2024

COMMERCE

Paper : DSE-406A

[International Finance (IF)]

Full Marks : 40

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Module - I

Answer ***any two*** questions.

1. A USA research journal publishes a list of Big Mac prices in various countries and compares the prices using the spot exchange rate quoted against US Dollars as the base currency, to see whether the price of a Big Mac is the same everywhere which is commonly referred as "Big Mac Index". The following table shows the prices of Big Macs in 5 foreign countries along with the U.S. Big Mac price, and the Price Ratio of the Big Mac price (in respective local currencies) converted into US Dollars to its actual US Dollar price :

Country	Big Mac Price	Price Ratio	Annual Inflation (%)
United States	USD 2.43	1.00	3.5
Malaysia	MYR 4.52	0.489	8.0
Singapore	SGD 3.20	0.761	2.0
Spain	PTA 375	0.996	5.5
Britain	GBP 1.90	1.259	4.0
Switzerland	CHF 5.90	1.641	1.5

(a) Calculate the spot exchange rate of Singapore and Switzerland, as well as the theoretical exchange rate of Malaysia and Britain. (Assumptions of the underlying parity theorem holds)

(b) Can you estimate the expected spot rate of Spain and Malaysia one-year hence?

(c) Under what set of assumptions the underlying parity theorem, based on which you computed the theoretical exchange rates, holds good?

(d) What should have been the ideal price ratio of Big Mac for Switzerland and Britain? Which theorem/theory/Law you relied upon to compute the ideal price ratio?

(e) Show that the inflation rate differential of Switzerland with USA is approximately equal to the expected percentage change in their exchange rates. 2+2+2+2+2

2. (a) Comment on the following statements :

(i) The forward rate is an unbiased estimator of the future spot rate.

(ii) All MNCs are subjected to economic exposure.

(iii) Indian exporters prefer US Dollars invoicing to adopt naked position in the forex market.

(iv) Apparently, currency forwards seem to be flexible, but currency futures even being standardised provides greater flexibility.

(v) The covered interest parity theorem, in contrast to the uncovered interest parity theorem, is a riskless arbitrage condition.

(vi) A nation having a higher inflation relative to another nation, shall be subjected to currency depreciation.

(vii) Currency Futures can be settled either at maturity or even before the maturity, but their settlement price differs.

(viii) Inspite of having zero exposure, speculators prefer to accept risk.

(b) Assume that the exchange rate is in equilibrium initially. Then the home country experiences a 4% inflation rate, while the foreign country experiences a 7% inflation rate. How will the exchange rate change according to the PPP theory? 8+2

3. (a) From the undermentioned spot exchange rates prevailing in a forex market, can you suggest a riskless strategy which might yield a gain for a forex market participant? Specify the strategy and explain the steps along with supporting workings.

Exchange Rates	**Two-way Quotes**
ZARUSD	0.054/6
ZARSAR	0.201/8
ZARAUD	0.073/7
ZARNZD	0.087/9
AUDNZD	1.073/9

(The ISO codes of South African Rand is ZAR, Saudi Riyal is SAR, Australian Dollar is AUD, New Zealand Dollar is NZD and United States Dollar is USD.)

You are allowed to borrow at most 2500 US Dollars, or 5000 Saudi Riyals, or 10,000 Australian Dollars or 12,500 New Zealand Dollars, whereas there is no limit for the local currency of Rand. Show gain (if any) in percentage terms.

(b) Assuming that there is no restriction in the movement of funds between Japan and United Kingdom, can a Japanese investor with borrowed funds of ¥200,000 under the given circumstances, take advantage of interest arbitrage? Does the interest advantage on Pound sterling deposits really work out in favour of the Japanese investor? Give your comments. Is there any opportunity for covered interest arbitrage? Explain your answer.

Spot Rate: ¥/£	200.60-201.25
3 months forward swap points	40/20
Interest rates on Japanese Yen Deposits	0.5 percent per annum
Interest rates on Pound Sterling Deposits	3.5 percent per annum
Japanese Bank Lending rate	1.5 percent per annum
UK Bank Lending rate	4.0 percent per annum

5+5

4. Discuss whether there is a need for a hedging strategy to be adopted by the undermentioned Indian companies.

(a) Kia India is a wholly owned subsidiary of a giant automotive South Korean company Kia Corporation headquartered at Jung, Seoul which assembles battery operated passenger electric vehicles manufactured in South Korean plants. The Indian subsidiary sources all its processed automotive major parts directly from its parent company, whereas for the spare parts and other ancillaries it uses locally made components. This subsidiary company generates operating revenues by selling its compact electric vehicles to Indian customers only and all its local factory expenses, assets and liabilities are denominated in Indian currency. Kia India prepares its annual report based on the requirements of the Indian corporate reporting laws.

(b) Woodricke Limited is the largest exporter of Indian Darjeeling Tea all over the world. It mostly exports to European union zone along with the United States market whereby the sales invoices are usually raised either in US Dollars or Euro, and at times in Pound Sterling too. Historically, Indian rupees has weakened relative to US Dollars, Euro and Pound Sterling but over the last few financial years the rate at which US Dollars has appreciated is more than that of the Euro and Pound Sterling. Woodricke does not have any payables denominated in foreign currencies.

(c) Sunshine Pharma is a pharmaceutical company operating from the state of Maharashtra, India. 75% of its produce is exported to European markets which directly competes with the local European pharma companies. Sunshine operates at a wafer-thin margin to face the cut-throat competition from the European companies. Currently, Sunshine has its entire receivables in Euro but is insisting its European drug distributors to make payments in Indian rupees henceforth.

