5194	0.4972	0.4761	0.4019
6	0.9420	0.8880	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645	0.5346	0.5066	0.4803	0.4556	0.4323	0.4104	0.3349
7	0.9327	0.8706	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835	0.5470	0.5132	0.4817	0.4523	0.4251	0.3996	0.3759	0.3538	0.2791
8	0.9235	0.8535	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039	0.3762	0.3506	0.3269	0.3050	0.2326
9	0.9143	0.8368	0.7664	0.7026	0.6446	0.5919	0.5439	0.5002	0.4604	0.4241	0.3909	0.3606	0.3329	0.3075	0.2843	0.2630	0.1938
10	0.9053	0.8203	0.7441	0.6756	0.6139	0.5584	0.5083	0.4632	0.4224	0.3855	0.3522	0.3220	0.2946	0.2697	0.2472	0.2267	0.1615
11	0.8963	0.8043	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875	0.3505	0.3173	0.2875	0.2607	0.2366	0.2149	0.1954	0.1346
12	0.8874	0.7885	0.7014	0.6246	0.5568	0.4970	0.4440	0.3971	0.3555	0.3186	0.2858	0.2567	0.2307	0.2076	0.1869	0.1685	0.1122
13	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0.4150	0.3677	0.3262	0.2897	0.2575	0.2292	0.2042	0.1821	0.1625	0.1452	0.0935
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0.2992	0.2633	0.2320	0.2046	0.1807	0.1597	0.1413	0.1252	0.0779
15	0.8613	0.7430	0.6419	0.5553	0.4810	0.4173	0.3624	0.3152	0.2745	0.2394	0.2090	0.1827	0.1599	0.1401	0.1229	0.1079	0.0649
16	0.8528	0.7284	0.6232	0.5339	0.4581	0.3936	0.3387	0.2919	0.2519	0.2176	0.1883	0.1631	0.1415	0.1229	0.1069	0.0930	0.0541
17	0.8444	0.7142	0.6050	0.5134	0.4363	0.3714	0.3166	0.2703	0.2311	0.1978	0.1696	0.1456	0.1252	0.1078	0.0929	0.0802	0.0451
18	0.8360	0.7002	0.5874	0.4936	0.4155	0.3503	0.2959	0.2502	0.2120	0.1799	0.1528	0.1300	0.1108	0.0946	0.0808	0.0691	0.0376
19	0.8277	0.6864	0.5703	0.4746	0.3957	0.3305	0.2765	0.2317	0.1945	0.1635	0.1377	0.1161	0.0981	0.0829	0.0703	0.0596	0.0313
20	0.8195	0.6730	0.5537	0.4564	0.3769	0.3118	0.2584	0.2145	0.1784	0.1486	0.1240	0.1037	0.0868	0.0728	0.0611	0.0514	0.0261
21	0.8114	0.6598	0.5375	0.4388	0.3589	0.2942	0.2415	0.1987	0.1637	0.1351	0.1117	0.0926	0.0768	0.0638	0.0531	0.0443	0.0217
22	0.8034	0.6468	0.5219	0.4220	0.3418	0.2775	0.2257	0.1839	0.1502	0.1228	0.1007	0.0826	0.0680	0.0560	0.0462	0.0382	0.0181
23	0.7954	0.6342	0.5067	0.4057	0.3256	0.2618	0.2109	0.1703	0.1378	0.1117	0.0907	0.0738	0.0601	0.0491	0.0402	0.0329	0.0151
24	0.7876	0.6217	0.4919	0.3901	0.3101	0.2470	0.1971	0.1577	0.1264	0.1015	0.0817	0.0659	0.0532	0.0431	0.0349	0.0284	0.0126
25	0.7798	0.6095	0.4776	0.3751	0.2953	0.2330	0.1842	0.1460	0.1160	0.0923	0.0736	0.0588	0.0471	0.0378	0.0304	0.0245	0.0105