Section A – This ONE question is compulsory and MUST be attempted

1 Lirio Co is an engineering company which is involved in projects around the world. It has been growing steadily for several years and has maintained a stable dividend growth policy for a number of years now. The board of directors (BoD) is considering bidding for a large project which requires a substantial investment of $40 million. It can be assumed that the date today is 1 March 2016.

The BoD is proposing that Lirio Co should not raise the finance for the project through additional debt or equity. Instead, it proposes that the required finance is obtained from a combination of funds received from the sale of its equity investment in a European company and from cash flows generated from its normal business activity in the coming two years. As a result, Lirio Co's current capital structure of 80 million $1 equity shares and $70 million 5% bonds is not expected to change in the foreseeable future.

The BoD has asked the company's treasury department to prepare a discussion paper on the implications of this proposal. The following information on Lirio Co has been provided to assist in the preparation of the discussion paper.

Expected income and cash flow commitments prior to undertaking the large project for the year to the end of February 2017

Lirio Co's sales revenue is forecast to grow by 8% next year from its current level of $300 million, and the operating profit margin on this is expected to be 15%. It is expected that Lirio Co will have the following capital investment requirements for the coming year, before the impact of the large project is considered:

1. A $0·10 investment in working capital for every $1 increase in sales revenue;
2. An investment equivalent to the amount of depreciation to keep its non-current asset base at the present productive capacity. The current depreciation charge already included in the operating profit margin is 25% of the non-current assets of $50 million;
3. A $0·20 investment in additional non-current assets for every $1 increase in sales revenue;
4. $8 million additional investment in other small projects.

In addition to the above sales revenue and profits, Lirio Co has one overseas subsidiary – Pontac Co, from which it receives dividends of 80% on profits. Pontac Co produces a specialist tool which it sells locally for $60 each. It is expected that it will produce and sell 400,000 units of this specialist tool next year. Each tool will incur variable costs of $36 per unit and total annual fixed costs of $4 million to produce and sell.

Lirio Co pays corporation tax at 25% and Pontac Co pays corporation tax at 20%. In addition to this, a withholding tax of 8% is deducted from any dividends remitted from Pontac Co. A bi-lateral tax treaty exists between the countries where Lirio Co is based and where Pontac Co is based. Therefore corporation tax is payable on profits made by subsidiary companies, but full credit is given for corporation tax already paid.

It can be assumed that receipts from Pontac Co are in $ equivalent amounts and exchange rate fluctuations on these can be ignored.

Sale of equity investment in the European country

It is expected that Lirio Co will receive Euro (€) 20 million in three months' time from the sale of its investment. The € has continued to remain weak, while the $ has continued to remain strong through 2015 and the start of 2016. The financial press has also reported that there may be a permanent shift in the €/$ exchange rate, with firms facing economic exposure. Lirio Co has decided to hedge the € receipt using one of currency forward contracts, currency futures contracts or currency options contracts.

The following exchange contracts and rates are available to Lirio Co.

	Per €1
Spot rates	$1·1585–$1·1618
Three-month forward rates	$1·1559–$1·1601

Currency futures (contract size $125,000, quotation: € per $1)

March futures	€0·8638
June futures	€0·8656

Currency options (contract size $125,000, exercise price quotation € per $1, premium € per $1)

	Calls		Puts	
Exercise price	March	June	March	June
0·8600	0·0255	0·0290	0·0267	0·0319

It can be assumed that futures and options contracts expire at the end of their respective months.

Dividend history, expected dividends and cost of capital, Lirio Co

Year to end of February	2013	2014	2015	2016
Number of $1 equity shares in issue (000)	60,000	60,000	80,000	80,000
Total dividends paid ($ 000)	12,832	13,602	19,224	20,377

It is expected that dividends will grow at the historic rate, if the large project is not undertaken.

Expected dividends and dividend growth rates if the large project is undertaken

Year to end of February 2017	Remaining cash flows after the investment in the $40 million project will be paid as dividends.
Year to end of February 2018	The dividends paid will be the same amount as the previous year.
Year to end of February 2019	Dividends paid will be $0·31 per share.
In future years from February 2019	Dividends will grow at an annual rate of 7%.

Lirio Co's cost of equity capital is estimated to be 12%.

Required:

(a) With reference to purchasing power parity, explain how exchange rate fluctuations may lead to economic exposure. (6 marks)

(b) Prepare a discussion paper, including all relevant calculations, for the board of directors (BoD) of Lirio Co which:

(i) Estimates Lirio Co's dividend capacity as at 28 February 2017, prior to investing in the large project; (9 marks)

(ii) Advises Lirio Co on, and recommends, an appropriate hedging strategy for the Euro (€) receipt it is due to receive in three months' time from the sale of the equity investment; (14 marks)

(iii) Using the information on dividends provided in the question, and from (b) (i) and (b) (ii) above, assesses whether or not the project would add value to Lirio Co; (8 marks)

(iv) Discusses the issues of proposed methods of financing the project which need to be considered further. (9 marks)

Professional marks will be awarded in part (b) for the format, structure and presentation of the discussion paper. (4 marks)

(50 marks)