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CIFA PART III SECTION 6

INTERNATIONAL FINANCE

FRIDAY: 1 December 2017.   **Time Allowed: 3 hours.**

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

QUESTION ONE
(a)   Examine six causes of balance of payments (BOP) disequilibrium in a country.   (6 marks)

(b)   Capricon Limited, a company based in Kenya, exports milk to Ghana but the strong Kenyan shilling (KES) against the Ghanaian Cedi (GHS) hurts sales of the company's milk in Ghana. In the Ghanaian market, Capricorn Limited faces competition from milk producers in Cameroon and Mali whose currencies remain stable relative to the value of Cedi.

     Required:
     Suggest four measures that you would recommend to Capricon Limited to enable it maintain its market share in Ghana.   (4 marks)

(c)   (i)   Explain the term "currency crisis".   (1 mark)

     (ii)   Describe five warning signs of a currency crisis in a country.   (5 marks)

(d)   You have recently been hired as a financial analyst at Urembo Limited, a locally incorporated company that deals in beauty products imported from the United States of America (USA). As the person in charge of negotiating rates of exchange at Urembo Limited, you have realised that the Kenyan shilling has recently been weakening against the United States Dollar (USD), the currency that settles the suppliers payments.

     Assume that you have received real time spot quotations from your local bank as follows:

     1£   =   \$1.9724
     1€   =   \$1.3450
     1£   =   €1.4655

     Required:
     Illustrate how you could benefit from triangular arbitrage when settling a payment worth 5 million USD.   (4 marks)
     (Total: 20 marks)

QUESTION TWO
(a)   Identify four participants in a foreign exchange market, citing one role played by each.   (4 marks)

(b)   The following information relates to exchange rates in the United States and Canada:

Spot exchange rate (CAD/USD)	1.2923
1 – year treasury bill interest rate in the United States	0.55%
1 – year treasury bill interest rate in Canada	0.95%

     Required:
     (i)   Compute the one-year forward rate.   (2 marks)

     (ii)   Interpret the results in (b) (i) above.   (1 mark)

(c) Describe the following types of fixed exchange rate regimes:

    (i)   No separate legal tender system.   (1 mark)

    (ii)   Shared currency system.   (1 mark)

    (iii)   Currency board system.   (1 mark)

    (iv)   Target zone system.   (1 mark)

    (v)   Fixed parity system.   (1 mark)

(d) Distinguish between "sterilized intervention" and "unsterilized intervention" as used in the foreign exchange market.
                                                               (4 marks)

(e) Sarah Adams, a United States of America (USA) based investor has 10,000 United States dollars (USD). She intends to invest in Petho Limited's shares, a firm quoted at the Nairobi Securities Exchange (NSE) in Kenya. The market price per share of Petho Limited's shares is KES 50. The spot exchange rate is 1USD = 105.20 KES.

Required:

    (i)   The number of Petho Limited's shares that Sarah Adams could purchase.   (2 marks)

    (ii)   The investor's return assuming that in one year, the market price of Petho Limited's shares has increased to KES 55 per share and that the exchange rate has changed to 1 USD = 108.55 KES.   (2 marks)
                                                                  (Total: 20 marks)

QUESTION THREE

(a) Discuss three Trade Related Investment Measures (TRIMs) that distorted the smooth flow of international business and which are now prohibited by the General Agreement on Trade and Tariffs (GATTs).   (6 marks)

(b) Zulu Limited is a South African company that supplies tanned leather to Shoetec Ltd., a US based company. Zulu Limited has invoiced Shoetec Ltd. and is meant to receive 500,000 United States dollars (USD) in 180 days.

The following information, as quoted in the Johannesburg Stock Exchange (JSE) shows the indicative exchange rates and interest rates:

90 – day South African interest rate	7.75%
90 – day United States interest rate	9.25%
90 – day forward exchange rate of USD	ZAR 1.080
Spot rate of USD	ZAR 1.095

Note: ZAR is the South African Rand.

Required:
Determine the amount to be received by Zulu Limited using:

    (i)   Forward contract hedge.   (2 marks)

    (ii)   Money market hedge.   (4 marks)

(c) Advise Zulu Limited on the most appropriate hedge based on your calculations in (b) (i) and (ii) above.   (1 mark)

(d) The following data obtained from Penbreak Investments Ltd. relates to inflation and interest rates movement for two countries, Rwanda and Kenya, over the period between years 2013 and 2017:

Country	Exchange rate (KES/RWF)	Consumer Price Index (CPI)
Kenya	6.50 – 4.90	103.60 – 151.50
Rwanda		79.60 – 167.90

Required:

    (i)   If purchasing power parity (PPP) had held over this period, determine the KES/RWF exchange rate in year 2017.   (3 marks)

    (ii)   Interpret your result in (d) (i) above.   (1 mark)

(e) Discuss three services that international banks could provide to their customers.   (3 marks)
                                                                     (Total: 20 marks)

QUESTION FOUR

(a) (i) Distinguish between the terms "Greenfield investment" and "Brownfield investment" in relation to foreign direct investments (FDI's). (2 marks)

    (ii) Citing three reasons, justify why firms prefer acquisition compared to Greenfield investment when conducting international business. (3 marks)

(b) Flamingo Limited is an agro-based company incorporated in Kenya. The company intends to invest in a capital project which will be based in Cape Town, South Africa.

Additional information:

1. The project will commence on 1 January 2018 with the initial capital of 5 million South African Rands (ZAR) which will be used in acquiring agricultural machinery with an estimated useful life of 5 years. The straight line method of depreciation will be applied.

