

CERTIFIED PUBLIC ACCOUNTANT ADVANCED LEVEL 2 EXAMINATIONS A2.1: STRATEGIC CORPORATE FINANCE

DATE: WEDNSDAY 23, AUGUST 2023

INSTRUCTIONS:

- 1. Time Allowed: 3 hours 45 minutes (15 minutes reading and hours 30 Minutes writing).
- 2. This examination has two sections: A & B.
- 3. Section A has one Compulsory Question while section B has three optional questions to choose any **two**.
- 4. In summary attempt **THREE** questions.
- 5. Marks allocated to each question are shown at the end of the 23 ICPARAUGUST 2023 ICPARAU
- 6. Show all your workings where necessary.
- 7. The question paper should not be taken out of the examination 23 ICPARAUGUST 2023 ICPARA

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SECTION A

OUESTION ONE

a) Investment Proposal I

Ganza Company Ltd (GCL) is a fertilizer manufacturing company. It is considering investing FRW 12,000,000 in the purchase of a new machine for manufacture of fertilizers in one its branches located in a remote area in the Western part of the country. The expected life of the machine is 5 years.

The production manager expects that under favorable market conditions 1,000,000 Kgs will be produced and sold each year at selling price of FRW 5 per kg. Variable production costs are expected to be FRW 1.2 per kg while incremental fixed costs are expected to be FRW100,000.

If the machine is purchased, it would have zero scrape value at the end of the 5 years. The company's nominal discount rate is 10% per year for investment appraisal purposes.

In a recent board meeting, various issues were discussed among were investment proposal, downsizing the labor force of company, reducing the salary of the Managing Director and reducing pollution that would result from the investment in the remote area of the country. Some members opposed the idea of investing in the remote area claiming it would cause more health hazards to the residents. Other members reacted to the issue of reducing the employees and the MD's salary as not being fair because the company is there for all the stakeholders not just the shareholders. The meeting suggested some consultations on each of the issues discussed.

Investment Proposal II

In the same meeting, the Finance Manager had proposed an idea of the purchasing shares in Mugera Company Ltd (MCL) which also deals with food processing instead of the first investment proposal. A summary of the financial information gathered about the industry and company in which MCL operates indicated that the risk-free rate is 5% and the market return is 9% while MCL's equity beta was 1.5

Required:

You are hired by the chair of the board as independent consultant to look into the matter and provide them with the solutions to those issues. in your capacity as a consultant,

i) Evaluate the sensitivity of the project's net present value (NPV) to a change in revenue and variable cost and discuss the use sensitivity analysis in evaluating project risk.

(14 Marks)

- ii) Advise the board whether the investment proposal I is financial acceptable using the Internal Rate of Return (IRR). (5 Marks)
- iii) Highlight three draw backs of sensitivity analysis as a method of treating risk and uncertainty. CPARAUGUST2023 ICPARAUGUST2023 ICPARAUGU
- iv) Explain five causes of the agency problem and discuss five ways of solving that problem.
- y) Calculate the required rate of return for investment proposal II using Capital Asset
 Pricing Model. (2 Marks)
- vi) Explain three assumptions and three limitations of using Capital Asset pricing Model

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b) Agaciro Limited

Agaciro Limited (AL) is company that distributes construction materials in the East Africa. The company is headquartered in Kigali, Rwanda and has been in operation for more than a decade. AL is considering opening up other branches in Kenya and Tanzania next year.

Below are the extracts of the financial statements of Agaciro Limited.

Statement of Profit and Loss for the year ended 31st December 2022

3 Particulars 023 ICPARAUGUST2023 ICPAR UGUST2023 ICPARAUGUST2 20	22 Araugust 2023 icparaugus 2021 i
3 ICPARAUGUS 12023 ICPARAUGUS 12023 ICPARAUGUS 12023 I FRW U "Millioi	n"Paraugust202 FRW A"Million"I
Revenue (All credit sales) 12023 ICPAR UGUST2023 ICPARAUGUST 9,20	00 raugust2023 icparaugu: $4,600$
Cost of sales 023 icparaugust 2023 icparaugust 2023 icparaugust 2023 icparaugust 26,5	00 RAUGUST 2023 ICPARAUGUS, 300
Gross profit)23 icparaugust2023 icpar lugust2023 icparaugust 2,7	00 RAUGUST 2023 ICPARAUGUS 1,300 RAUGUST 2023 ICPARAUGUS 1,300
Less: Expenses, 1CPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST21.33	80 RAUGUST 2023 ICPARAUGUST 2700
Net Profit st2023 icparaugust2023 icparaugust2023 icparaugust2123.	20 ARAUGUST 2023 ICPARAUGUST 600

