QUESTION: 1

This scenario relates to five requirements.

Melplash Co manufactures motorcycles and is considering an investment in a new, high-performance model. The market for high-performance motorcycles is very competitive and Melplash Co's directors want to recover the costs of investment in the model quickly, before it is made obsolete by more advanced models at the end of four years. The directors also wish to show shareholders that the investment will be profitable.

The directors have therefore set a target payback period of two years and a target return on capital employed of 20% for the investment.

The directors have also asked the finance director to provide net present value (NPV) and internal rate of return (IRR) calculations for the investment. They plan to consider the results of these calculations if the investment fulfils the targets for payback and return on capital employed.

Melplash Co has prepared the following forecast of production and sales of the new model:

Year	**1**	**2**	**3**	**4**
Motorcycles	25,000	45,000	40,000	20,000

Melplash Co's finance director has prepared the following information relating to the investment proposal:

Initial investment	$220m
Residual value at the end of four years	$30m
Selling price (year 1 price terms)	$20,000 per motorcycle
Expected selling price inflation	6% per year
Variable costs (year 1 price terms)	$14,000 per motorcycle
Expected variable cost inflation	6% per year
Incremental fixed costs (year 1 price terms)	$120m per year
Expected fixed cost inflation	10% per year
Nominal (money) discount rate	14%

Ignore taxation.

(a) For the proposed investment in the new motorcycle, calculate the following:

(i) Net present value;

(5 marks)

(ii) Internal rate of return;

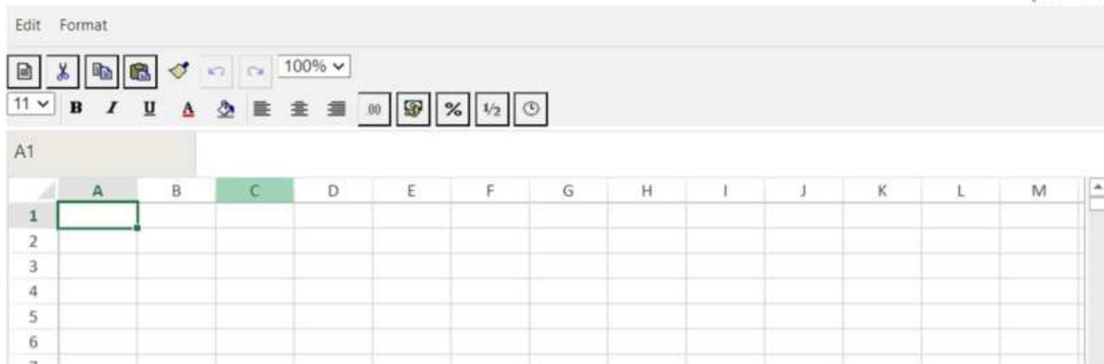
(2 marks)

(iii) Payback period; and

(1 mark)

(iv) Return on capital employed (accounting rate of return) based on average investment.

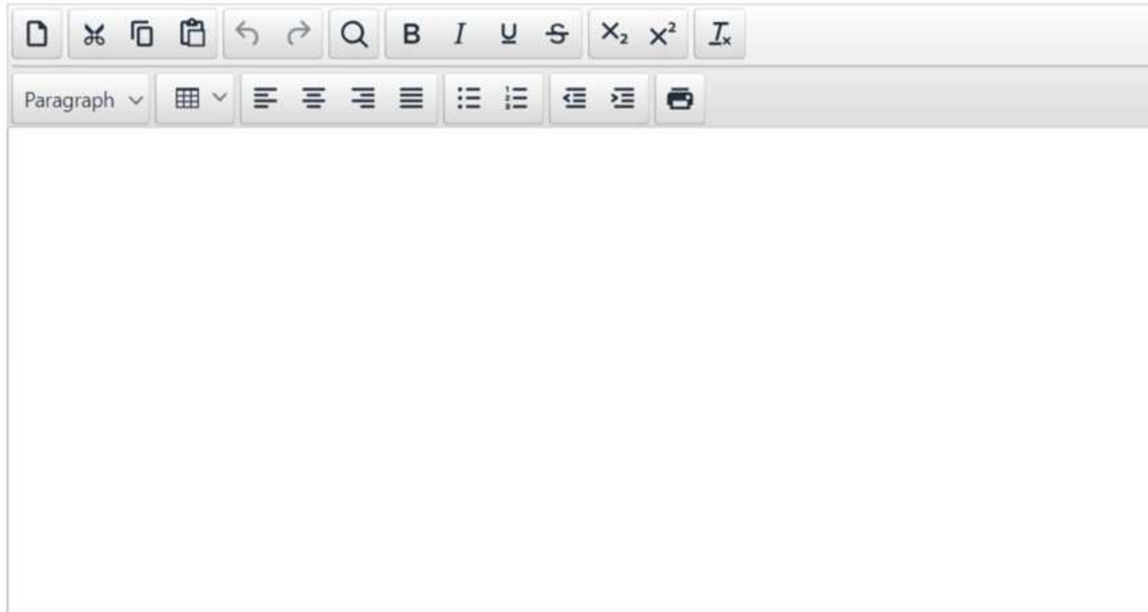
(3 marks)



(b) Discuss the suitability of the techniques used in (a) for determining whether to undertake an investment and advise whether Melplash Co's proposed investment is financially acceptable.

