

2023

## COMMERCE

Paper : DSE-406A

(International Finance)

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. The Table below represents some hypothetical forex rates of some currencies quoted against each unit of Indian Rupees. You are required to analyse the information given in the table to answer the following :

Currencies	Spot Rate		Swap Points		
	Buying	Selling	1-month	3-month	6-month
Philippine Peso (PHP)	0.665	0.683	12/19	22/30	40/60
Argentine Peso (ARS)	3.000	3.015	30/40	50/70	80/90
Mexican Peso (MXN)	0.213	0.227	6/3	15/10	25/17

- Compute the expected 1-month forward rate between ARS and PHP and state whether ARS is expected to be at a discount against PHP.
- Find out the spread of Mexican Peso based on the Spot Rate and 6-month expected rate and comment on the nature of the spread.
- Compute the expected exchange rate between Mexican Peso and Philippine Peso 3-month hence.
- Can you identify whether INR shall be at a discount against Mexican Peso, 3-months hence? Compute the annualised forward discount or premium in percentage.
- An Indian International business entity having foreign transactions of import and export with both Argentina and Mexico and having both payables and receivables denominated in Indian Rupees is worried about the outcome of his probable incomes and expenses for each of his international transactions. He is of the opinion that he should have raised the invoices and bills in US Dollars instead of Indian Rupees to prevent from possible losses. Can you offer any better advice to him regarding this?

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Please Turn Over

2. Based on the information provided below, can you work out a strategy to earn a risk-free profit. Also explain your strategy and interpret your solution.

Spot Rate	JPY/GBP: 175.52-177.65
	INR/GBP: 103.82-105.55
3-month swap points (expected)	JPY/GBP: 22/15
	INR/GBP: 15/40
Japanese Interest Rates	1.25%-2.25% p.a.
UK Interest Rates	4.00%-4.50% p. a.
Indian Interest Rates	5.00%-7.50% p.a.

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3. The following table depicts the prices of the National Basket of same goods and services, as well as MacDonald’s Big MacBurger price, being considered in some selective countries for the purpose of analysing the purchasing power parity (PPP) theorem. Based on the information provided, you are required to fill up the blank cells of the below mentioned table using the assumptions of PPP theorem and the Law of One Price. Changes in the price level of the National Basket of Goods and services are attributable to the Consumer Price Index (CPI) indicator of the respective countries.

Selected Countries	ISO codes of local currencies of the selected countries	Price (in millions) of the National Basket		Big Mac D Burger Price in respective selective countries		Exchange Rates of selective countries (Per unit of US Dollars)				Under (-) / Over Valuation (+) of the local currency of the respective country against US Dollars expressed in %	
		In respective local currency		In terms of local currency	In terms of US Dollars	Actual Spot Rate	Actual Spot Rate	PPP Rate (Absolute version)	PPP Rate (Relative Version)		
		2022	2023	2022	2022	2022	2023	2022	2023	2022	2023
Australia	AUD		2.915	5			1.35		1.22	-12	
Brazil	BRL	14.7	16.05		12	5.00		5.88		17.60	2.723
Egypt	EGP	101.25		520		32.50	31.4	40.5	33.704		
Turkey	TRY	68.75	83.875	240	10.526		23.68			20.614	8.763

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4. Sydney based Australian construction company CPB contractors has placed an order for procurement of high-grade Type 440 (with more carbon) 3 million Metric tonnes of Steel from a leading Indian Steel Manufacturing Company Bharat Ratan Steel Limited on 15th June 2023. The order value is invoiced as 300,000 US Dollars. The Spot rate on the date of invoice stood as follows :

INR/USD : 83.5

AUD/USD : 1.51

The date of expected settlement is 3 months hence. The forex markets experts are of the opinion that Australian Dollar may appreciate by 3 percent whereas the Indian Rupee may depreciate by 5 percent during this period against the US Dollar. What positions should CPB Contractors and Bharat Ratan Steel should take to minimise their risk arising from exchange rate fluctuations? Give reasons in support of your answer.

