

Applied Skills

Financial Management

Mock Exam 2 – Questions

Time allowed: 3 hours

This examination is divided into three sections:

Section A

- 15 objective test (OT) questions, each worth 2 marks
- 30 marks in total

Section B

- Three OT cases, containing a scenario which relates to five OT questions, each worth 2 marks
- 30 marks in total

Section C

- Two constructed response questions, each containing a scenario which relates to one or more requirement(s)
- Each constructed response question is worth 20 marks in total
- 40 marks in total

Formulae Sheet, Present Value and Annuity Tables are on pages 13–15.

FEM MOCK 2

Section A

This section of the exam contains **15 objective test (OT) questions**.

Each question is worth **2 marks** and is compulsory.

This exam section is worth **30 marks** in total.

- 1** A company whose home currency is the dollar (\$) expects to pay 500,000 pesos in six months' time to a supplier in a foreign country. The following interest rates and exchange rates are available to the company:

Spot rate	15.00 pesos per \$
Six-month forward rate	15.30 pesos per \$

	<i>Dollar (\$)</i>	<i>Peso</i>
Borrowing interest rate	4% per year	8% per year
Deposit interest rate	3% per year	6% per year

What is the cost, in six months' time, of the expected payment using a money-market hedge (to the nearest \$100)?

- \$31,800
 \$32,500
 \$33,000
 \$33,700
- 2 Identify, by clicking on the relevant box, whether each of the following statements concerning capital market efficiency is true or false.**

The existence of projects with positive expected net present values supports the idea that the stock market is strong-form efficient.	TRUE	FALSE
The existence of information content in dividend announcements supports the idea that the stock market is strong-form efficient.	TRUE	FALSE

- 3 Which TWO of the following statements are correct?**

- Securitisation is the conversion of illiquid assets into marketable securities
 The "yield gap" refers to equity yields being higher than government bond yields
 Intermediation arises where borrowers deal directly with lenders
 Money market instruments are always issued at a discount to nominal value

- 4** Peak Co's statement of profit or loss contains the following:

	\$m
Gross profit	50
Operating profit	30
Interest expense	6
Taxation expense	8

The nominal value of Peak Co's ordinary shares is \$1 per share and their market price is \$8 per share. The issued share capital is 10 million shares.

What is Peak Co's price/earnings ratio?

- 0.5
 2.67
 3.33
 5

- 5 Match each of the following government actions to monetary policy or fiscal policy.

Government action
Borrowing money from the capital markets and spending it on public works
Decreasing interest rates in order to stimulate consumer spending
Reducing taxation while maintaining public spending
Using official foreign currency reserves to buy the domestic currency

Monetary policy	Fiscal policy

- 6 Keswick Co has recently paid a dividend of \$2.98 per share. The dividend expected next year is \$3.07 per share and will grow at 2.33% per year thereafter. The company's cost of equity is 10%.

What is Keswick Co's ex-dividend market price per share?

- \$40.96
 - \$39.76
 - \$40.03
 - \$43.85
- 7 A new delivery vehicle costing \$40,000 can be purchased to replace the existing delivery vehicle, which cost the company \$30,000 and has accumulated depreciation of \$20,000. An employee has offered to buy the old delivery vehicle for \$12,000.

Which TWO of the following are relevant costs for deciding whether to replace the delivery vehicle?

- Purchase price of new vehicle
- Disposal value of old vehicle
- Gain on sale of old vehicle
- Purchase price of old vehicle
- Accumulated depreciation of old vehicle

- 8 **Which of the following are examples of money market instruments?**

- (1) Convertible loan notes
- (2) Bills of exchange
- (3) Commercial paper
- (4) Treasury bills

- 1 only
- 1 and 3
- 2 and 4 only
- 2, 3 and 4

- 9 A company has in issue 10% \$100 nominal value irredeemable loan notes. The company's before-tax cost of debt is 11% per year and the corporation tax rate is 40%.

What is the ex-interest market value of each loan note (to two decimal places)?

\$

- 10 **Which of the following is an example of an "aggressive" working capital funding policy?**

Select	▼
Increasing the current and quick ratios	
Using long-term debt to finance short-term assets	
Using trade payables to finance buffer inventory	
Financing property purchases with long-term debt	

- 11 Portrush Co's capital structure is as follows.

	\$m
Ordinary shares (nominal value \$1 per share)	15
Reserves	8
12% irredeemable loan notes (nominal value \$100 per loan note)	6
	—
	29
	—

The current market prices for the company's securities are as follows:

Ordinary shares	\$1.60 per share
12% irredeemable loan notes	\$100 per loan note

The company pays corporation tax at the rate of 30%. The cost of equity has been estimated at 16%.