Statement of financial position as at 31st December 2022

Particulars 023 ICPARAUGUST 2023 ICPARAU	GUST2023 ICPARAUGUST202 2022	AUGUST2023 ICPARAUGUS'2021
3 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAU	GUST2023 ICPFRW"Million"	ugust202FRW "Million"
Non-Current Assets at NBV231CPARAU	GUST2023 ICPARAUGUST2023 ICPAR	AUGUST2023 ICPARAUGUST2023 I
Property, plant and equipment CPARAU	GUST2023 ICPARAUGUST2 $47,\!000$	1000570031 CPARAUGUS $5{,}000$
Other assets 2023 ICPARAUGUST 2023 ICPARAU	gust2023 icparaugust2023 icparaugust202 $4,\!800$	august2023 icparaugus 2,600
Total Non - Current Assets 23 ICPARAU	gust2023 icparaugust2023 icpara gust2023 icparaugust2 21,800 7	.ugust2023 icparaugust2023 .ugust2023 icparaugus 7,600 i
S. Paraugust 2023 icparaugust 2023 icparau Current Assets icparaugust 2023 icparau	GUST 2023 ICPARAUGUST 2023 ICPARA GUST 2023 ICPARAUGUST 2023 ICPARA	AUGUST 2023 ICPARAUGUST 2023 I AUGUST 2023 ICPARAUGUST 2023 I
SICPARAUGUST2023 ICPARAUGUST2023 ICPARAU Inventory/sT2023 ICPARAUGUST2023 ICPARAU	GUST2023 ICPARAUGUST202 $3,500$	august 2023 icparaugus 1,200
Trade receivables PARAUGUST 2023 ICPARAUGUST 2023 ICPARAU	GU ST2023 ICPARAUGUST2025,600	TUGUST2023 ICPARAUGUS1,400
Cash and cash equivalents	GUST2023 ICPARAUGUST202 1,200	UGUST2023 ICPARAUGU 4,400
Total Current Assets	GUST2023 ICPARAUGUST2(10,300)	UGUST2023 ICPARAUGU 7,000
Total Assets 023 ICPARAUGUST 2023 ICPARAU	GUST2023 ICPARAUGUST2 32,100	UGUST2023 ICPARAUG 14,600
Equity and Liabilities GUST2023 ICPARAU	GUST2023 ICPARAUGUST2023 ICPARA GUST2023 ICPARAUGUST2023 ICPARA	AUGUST2023 ICPARAUGUST2023 I AUGUST2023 ICPARAUGUST2023 I
Equity General Representation of the Equity (1997) 1	GU ST2023 ICPARAUGUST2023 ICPARA GU ST2023 ICPARAUGUST2023 ICPARA	AUGUST2023 ICPARAUGUST2023 I AUGUST2023 ICPARAUGUST2023 I
3 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAU Share Capital 23 ICPARAUGUST2023 ICPARAU	GUST2023 ICPARAUGUST2023 I 500 7	AUGUST2023 ICPARAUGUST2 500
3 icparalic ^a st2003 icparalicust2003 icparali Reserves ust2023 icparaugust2023 icparau	GUST2023 ICPARAUGUST2023 ICPAR $_{ m 5}$ GUST20 $_{ m 17,200}$ $_{ m 6}$	MGUST2003 ICPARAUGUST20023 MUGUST2023 ICPARAUGU: $4,500$
s icparaugust2020 icparaugust2023 icparau S Total Equity 23 icparaugust2023 icparau	gu <mark>st2023 icparaugust2023 icpar</mark> gust2023 icparaugust20 17,700 0	lugust2023 ioparaugust2023 lugust2023 ioparaugu: 5,000
Non-Current Liabilities \$12023 ICPARAU	<mark>OUST2023 ICPARAUGUST2023 ÍCPAR</mark> GUST2023 ICPARAUGUST2023 ICPARA	MOUST2023 ICPARAUGUST2023 I MUGUST2023 ICPARAUGUST2023 I
Long-term borrowings gust2023 icparau	gust2023 icparaugust2023.00 0 7. gust2023 icparaugust202 3,000 7.	ugust2023 icparaugus 5,000
Current Liabilities AUGUST 2023 ICPARAU	GUST2023 ICPARAUGUST2023 ICPARA	UGUST2023 ICPARAUGUST2023 I
Trade payables	GUST2023 ICPARAUGUST2023,400	UGUST2023 ICPARAUGUST,550
Short-term borrowings GUST2023 ICPARAU	GUST2023 ICPARAUGUST2026,220	ugust2023 icparaugust 600
Bills payable 22 ICPARAUGUST2023 ICPARAU	GUST2023 ICPARAUGUST2023 ICPARAUGUST2021 1700 R. GUST2023 ICPARAUGUST2021 1700 R.	AUGUST2023 ICPARAUGUST2023 ICPARAUGU 2,400
Dividend payable PARAUGUST2023 ICPARAU	GUST2023 ICPARAUGUST2025 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 IC	AUGUST2023 ICPARAUGUST2023 AUGUST2023 ICPARAUGUST20 50
Total Current Liabilities 12023 ICPARAU	GUST2023 ICPARAUGUST2023 ICPARA GUST2023 ICPARAUGUST20 11,400 0	AUGUST2023 ICPARAUGUST2023 AUGUST2023 ICPARAUGU 4,600
Total Liabilities PARAUGUST2023 ICPARAU	GUST2023 ICPARAUGUST2023 10 PARA GUST2023 ICPARAUGUST20 14,400	AUGUST2023 ICPARAUGUS 12 023 I AUGUST2023 ICPARAUGUS 9,600
Total Equity and liabilities 223 ICPARAU	gi st2023 icparaligiist2023 icpara gu st2023 icparaugust2 32,100 4	UGUST2023 ICPARAUGUST2023 I UGUST2023 ICPARAUGU 14,600

