GXG Co is an e-business which designs and sells computer applications (apps) for mobile phones. The company needs to raise $3,200,000 for research and development and is considering three financing options.

Option 1

GXG Co could suspend dividends for two years, and then pay dividends of 25 cents per share from the end of the third year, increasing dividends annually by 4% per year in subsequent years. Dividends in recent years have grown by 3% per year.

Option 2

GXG Co could seek a stock market listing, raising $3·2 million after issue costs of $100,000 by issuing new shares to new shareholders at a price of $2·50 per share.

Option 3

GXG Co could issue $3,200,000 of bonds paying annual interest of 6%, redeemable after ten years at par.

Recent financial information relating to GXG Co is as follows:

	$'000
Operating profit	3,450
Interest	200

Profit before taxation	3,250
Taxation	650

Profit after taxation	2,600
Dividends	1,600

	$'000
Ordinary shares (nominal value 50 cents)	5,000

Under options 2 and 3, the funds invested would earn a before-tax return of 18% per year.

The profit tax rate paid by the company is 20% per year.

GXG Co has a cost of equity of 9% per year, which is expected to remain constant.

Required:

Using the dividend valuation model, calculate the value of GXG Co under option 1, and advise whether option 1 will be acceptable to shareholders. (6 marks)

Examiners Report

The requirement here was for candidates to use the dividend valuation model to calculate the value of a proposed change in dividend policy, advising on its acceptability to shareholders. Candidates tended to struggle with this question, although some scored full marks.

The dividend valuation model allows us to calculate the value of an ordinary share or a company as the present value of its future dividends. If the future dividends are connected by a constant growth rate, we have the dividend growth model (DGM). In this question, the proposal was to suspend dividends for two years, before paying higher dividends at a higher growth rate than the current one from the third year onwards.

The DGM could be used to calculate a share price (the present value of future dividends from the third year onwards) at the end of the second year. This share price could then be discounted for two years to give a current share price. Some candidates adopted a different, but equally valid, approach of discounting the year 3 dividend to the end of year 1 or to year 0, and then applying the DGM.

How then would we know if the proposal was acceptable? By comparing the share price for the proposal to the current share price, calculated using the current dividend, the current dividend growth rate and the DGM.

General comments about whether shareholders would accept a two-year dividend suspensions, for example from the perspective of dividend relevance or irrelevance theory, were give some credit in the marking process. However, the expectation was that the comment on acceptability would refer to the comparison of the values discussed above.