What is the company's market value weighted average cost of capital (to the nearest decimal point)?

- 13.8%
 14.5%
 14.9%
 15.2%

- 12 **Identify, by clicking on the relevant box, the effect of the following situations on the inventory order size associated with the Economic Order Quantity model.**

Order costs increase	INCREASE	DECREASE	NOT AFFECTED
Storage costs increase	INCREASE	DECREASE	NOT AFFECTED
Insurance costs decrease	INCREASE	DECREASE	NOT AFFECTED
Lead time increase	INCREASE	DECREASE	NOT AFFECTED

13 Use the following tokens to complete the following description of the effect on the weighted average cost of capital (WACC) if tax rates decrease.

The WACC will because the cost of will .

TOKENS

decrease

debt

decrease

increase

equity

increase

14 Derwent Co has in issue 50 million ordinary shares with a current market price of \$1.05 per share. The company is planning to raise \$10m via a rights issue with a subscription price of \$0.80 per share. The funds will be used to finance a project with a net present value of \$2.5m and the project will be announced at the same time as the rights issue.

What is Derwent Co's theoretical market price per share following the rights issue, assuming that the market is semi-strong efficient?

- \$0.88
- \$1.00
- \$1.04
- \$1.30

15 Which of the following risks exists in an all-equity financed company?

- Financial risk
- Business risk
- Credit risk
- Interest rate risk

Section B

This section of the exam contains **three OT cases**.
Each OT case contains a scenario which relates to **five OT questions**.
Each question is worth **2 marks** and is compulsory.
This exam section is worth **30 marks** in total.

The following scenario relates to questions 16–20.

YNM Co, a listed company, has been experiencing trading difficulties due to a continuing depressed level of economic activity. It currently needs to raise finance of \$50m to support its existing operations and is considering a placing of shares at the current market price of \$4.17 per share.

Statement of financial position information as at 31 March 20X6

	\$m
Ordinary shares (\$0.50 nominal)	19.0
Retained earnings	88.5
	<hr/>
Total equity	107.5
8% loan notes	50.0
	<hr/>
Total equity and non-current liabilities	157.5
	<hr/>

The current market price of each 8% loan note is \$88 per \$100 nominal value. It may be assumed that the placement will not affect the market price per share or the market price of the loan notes.

16 What percentage of shares will YNM Co's existing shareholders own following the placing?

Select... ▼
100%
61%
76%
68%

17 Which of the following statements regarding a placing of shares is correct?

- (1) The new shares carry full voting rights
 - (2) The new shares are issued to the general public
 - (3) A share prospectus must be prepared
- 2 and 3 only
 - 1 and 3 only
 - 3 only
 - 1 only

18 What will be YNM Co's debt/equity ratio (market value basis) following the placing?

- 21%
- 24%
- 31%
- 47%

19 YNM Co's loan notes will need to be refinanced after two years and the finance director has been researching interest rate theory in preparation for this event.

Identify, by clicking on the relevant box in the table below, whether each of the following statements is correct or incorrect.

Governments can keep interest rates low by buying short-dated government bills in the money market	CORRECT	INCORRECT
The "inverse" yield curve slopes upward to reflect increasing compensation to investors for being unable to use their cash now	CORRECT	INCORRECT
The yield on long-term loan notes is lower than the yield on short-term loan notes because long-term debt is less risky for an investor than short-term debt	CORRECT	INCORRECT
Expectations theory states that future interest rates reflect expectations of future inflation rate movements	CORRECT	INCORRECT

20 Due to the depressed economic conditions in its home country, YNM Co has started to export its products and is considering methods of hedging the related currency risk.

Which TWO of the following statements are correct?

- Currency futures involve the payment of a premium
- Currency swaps are traded over the counter (OTC)
- Forward exchange contracts can be either exercised or lapsed
- Selling currency options can expose a company to risk

The following scenario relates to questions 21–25.

TRE Co, whose home currency is the dollar (\$), regularly imports from suppliers in countries that use the euro. The company expects to pay €1,200,000 in six months' time to a foreign supplier. The following exchange rates are available to TRE Co:

Spot exchange rate:	€4.1780–€4.2080 per \$1
Six-month forward exchange rate:	€4.2302–€4.2606 per \$1
Twelve-month forward exchange rate:	€4.2825–€4.3132 per \$1

21 Which of the following types of currency risk is TRE Co exposed to?

- (1) Transaction risk
- (2) Translation risk
- (3) Basis risk

- 1 only
- 1 and 2 only
- 2 and 3 only
- 1, 2 and 3

22 What is the loss or gain (compared to its current dollar value) which TRE Co will incur by taking out a forward exchange contract on the future euro payment?