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Additional information:

- 1. AL is allowed a period of 30 days from its creditors.
- 2. AL uses 365 days of the year.

Required:

- i) You are requested by the management of AL to prepare a report that assesses the company's working capital management using working capital cycle for the year ended 31st December 2022. (5 Marks
- ii) Discuss five factors that influence for formulation of the effective working capital 2023 IC policy for any business 2023 IC paraugust 2023 IC paraugust

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SECTION B

QUESTION TWO

(a) Ruyonza Company Ltd

Ruyonza Co Ltd (RCL) is a company which distributes and sells electric equipment. The company based in Rwanda and has existed for over 10 years. RCL's treasury department hedges foreign risks of transactions using forward contracts and money market contracts and reports its results in its home currency.

RCL exported electric products worth EGP 50 million to its Egyptian customer. The customer is expected to pay for products on 31 July 2023. It is currently 31 January 2023. The company is considering establishing a subsidiary in Egypt.

Forward contract

Exchange rates EGP/FRW

23CPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 23CPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023	ICPARAUGUST2023 ICPARAUGUST2023 152172 UG 3 15229 ICPARAUGUST2023 ICPARAUGUST2
Three months forward GUST2023 ICPARAUGUST202	ICPARAUGUST2023 ICPARAUGUST2023 35242 G 35261 ICPARAUGUST2023
Six months forward RAUGUST2023 ICPARAUGUST2023	ICPARAUGUST2023 ICPARAUGUST2023 5276 G 3.5298

Money Market Contract GUST2023 ICPARAUGU

)2)2	Country ust2023 icparaugust2023 icparaugust20 Country ust2023 icparaugust2023 icparaugust20	Deposit rate	Borrowing rate
)2	SECPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST20 SEGYPGAUGUST2023 ICPARAUGUST2023 ICPARAUGUST20	23 ICPARAUGUST202 6.0% A	UGUST2023 ICPARAUGUT022%IC UGUST2023 ICPARAUGUT022%IC
02	Rwanda Wanda Sieparaugust2023 Icparaugust2023 Icparaugust20	23 ICPARAUGUST2023 7.4% 23 ICPARAUGUST2023 ICPARA	UGUST2023 ICPARAUGU 11.6%