(9 marks)

(20 marks)



QUESTION : 2

This scenario relates to three requirements.

Tanza Co currently has the following sources of finance at 31 December 20X6. The capital structure and its nominal values have not changed for many years:

	Nominal value $m
Ordinary shares	50
6% convertible loan notes	150
4% bank loan	120

The ordinary shares are currently trading at $5.55 per share and have a nominal value of $0.50 per share. An ordinary dividend of $0.85 per share has recently been paid. The directors have indicated that a dividend of $0.90 will be paid on 31 December 20X7. Tanza Co's dividends and share price have grown steadily at 6% per year for several years and are expected to continue to do so.

Each loan note has a nominal value of $100 and is currently trading at $108.51. On 31 December 20X9, the investors holding the convertible loan notes may convert the loan notes into 20 ordinary shares. If they choose not to do so, the loan notes will be redeemed at nominal value on 31 December 20X9.

Tanza Co pays corporation tax at a rate of 15%.

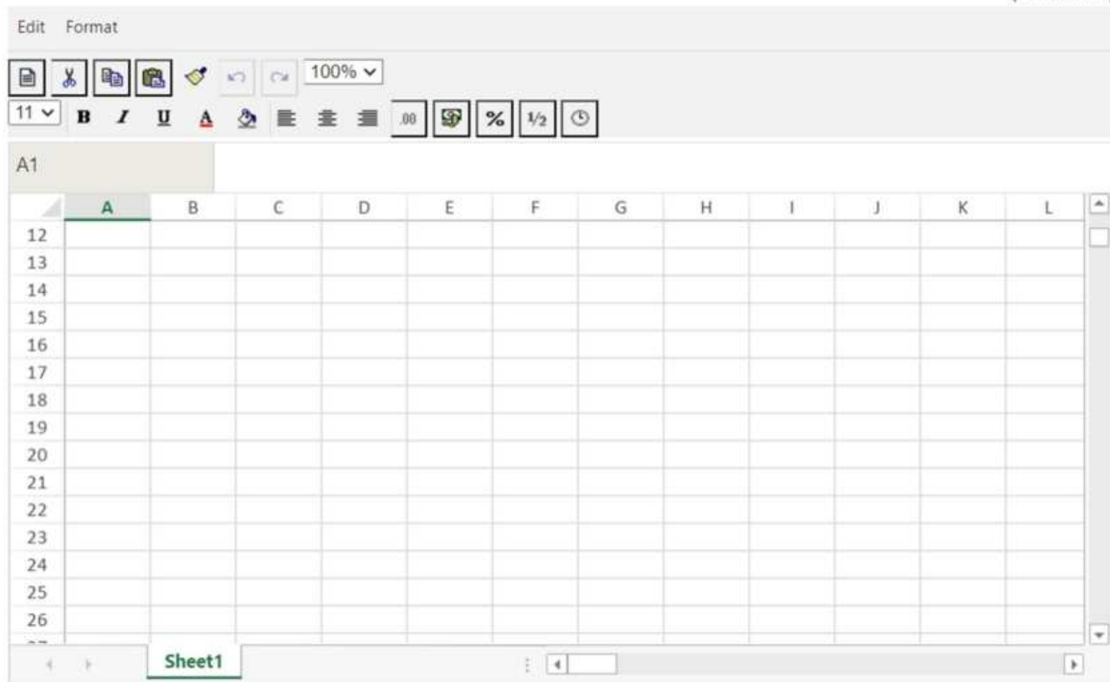
Tanza Co needs to raise a further $200m of long-term finance and the directors have been discussing whether this should be borrowed (debt) or raised by issuing new share capital (equity). The finance is needed quickly for a new project.

During the discussion, Director A proposed the use of debt. She had heard that at high levels of gearing the company can make cost savings which improve the weighted average cost of capital.

Director B has pointed out that Tanza Co's capital gearing is amongst the lowest in the industry. 'Our competitors generally have higher gearing than we do and also have lower weighted average costs of capital (WACCs) than us. Although I do think when gearing gets high the WACC goes up again.'

(a) Calculate the after-tax weighted average cost of capital for Tanza Co, at 31 December 20X6, on a market value basis.

(10 marks)



(b)(i) Critically discuss, with reference to the relevant theory, the views of Director A and Director B on raising new finance.

(6 marks)

(ii) Discuss TWO other factors for Tanza Co to consider in making the decision to raise debt finance or equity finance.

(4 marks)

(20 marks)

Paragraph

(i)

(ii)

1	
2	