- \$3,544 loss
- \$3,544 gain
- \$3,521 loss
- \$3,521 gain

23 Which TWO of the following statements about forward exchange contracts are correct?

- Forward contracts require the payment of a premium
- Forward contracts are exchange traded
- Forward contracts are settled by physical delivery
- Forward exchange rates are set using interest rate parity theory

24 What is the annual euro interest rate implied by the twelve-month forward exchange rate, given that the dollar interest rate is 2% per year?

Select... ▼
0.49%
3.27%
0.24%
4.55%

25 Identify, by clicking on the relevant box, whether each of the following would be effective in managing TRE Co's exposure to currency economic risk.

Currency futures	EFFECTIVE	INEFFECTIVE
Exporting to countries that use the euro	EFFECTIVE	INEFFECTIVE
Money market hedging	EFFECTIVE	INEFFECTIVE
Currency options	EFFECTIVE	INEFFECTIVE

The following scenario relates to questions 26–30.

At a recent meeting of the board of directors of Doe Co, it was suggested that the company might be suffering liquidity problems as a result of overtrading.

Extracts from the financial statements of Doe for 20X5, and from the forecast financial statements for 20X6, are given below.

Statement of profit or loss for years ending 31 December

	20X6	20X5
	\$000	\$000
Revenue	8,300	6,638
Cost of sales	4,900	3,720
	<hr/>	<hr/>
Gross profit	3,400	2,918
Administration and distribution expenses	2,700	2,318
	<hr/>	<hr/>
Profit before interest and tax	700	600
Interest	125	100
	<hr/>	<hr/>
Profit before tax	575	500
	<hr/>	<hr/>

Statement of financial position extracts as at 31 December

	20X6		20X5	
	\$000	\$000	\$000	\$000
Non-current assets		1,650		1,500
Current assets				
Inventory	3,200		2,700	
Trade receivables	2,750		2,000	
	<hr/>	5,950	<hr/>	4,700
		<hr/>		<hr/>
Total assets		7,600		6,200
		<hr/>		<hr/>
Equity				
Ordinary shares		400		400
Reserves		1,400		1,300
		<hr/>		<hr/>
		1,800		1,700
Current liabilities				
Trade payables	2,550		1,800	
Bank overdraft (variable interest rate)	2,750		2,300	
Other liabilities	500		400	
	<hr/>	5,800	<hr/>	4,500
		<hr/>		<hr/>
Total equity and liabilities		7,600		6,200
		<hr/>		<hr/>

26 Identify, by clicking on the relevant box, whether each of the following is an indicator that a business may be overtrading.

Falling payables payment period	INDICATOR	NOT AN INDICATOR
Increasing overdraft	INDICATOR	NOT AN INDICATOR
Falling current ratio	INDICATOR	NOT AN INDICATOR
Falling revenues	INDICATOR	NOT AN INDICATOR

27 Assuming there are 365 days in a year, complete the following table, by dragging and dropping the tokens into the appropriate place, to reflect the correct calculation of Doe Co's operating cycle at 31 December 20X5.

Tokens	Add/subtract		Days
Subtract			
		Inventory holding period	C
Add			
110 days	A	Receivables collection period	D
177 days			
	B	Trade payables payment period	E
265 days			
		Operating cycle at 31 December 20X5	198

28 What is Doe Co's forecast return on capital employed (to the nearest percentage) for 20X6?

 %

29 Which of the following statements best describes Doe Co's financing strategy?

- Conservative
- Risk-averse
- Matching
- Aggressive

30 Which TWO of the following are possible methods for Doe Co to hedge the interest rate risk on its overdraft?

- Buy an interest rate floor
- Sell interest rate futures
- Sell an interest rate cap
- Enter into a forward rate agreement

Section C

This section of the exam contains two constructed response questions.
Each question contains a scenario which relates to one or more requirement(s).
Each question is worth **20 marks** and is compulsory.
This section is worth **40 marks** in total

31 This scenario relates to three requirements.

MN Taxis Co is considering the replacement policy for the cars used in the business. The cost of each car when new is \$23,000. Due to the great distances covered, the cars need to be replaced every two or three years. Maintenance costs and resale values for the cars used by the business are as follows:

<i>Year</i>	<i>Annual maintenance (\$)</i>	<i>Resale value (\$)</i>
1	700	Not applicable
2	900	16,200
3	1,650	11,800

All the above values are expressed in current price terms. Maintenance costs are expected to inflate by 8% per year and resale values are expected to inflate at a rate of 3% per year. The appropriate nominal discount rate is 13% per year.