Required:

- i) Evaluate which of the two methods of hedging would provide RCL with the better receipt from the Egyptian customer (5 Marks)
- ii) Explain three foreign currency risks that RCL would be exposed to and their impact to the company if it was to continue with international trade. PARAUGUST 2023 IMPARAU (6 Marks)

(b) Kazi Ltd

Kazi Ltd, a Rwandan Company dealing in mining, wishes to borrow FRW 700 million for a period of six months from Kigali Commercial Bank in three months' time. Once the loan is taken out the bank will fix the interest rate at its prevailing lending rate. The Finance Manager of Kazi Ltd reckons that the lending rate could be 11.5% per year at its lowest or 13.5% per year at its highest. The Finance Manager would like to hedge against interest rate risk arising from the future loan and the company's bank has offered a 3-9, 12.5% - 11.5% forward agreement. Interest on the loan would be payable at the end of the loan period.

Required:

Evaluate the proposed forward rate agreement offered by the bank as a way of managing the interest rate risk anticipated by Kazi ltd. (4 Marks)

(c) Discuss the following approaches to managing / hedging transactions exposure:

i) Leading and Lagging 2023 ICPARAUGUST2023 IC

(d) Briefly explain what is meant by a currency swap as used in international trade

(2 Marks)

(Total: 25 Marks)

QUESTION THREE

a) Mutoni is an investor who is considering investing her money in Kanombe Ltd, an unlevered company. She holds 15% shares in Kabeza Ltd a levered company. Mutoni has been told by a friend that the value of a firm increases with a firm that uses debt in its capital structure compared to the firm that is all financed by equity. She thinks that if a company borrows more funds, it will be declared bankrupt shortly due to failure to pay those debts.

You are approached by Mutoni as an investment consultant to guide on the investment proposals. The extract of financial information for both companies:

Sources of capital ARAUGUST 2023 ICPARAU	GUST2023 ICPARKabeza Ltd	RAUGUST2023 Kanombe Ltd
D is icparaugusi 2023 icparaugusi 2023 icpara Dis icparaugust 2023 icparaugust 2023 icpara	JGUST2023 ICPARAUGUST2023 JUNE 1	RAUGUST 2023 ICPARAUGUST 2023 I
Debt (@ 10%) 3 ICPARAUGUST 2023 ICPARAU	GUST2023 ICPAR 200,000,000	RAUGUST2023 ICPARAUGUST2023 I
Equityugust2023 icparaugust2023 icparau	JGUST2023 ICPAR 200,000,000	RAUGUST2023 ICP 400,000,000
Earnings before interest and tax CARA	GUST2023 ICPARA 50,000,000	RAUGUST2023 ICPA 50,000,000

Additional information:

- 1. Both companies face some business risks
- 2. Capital employed is FRW 400,000,000
- 3. Corporate tax is 30%
- 4. Cost of equity is 12.5%
- 5. Assume that the net earnings will continue to be constant in the future

Required:

- i) Evaluate the proposed investment by calculating an increase in the earnings of the investor if she switches her holding from Kabeza Ltd to Kanombe Ltd. (8 Marks)
- ii) Explain to Mutoni about capital structure theory of Modigliani Miller Approach, elaborating the approach with and without tax. GUST2023 ICPARAUGUST2023 ICPARAU (6 Marks)
- b) The Finance Manager of Blessings Co is concerned that the company may be overtrading and approached you to analyze the financial data of the company so as to verify and then help them to solve the problem.

Financial information of the company

SCPARAUGUST2023 ICPARAUGUST2023 ICPĀRAŬGUST2023 ICPARAUGUST2023 ICPARAUGUS 2022 P articulars 2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUST2023 ICPARAUGUS 2022	PARAUGUS 2021
3 ICPARAUGUST2023 ICPARAUGUST2	FRW"000"
Credit sales 2023 ICPARAUGUST2023 ICPARAUGUST2	PARAUG 45,750
Cost of sales 023 ICPARAUGUST2023 ICPARAUGUST2	PARAUGI42,620
Operating profit icparaugust 2023 icparaugust 2023 icparaugust 2023 icparaugust 2023 icparaugus 3,600	paraugus 3,130
Less: interest 023 icparaugust 2023 icparaugust 2023 icparaugust 2023 icparaugust 2020 icpa	PARAUGUST 250
Profit before taxation ugust2023 icparaugust2023 icparaugust2023 icparaugust2023 icparaugus3,300	PARAUGU 2,880

