

QUESTION 1

(a) An investor anticipates Newco's Security will reach GH¢30 by the end of one year. Newco's beta is 1.3. Assume the return on the market is expected to be 16% and risk-free rate is 4%. Calculate the expected return of Newco's share in one year and determine whether the share is undervalued, overvalued or properly valued with a current value of GH¢25.

(10 marks)

(b) Big Brother has a debt-equity ratio of 0.75:1. The cost of debt is 8% and the unlevered cost of capital is 13%. You are required to compute the cost of equity if the tax rate is 25%. **(4 marks)**

(c) The Winter Wear Company has expected profit before interest and taxes (PBIT) of GH¢2,100, an unlevered cost of capital of 14% and a tax rate of 25%. The company also has debt that carries a 7% coupon. The YTM is also 7%. You are required to compute the value of this company

(6 marks)

(Total: 20 marks)

QUESTION 2

(a) Raph Ltd has a 12% opportunity cost of funds and currently sells on terms of net 10 EOM (end-of-month). The firm has sales of GH¢10,000,000 a year, which are 80% on credit and spread evenly over the year.

Currently, the average collection period is sixty (60) days. If Chick offered terms of 2/10, net 30, 60% of its customers would take the discount, and the collection period would be reduced to forty (40) days.

Should Chick change its terms from net/10 EOM to 2/10, net 30?

(14 marks)

(b) Many firms that find themselves with temporary surplus cash invest these funds in treasury bills. Since Treasury bills frequently have the lowest yield of any investment security, why are they chosen as investments?

(3 marks)

(c) Who are the market participants in the foreign exchange market?

(3 marks)

(Total: 20 marks)

QUESTION 3

(a) Maxy Ltd is contemplating the acquisition of Bafscs Incorporated. The values of the two companies as separate entities are ₵30million and ₵10million respectively. Maxy estimates that by combining the two companies, it will reduce marketing and administration costs by ₵700,000 per year in perpetuity. Maxy can either pay ₵15million cash for Bafscs Incorporated or offer Bafscs a 50% holding in Maxy. The opportunity cost of capital is 10%.

(i) What is the gain from merger? **(2 marks)**

(ii) What is the cost of the cash offer? **(2 marks)**

(iii) What is the cost of the stock alternative? **(2 marks)**

(iv) What is the NPV of the acquisition under the cash offer? **(2 marks)**

(v) What is its NPV under the stock offer? **(2 marks)**

(Total: 10 marks)

(b) The Chief Operating Officer of your company has just been briefed by a consultant who claims that your company's share is overvalued.

The Consultant made use of the data below:

Year	Total Dividends GH₵000	No. of shares 000	Total earnings GH₵000
1	5,680	28,600	18,260
2	6,134	28,600	21,320
3	8,108	35,000	26,710
4	10,007	40,000	28,620

Your company's current share price is GH₵6.45 and the cost of equity is estimated to be 12.5%

Required:

With relevant calculations, determine whether your company's share price is overvalued.

(10 marks)

QUESTION 4

(a) The following information is available for 3 different stocks:

State of Economy	Probability of State of Economy	Rate of Return if State Occurs		
		Stock A (%)	Stock B (%)	Stock C (%)
Boom	0.35	20	35	60
Normal	0.40	15	12	5
Bust	0.25	1	-25	-50

(i) If your portfolio invested 40 percent each in A and B, and 20% in C, what is the portfolio expected return?

(8 marks)

(ii) If the expected Treasury Bill rate is 3.8%, what is the expected risk premium on the portfolio?

(2 marks)

(b) XYZ Ltd is financed by a mixture of equity and debt capital whose market values are in the ratio of 3:2 respectively.

The debt which is considered risk free yields 8% pre-tax. The average return on the market portfolio is 14% and the beta value of the company's equity is 0.85. Corporate Tax rate is 25%.

Required:

Calculate the appropriate cost of capital to be used for appraising new projects with the same operating risk characteristics.

(10 marks)

(Total: 20 marks)

QUESTION 5

(a) Distinguish between Call Option and Put Option (4 marks)

(b) You have won lottery and the following prizes have been proposed to you;

(i) GH¢60million now

(ii) GH¢12million a year for 10 years

(iii) GH¢10million per annum forever

(iv) GH¢150million at the end of 10 years.
Interest rate is 10% and will remain same.

Required:

Which option will you choose? (8 marks)

(c) Your company has won a GOG Contract to construct affordable housing units. However, there has been a delay in the release of the advance mobilization funds to begin the project. The Managing Director is contemplating sourcing bank overdraft to begin the project. As a Finance Manager of the company, outline to him three (3) advantages and disadvantages associated with Bank Overdraft.

(8 marks)

(Total: 20 marks)