Required:

- (a) Calculate the optimal replacement policy for the cars in a choice between a two-year or three-year replacement cycle. (9 marks)
 - (b) Discuss THREE ways a company can incorporate risk and uncertainty into its investment appraisal process. (6 marks)
 - (c) Discuss the strengths and weaknesses of internal rate of return in appraising capital investments. (5 marks)
- (20 marks)**

32 This scenario relates to three requirements.

Jeronimo Co currently has 5 million ordinary shares in issue, which have a market price of \$1.60 per share. The company wishes to raise finance for a major investment project by means of a rights issue, and is proposing to issue shares on the basis of 1 for 5 at a price of \$1.30 per share.

James Brown currently owns 10,000 shares in Jeronimo Co and is seeking advice on whether or not to take up the proposed rights.

Required:

(a) Explain the difference between a rights issue and a scrip issue. Your answer should include comment on the reasons why companies make such issues and the effect of the issues on private investors. (6 marks)

(b) Calculate the theoretical value of:

(i) James Brown's shareholding if he takes up his rights; and

(ii) James Brown's rights if he chooses to sell them. (4 marks)

(c) Using only the information given below, calculate Jeronimo Co's cost of equity.

Current share price: \$1.60 per share

Dividend paid (cents per share):

20X2: 8

20X3: 9

20X4: 11

20X5: 11

20X6: 12

(4 marks)

(d) Renpec Co, a subsidiary of Jeronimo Co, has set a minimum cash account balance of \$7,500. The cost to the company of making or selling short-term investments is \$18 per transaction and the standard deviation of its cash flows was \$1,000 per day during the last year. The annual interest rate on short-term investments is 5.11%.

Determine the spread, the upper limit and the return point for the cash account of Renpec Co using the Miller-Orr model and explain the relevance of these values for the cash management of the company. (6 marks)

(20 marks)

Formula Sheet

Economic order quantity

$$= \sqrt{\frac{2C_oD}{C_h}}$$

Miller – Orr Model

Return point = Lower limit + ($1/3 \times$ spread)

$$\text{Spread} = 3 \left[\frac{\frac{3}{4} \times \text{transaction cost} \times \text{variance of cash flows}}{\text{interest rate}} \right]^{\frac{1}{3}}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i(E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1-T))} \beta_e \right] + \left[\frac{V_d(1-T)}{(V_e + V_d(1-T))} \beta_d \right]$$

The Growth Model

$$P_0 = \frac{D_0(1+g)}{(r_e - g)} \quad r_e = \frac{D_0(1+g)}{P_0} + g$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$\text{WACC} = \left[\frac{V_e}{V_e + V_d} \right] k_e + \left[\frac{V_d}{V_e + V_d} \right] k_d(1-T)$$

The Fisher formula

$$(1 + i) = (1 + r) (1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 \times \frac{(1 + h_c)}{(1 + h_b)} \quad F_0 = S_0 \times \frac{(1 + i_c)}{(1 + i_b)}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

where r = discount rate

n = number of periods until payment

		<i>Discount rate (r)</i>										
<i>Periods</i>												
<i>(n)</i>	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%		
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1	
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	2	
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	3	
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	4	
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	5	
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	6	
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	7	
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	8	
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	9	
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	10	
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350	11	
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	12	
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	13	
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	14	
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	15	
<i>(n)</i>	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%		
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1	
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694	2	
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579	3	
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482	4	
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402	5	
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335	6	
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279	7	
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233	8	
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194	9	
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162	10	
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135	11	
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112	12	
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093	13	
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078	14	
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065	15	

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

where r = discount rate
 n = number of periods

		<i>Discount rate (r)</i>										
<i>Periods</i>		1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1	
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	2	
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	3	
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	4	
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	5	
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	6	
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	7	
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	8	
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	9	
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	10	
11	10.37	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495	11	
12	11.26	10.58	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	12	
13	12.13	11.35	10.63	9.986	9.394	8.853	8.358	7.904	7.487	7.103	13	
14	13.00	12.11	11.30	10.56	9.899	9.295	8.745	8.244	7.786	7.367	14	
15	13.87	12.85	11.94	11.12	10.38	9.712	9.108	8.559	8.061	7.606	15	
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%		
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1	
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528	2	
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106	3	
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589	4	
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991	5	
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326	6	
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605	7	
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837	8	
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031	9	
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192	10	
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.586	4.327	11	
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439	12	
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533	13	
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611	14	
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675	15	

End of Question Paper