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### Module - II

Answer *any two* questions.

5. (a) Should the additional economic and political risks that are uniquely foreign be reflected in cash flows or discount rate adjustments?
- (b) XYZ Ltd., a US firm is proposing to construct a new plant in Australia. The forecasted cash flows from the proposed plant are as follows :

Details	C0	C1	C2	C3	C4	C5	C6
Cash Flows (MILLIONS AUD)	-120	20	40	40	35	45	55

The spot exchange rate of USD AUD is 1.8. The risk free Interest rates of the USA is 5% and that of Australia is 4%. Being a finance manager of this company you are required to suggest to the management whether it should accept or reject the proposal.

4+6

6. (a) 'There are certain practical difficulties in applying Arm's Length Principles.' –Briefly discuss about three of such difficulties.
- (b) Point out any two advantages of 'Safe Harbour Rules'.
- (c) ABC Ltd., Mumbai is engaged in trading of electronic goods. It purchased goods from its associated enterprise XYZ Ltd., Singapore, and also from unrelated party, O Ltd., UK. For the F.Y. 2022-23, the gross profit margin was 15% on the sale of goods of XYZ Ltd., whereas it was 20% in the case of O Ltd. After-sales warranty of 6 months was provided by XYZ Ltd. whereas O Ltd. gave after-sales warranty of 1 year. The cost of warranty may be taken as 2% of the sale price. The XYZ Ltd.'s brand value is internationally known and the benefit of the brand value can be taken as 1% of sale price. During the F.Y. 2022-23, it sold goods of XYZ Ltd. for ₹ 40 crores and of Oceania Ltd. for ₹ 30 crores. As regards transport cost of the goods purchased, there was no difference between related and unrelated party. Compute the ALP of the transaction between ABC Ltd. and XYZ Ltd., Singapore by applying the Resale Price Method, considering the facts of the case.
- 3+2+5
7. (a) B Ltd. a Swedish company has arranged a €500 million, five-year, euro-denominated Eurocurrency (Euroeuro) loan with a syndicate of banks led by Deutsche Bank with an up-front syndication fee of 2.0%. The interest rate is set at LIBOR+1.25% with LIBOR reset every six months. Assuming an initial LIBOR of 7.5%, what will be the effective annual interest rate for B Ltd.?
- (b) S Ltd. is interested in expanding its operation and planning to install manufacturing plant at Japan. For the proposed project it requires a fund of ¥ 10 million (net of issue expenses / floatation cost). The estimated floatation cost is 2%. To finance this project it proposes to issue GDR.

**Please Turn Over**

You as financial consultant are required to compute the number of GDRs to be issued and cost of the GDR with the help of following additional information.

- (i) Expected market price of share at the time of issue of GDR is ₹ 250 (Face Value ₹ 100)
  - (ii) 2 Shares shall underly each GDR and shall be priced at 10% discount to market price.
  - (iii) Expected exchange rate ₹ 2/¥.
  - (iv) Dividend expected to be paid is 20% with growth rate of 12%.
- (c) "In general Eurocurrency spread are narrower than in domestic money markets." What are the reasons for lower lending rates and higher deposit rates in Eurocurrency market? 2+3+5

8. (a) Sun Pharma Ltd. an Indian-based MNC, is evaluating an overseas investment proposal. Its exports of pharmaceutical products have increased to such an extent that it is considering a project to build a plant in US. The project will entail an initial outlay of \$ 200 million and is expected to generate the following cash flows over it's four-year life.

Year	Cash Flows (in \$ in million)
1	60
2	80
3	100
4	120

The current exchange rate is ₹ 81 per US \$, the risk-free rate in India is 11% and the risk-free rate in US is 6%. Sun Pharma's required rupee return on a project of this kind is 15%. Should Sun Pharma undertake the project? Justify your answer with the help of :

- (i) Home Currency approach and
  - (ii) Foreign Currency approach.
- (b) Explain the concept of 'Cannibalization' with an example. How the 'Cannibalization' differs from 'Sales creation'. 6+4