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ICPARAUGUS 2022	PARAUGUS 2021
ICPAFRW"000"IC	PAFRW."000"1
idparaugu 15,620	paraug 14,750
ICPARAUGUST 2023 IC ICPARAUGUST 2023 IC	PARAUGUS 12023 I PARAUGUS 12023 I
5,400	3,400
I PARAUGUS 5,200	PARAUGU 3,200
IC PARAUGU 10,600	PARAUGU 6,600
ICPARAUGU <mark>26,220</mark>	paraugi 21,350
ICPARAUGUST2023 I	PARAUGUST2023 I
ic paraugus 7,000	paraugus 7,000
id paraugus 7,540	PARAUGUS 6,450
10 PARAUGU 14,540	PARAUG 13,450
ICPARAUGUST2023 IC	PARAUGUST2023 I
ICPARAUGUS5,850	PARAUGU 3,400
ICPARALIGIIST2023 IC	PARAUGU 2,500
idparaugustéese idparaugus 9,680	PARAUGUS 5,900
ICPARAUGUST2023 IC ICPARAUGUST2023 IC	PARAUGUST2023 I PARAUGUST2023 I
ICPARAUGUS 2,000	PARAUGU 2,000
26,220	21,350
	PARAUGU 5,400 PARAUGU 5,400 PARAUGU 5,400 PARAUGU 5,400 PARAUGU 5,200 PARAUGU 5,200 PARAUGU 7,600 PARAUGU 7,000 PARAUGU 7,540 PARAUGU 7,540 PARAUGU 7,540 PARAUGU 14,540 PARAUGU 12,000 PARAUGU 5,850 PARAUGU 5,850 PARAUGU 9,680 PARAUGU 9,680 PARAUGU 2,000

Assume 365 days of the year

Required:

i) Use the above financial information to discuss, with supporting calculations, whether or not Blessings Co is overtrading.

ii) Explain to the Finance Manager two causes and two remedies of overtrading for the 23 ICPARAUGUST2023 ICPAR

(Total: 25 Marks)

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OUESTION FOUR

a) Abeza Ltd (AL) is considering takeover of Baho Ltd (BL) and Cyuma Ltd (CL). The financial data for the three companies is provided in the table below:

Particulars 2023 ICPARAUGUST 2023 ICPARA	Saho Ltd. Cyuma Ltd.
Equity share capital each FRW 10 ("Million") 600	AUGUST 240 PARAUGUST 120 AUGUST 240 PARAUGUST 20 A
Earnings (FRW "Million") 2023 ICPARAUGUST2023 ICPA AUGUST20120 ARA	AUGUST20 24 C PARAUGUST20 24 C AUGUST20 2 4C PARAUGUST20 24 C
Market price of each share (FRW) ARAUGUST2023 ICPA AUGUST202 90	AUGUST20441 PARAUGUST20 54 10 AUGUST20241 PARAUGUST20 5 410

Required:

- i) Calculate the Price Earnings Ratio of each the three companies in the data provided 23 ICPARAUGUST 2023 I
- ii) Compute the Earnings per share of AL after the acquisition of BL and CL separately assuming the takeover takes place by exchange of equity shares and the exchange ratio is based on the prevailing market price. With Justification would you recommend AL to takeover either one or both companies? (7 Marks)
- iii) Brieflys explaimethree arguments for and athree arguments against mergers and concept and concept
- b) Iriba Company Ltd (ICL) is a firm that specializes in the production of freshly imported farm products from Denmark. ICL has been in operation for 15 years in Western province of Rwanda. The industry in which ICL operates is characterized by high levels of innovation and competition from old and new entrants in that some disappeared very quickly from the seen. ICL is considering venturing in the production of new products so as to survive in the market however the CEO wants to first know their performance along with best in the industry. You have been hired as an analyst for ICL to analyze some of the key financial performance indicators with a benchmark to industry. You are provided you with the following data for ICL and their industry.