2. To enable the firm pay land rates and other working capital requirements, an additional 2.5 million ZAR will be required and it is expected that this amount will be recouped in full at the end of the project's useful life.

3. Annual sales revenue from the project are estimated as follows:

Year	Revenue (ZAR)	Fixed costs (ZAR)
2018	2,600,000	600,000
2019	3,500,000	780,000
2020	5,000,000	905,000
2021	4,200,000	880,000
2022	2,800,000	450,000

4. Variable operating costs are expected to be a 1/5 of the sales and are assumed to accrue evenly.

5. The exchange rates between the Kenya Shilling and the South Africa Rand are as follows:

	ZAR/KES
1 January 2018	8.00
31 December 2018	8.50
31 December 2019	9.00
31 December 2020	9.50
31 December 2021	10.00
31 December 2022	10.30

6. All the cash flows are expected to occur at the year end.

7. The cost of capital for both South Africa and Kenya is assumed to be 12% per annum.

8. Assume that the corporation tax rate in South Africa is 30% and no further taxation will be levied in Kenya.

Required:

(i) The net present value (NPV) of the project in KES. (8 marks)

(ii) Based on your results in (b) (i) above, advise Flamingo Limited. (1 mark)

(iii) Recommend the type of hedge that Flamingo Limited, being an agro-based company, could employ to cushion itself against the negative effects of weather. (1 mark)

(c) As an experienced investment and financial analyst, you have been consulted by Wesco International Investment Group (WIIG), a company based in the United States which is considering setting up a subsidiary in your country. The management of WIIG is concerned that your country is expecting to hold a general election at the end of this year.

Required:

(i) Advise WIIG on three political risks that the subsidiary might face in your country. (3 marks)

(ii) Suggest relevant mitigating factors that WIIG could adopt to address the risks identified in (c) (i) above. (2 marks)

(Total: 20 marks)

QUESTION FIVE

(a)　　In relation to the international tax environment:

　　(i)　　Describe three criteria for determining tax neutrality.　　(3 marks)

　　(ii)　　Examine three methods that the tax authority of your country might use to determine if transfer price is reasonable.　　(3 marks)

(b)　　(i)　　Assess three merits that would accrue to a multinational corporation (MNC) that has a centralised cash manager who handles all investment and borrowing for all affiliates of the MNC, versus each affiliate having a local manager who performs the cash management activities of the affiliate only.　　(3 marks)

　　(ii)　　The following information relates to interaffiliate cash flows:

Affiliate	Expected transactions (USD"000")	Standard deviation (USD"000")
Kenya	100	40
Uganda	150	60
Pakistan	175	30
China	200	70

Assume that the interaffiliate cash flows are uncorrelated with one another.

Required:
The standard deviation of the portfolio of cash held by the centralised depository.　　(2 marks)

(c)　　The Basel II accord sets out rules on core disclosure areas that should be met by banks and which must be enforced by bank supervisors.

In relation to the above statement, explain three disclosures mentioned in the Basel II accord of bank regulation.　　(3 marks)

(d)　　Today's global market presents a variety of ethical dilemmas for multinational corporations. This ethical decision-making process becomes particularly challenging when the ethical standards in the company's home country are higher than those in the subsidiary's markets.

Required:
In relation to the above statement, examine six unethical business practices that multinational corporation managers could engage in while conducting international business.　　(6 marks)
　　(Total: 20 marks)

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Present Value of 1 Received at the End of n Periods:

$$PVIF_{r,n} = 1/(1+r)^n = (1+r)^{-n}$$

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	8772	8696	.8621	.8475	.8333	.8065	.7813	.7576	7353
2	.9803	.9612	.9426	.9246	.9070	.8900	8734	.8573	.8417	.8264	.7972	7695	7561	.7432	.7182	.6944	.6504	.6104	5739	5407
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	.7722	.7513	.7118	6750	6575	.6407	.6086	.5787	.5245	.4768	4348	3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	5921	5718	.5523	.5158	.4823	.4230	.3725	3294	2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5674	5194	.4972	.4761	.4371	.4019	.3411	2910	2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	:1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	.0623	0462
11	8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	.1869	1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	3152	.2745	.2394	.1827	1401	.1229	.1079	0835	.0649	.0397	.0247	.0155	0099
16	8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	1069	.0930	.0708	.0541	.0320	.0193	.0118	0073
17	8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	0029
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	1486	1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	0021
25	.7798	.6095	.4776	.3751	.2953	.2330	.1842	1460	.1160	.0923	.0588	0378	.0304	.0245	0160	.0105	.0046	.0021	.0010	0005
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	0196	.0151	.0116	.0070	.0042	.0016	.0006	.0002	.0001
40	.6717	.4529	3066	.2083	.1420	.0972	.0668	.0460	.0318	.0221	.0107	0053	0037	.0026	.0013	.0007	.0002	.0001		
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0014	0009	.0006	.0003	.0001				
60	.5504	.3048	.1697	.0951	.0535	.0303	.0173	.0099	.0057	.0033	.0011	.0004	.0002	.0001						

* The factor is zero to four decimal places

Present Value of an Annuity of 1 Per Period for n Periods:

$$PVIF_{r,t} = \sum_{t=1}^{n} \frac{1}{(1+r)^t} = \frac{1 - \frac{1}{(1+r)^n}}{r}$$

Number of payments	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3.0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3.1129
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3.1242
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250
60	44.9550	34.7609	27.6756	22.6235	18.9293	16.1614	14.0392	12.3766	11.0480	9.9672	8.3240	7.1401	6.6651	6.2402	5.5553	4.9999	4.1667	3.5714	3.1250