(d) Delhi Metro Railway Corporation (DMRC) partly sources its current requirements for rakes from Integral Coach Factory (ICF) Chennai, a production unit under Ministry of Railways, and partly from CNR Dalian Locomotive and Rolling Stock company of China. DMRC has recently placed a huge order of 25 set of rakes to be imported from Dalian for this financial year with a contract value in Indian rupees. Earlier DMRC used to import from Bombardier of Canada against which there is an existing payable denominated in US Dollars as reflected in current year's financial statements.

(e) Wipro, an Information Technology company operating from the Silicon Valley of Bangalore city is providing IT enabled services to several Latin American countries including Brazil and Argentina. Its entire revenues generated from the Latin American market are invoiced in US Dollars but next year onwards its Brazilian and Argentine clients are insisting to make their payments in their respective local currencies of Real and Peso. There is no Futures contract lot available for Real and Peso in Indian derivative markets. 2+2+2+2+2

Module - II

Answer ***any two*** questions.

5. (a) Mention the name of the DTAA Models that are beneficial for developed nations, developing nations, under-developed nations and USA.

(b) What is meant by 'Base Erosion and Profit Shifting' (BEPS)?

(c) Y Ltd. furnishes the following information :

Income in the State of Residence	₹ 80,000
Income from sources abroad	₹ 20,000
	₹ 1,00,000

Progressive Tax rate @ 35% for income of ₹ 85,000 and above

Progressive Tax rate @ 30% for income below ₹ 85,000

Compute the Relief from Double Taxation for Y Ltd. as per the (i) Full Exemption Method, (ii) Exemption with Progression Method (iii) Full Credit Method and (iv) Ordinary Credit Method if the rate of tax in the Source State is (I) 20% or (II) 40%. 2+2+6

6. (a) Examine with reasons whether the two enterprises referred to in the situations given below can be deemed to be associated enterprises under the Indian transfer pricing regulations :

(i) Sky Ltd., a UK company having its place of effective management in the UK, has the power to appoint four of the directors of Ocean Ltd., an Indian company, whose total number of directors in the Board is nine.

(ii) Total value of raw materials and consumables of PQR Ltd., an Indian company, is ₹ 950 crores. Out of this, supplies to the tune of ₹ 880 crores are by ABC Inc, a German company having its place of effective management in Germany, at prices and terms decided by the German company.

(b) Earth Inc. having its business in France has advanced a loan of € 80,000 to Moon Ltd, of India. Book value of total assets of Moon Ltd. was ₹ 125 lakhs. Moon Ltd. provides software backup support to Earth Inc. Moon Ltd. has spent 25,000 man hours during the financial year 2023-24 for the services rendered to Earth Inc. The cost for Moon Ltd. is € 50/manhour. Moon Ltd. has billed Earth Inc. at € 61/manhour.

Jupiter Ltd. in India which has a similar business model, provides software backup support to Mars Inc. in Paris, France. Jupiter Ltd.'s cost and operating profits are as hereunder :

Particulars	₹ in Lakhs
Direct costs	300
Indirect costs	100
Operating profits	100

(i) Calculate Arm's Length Price for the transaction between Moon Ltd. and Earth Inc. based on the above data of Jupiter Ltd. using the Transactional Net Margin Method. Assume 1 € = ₹ 90.

(ii) Explain, if there is any adjustment to be made to the total income of Moon Ltd. (2+2)+6

7. (a) Briefly explain the concept of Foreign Currency Convertible Bonds (FCCBs). Mention any two advantages of raising funds through FCCBs.

(b) Distinguish between ADR and GDR.

(c) Nothing Ltd., the UK based company is looking to raise US$ 100 million for the next five years. Wells Fargo Bank and JP Morgan Chase have come up with competing bids for the mandate to syndicate a US$ 100 million Eurodollar loan for Nothing Ltd. with the following proposals :

	Wells Fargo Bank	**JP Morgan Chase**
Principal	$100 million	$100 million
Maturity	5 years	5 years
Reset Period	Every six months	Every six months
Interest rate	LIBOR + 0.20%	LIBOR + 0.35%
Syndication fee	1.250%	0.75%

Assuming that six-month LIBOR is currently at 5.5%, what is the effective annual interest cost to Nothing Ltd. for each loan? Which of these two loans would you select on the basis of cost, all else being equal? (2+2)+2+(3+1)

8. (a) Worldwide Inc. is proposing to construct a new plant in Europe. Two prime candidates are Germany and England. The forecasted cash flows for the next six years from the proposed plants are as follows :

Details	**C0**	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	**IRR(%)**
Germany (EUR in millions)	(60)	10	15	15	20	20	20	18.8
England (GBP in million)	(120)	20	30	30	35	35	35	12.8

The spot exchange rate of EURUSD 1.3. The spot exchange rate of USDGBP 0.75. The US interest rate is 5%, interest rate of England is 4% and interest rate of euro countries is 6%. The financial manager has suggested that if the cash flows were stated in USD, a return in excess of 10% would be acceptable. Should the company go ahead with either of the project? If it at all, must choose between them, which should it consider?

(b) Discuss any two additional factors that deserve consideration in a foreign project analysis but are not relevant for a purely domestic project.

(c) Write a short note on 'Masala Bond'. (3+3)+2+2