3 icparaugust2023 icparaugust2023 icparaugust 3 icparaugust2023 icparaugust2023 icparaugust 3 Financial Ratios paraugust2023 icparaugust	2023 ICPAR 2023 ICPAR 2 022 AR	AUGUST2023 ICP. AUGUST2023 ICP. A1 2021 r2023 ICP.	ARAUGUST2023 ARAUGUST2023 A 2020 ST2023	2022 Industry Average
Quick Ratio 2023 ICPARAUGUST 2023 ICPARAUGUST	1.026	1.031	1.028	ICPARAUGUS 1.032
Current Ratio 23 ICPARAUGUST 2023 ICPARAUGUST	1.32°	$^{\mathrm{AUGUST20}}_{\mathrm{AUGUST20}}$	ARAUGUST2023	ICPARAUGUST 1026
Days' sales in receivables T2023 ICPARAUGUST	2023 I T 15 R	AUGUST2023 97 P	ARAUGUST 95 23	ICPARAUGU 30.32
Debt to Equity 3 ICPARAUGUST 2023 ICPARAUGUST	02:0.78	AUGUST2(0.86 P	araugu 0.91 23	icparaugust 0.89
Profit Margin 23 ICPARAUGUST 2023 ICPARAUGUST	0.085	0.072	ARAUG 0.061 23	icparaugu 0.075
Total Asset Turnover UGUST 2023 ICPARAUGUST	0.54	$0.65^{\rm P}$	ARAUGU 0.70	ICPARAUGUST 0.40
Equity Multiplier PARAUGUST 2023 ICPARAUGUST	2023 1.75 R	AUGUST201.85P	RAUGU1.90	ICPARAUGUST1088
Interest Coverage Ratio ust 2023 ICPARAUGUST	2023 I ().9 R	AUGUST20 4.38 P.	araugu 4:45 23	icparaugust4:65
Inventory Turnover RAUGUST2023 ICPARAUGUST	62.65	AUGUST 42.42	RAU 32.25	icparaugus 33.25
Long-term debt to Total Assets Ratio	0.44	$\frac{10GUST2}{10GUST2}$ 0.40	ARAUGU 0.35	ICPARAUGUST 0.351

Required:

Assess the financial performance of the company with regard to its ratios with the industry for the given years above. The selected performance indicators are solvency and leverage, asset management and liquidity.

(Total: 25 Marks)

A2.1 ARAUGUST 2023 ICPARAUGUST 2023 ICPA

2023 ICPARAUGUST2023 ICPARAUGU

Period	GUST21%	PARA2%	T2023%	RAU 4%	023 5%R	AUG 6%	2310 7%	GUS 8%	1CPA 9%	10%
23 ICPARAU 23 ICPARAU	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
23 ICPAR2U	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826
23 ICPAR 3 U	GU 0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751
23 ICPARAU 23 ICPAR <mark>4</mark> U	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683
23 ICPARAU 23 ICPARAU	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621
23 ICPAR 23 ICPARALI	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564
23 ICPARAU	0.933	0.871	0.813	0.760	0.711R	0.665	0.623	0.583	0.547	0.513
23 ICPAR	0.923	0.853	0.789	R0.731	0.677R	A 0.627	0.582	0.540	0.502	0.467
23 ICPARAU 23 ICPARAU	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424
23 ICPAROU 23 ICPAROU	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386
23 ICPARAU	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350
23 ICPA }2 U	0.887	0.788	T 0.701P	R 0.625	0.557R	A 0.4970	23 0.444 .u	0.397	0.356	0.319
23 ICPARAU 23 ICPAR <mark>3</mark> U	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290
23 ICPARAU 23 ICPARAU	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263
23 ICPARSU	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239

Present value interest factor of FRW1 per period at i% for n periods, PVIF(i,n)

Period	UST11%	PAR 12%	13%	RA 14%	15%	16%	17%	18%	19%	20%
3 ICPARAUC	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
3 ICPARAUC	0.812	0.797	0.783	0.769	0.756	a 0.743	23 0.731 4	0.718	0.706	0.694
3 ICPARAUC 3 ICPARAUC	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579
3 ICPARAU	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482
3 ICPAR 5 UC	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402
3 ICPAR 6 UC	0.535	P/0.507	0.480	0.456	0.432R	A 0.410	230.390	0.370	0.352	0.335
3 ICPARAUC 3 ICPARAUC	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279
3 ICPARAUC 3 ICPARAUC	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233
3 ICPAR9UC	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194
3 ICPA RO UC	352 O	P/0.322	0.295	R0.270	0.247R	AU0.2270	230.208	0.1913	100.176	0.162
3 ICPARAUC 3 ICPARAUC	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135
3 ICPARAUC 3 ICPARAUC	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112
3 ICPARALIC	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093
3 ICPAPAU	0.232	0.205	0.181	0.160	0.141R	0.125	23 0.14 1	0.099	0.088	0.078
3 ICPARAGE 3 ICPA R5 UC	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065
THE STEATER THE	AT TRACKS IN VISUALITY	TEATERTIES	PIVILLA IN THE PARTY OF THE PAR	TAR DIR STEEL STO	17 31 31 2 17 31 3 2 1 3	A T TENT TENT TO THE	117 17 1110 110 1	TANK TENEVISION OF THE	TESTINITATION	THE STREET STREET

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Present value interest factor of an (ordinary) annuity of FRW1 per period at i% for new control of the period of the period of the periods, PVIFA(i,n). August 2023 ICPARAUGUST 2023 ICPARAUGUST

Period	GUST21%	PARA 2%	2023 3%	AUGU4%	5%	6%	CPA7%	8%	9%	10%
3 ICPARAU	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
3 ICPAR 2 U	gus 1.970 c	pafa942s	1201:913	AU 1.886)	3 id:859	1.833	1.808	1.783	1.759	1.736
3 ICPARAU 3 ICPAR <mark>3</mark> U	2.941	2.884	2.829	Au2.775	2.723	2.673	2.624	2.577	2.531	2.487
3 ICPARAU 3 ICPARAU	3.902	3.808	$^{12}_{12}$ 3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170
3 ICPAR 5 U	4.853	PA 4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
3 ICPAR 6 U	GUS 5.795 10	PAI5.6018	1205.417	AU5.242	315.076	4.917	4.767	4.623	4.486	4.355
3 ICPARAU 3 ICPARAU	6.728	PA 6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868
3 ICPARAU 3 ICPARAU	7.652	PA 7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
3 ICPAR 9 U 3 ICPARAU	8.566	8.162	7.786	AU 7.435	7.108	6.802	6.515	6.247	5.995	5.759
3 ICPAROU	9.471	PA 8.983	8.530	AU8.111	3 7.722	7.360	7.024	6.710	6.418	6.145
3 ICPARAU	10.368	PA9.787s	209.253	AU8.760	8.306	7.887	7.499	7.139	6.805	6.495
3 ICPARAU 3 ICPARAU	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
3 ICPAR3U 3 ICPARAU	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103
3 ICPARALI	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367
3 ICPA R5 U	13.865	P12.849	11.938	A11.118	10.380	9.712	9.108	8.559	8.061	7.606
	-115-1-711-73-16	PARATICITS	PARTY STREET	A 1 1 2 1 1 5 1 7 11	1 2 11 11 1 1 A L A L A L		11 120 120 110	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		

Present value interest factor of an (ordinary) annuity of FRW1 per period at i% for n periods, PVIFA(i,n). AUGUST2023 ICPARAUGUST2023 ICPARAUG

Period	us 11%	PA 12%	T2013%	RA 14%	15%	16%	31.17%	18%	CP 19%	20%
23 ICPARAIJG 23 ICPARAŬG	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833
3 ICPARA2G	1.713	1.690	1.668	R1.647	1.626	1.605	1.585	1.566	1.547	1.528
3 ICPARA 3 G	2.444	P/2.402	T2.361P	R2.322	2.283R	2.246	3 2.210 U	2.174 3	2.140	2.106
3 ICPARAUC 3 ICPARA <mark>4</mark> G	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
3 ICPARADO 3 ICPARADO	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
3 ICPARA	4.231	P4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
3 ICPARA 7 G	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
3 ICPARASC	5.146	4.968	4.799	4.639	4.487	4.344	3 4.207 U	4.078	3.954	3.837
3 ICPARA 3 ICPARA	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192

End of question Paper

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