Applied Skills

Financial Management (FM)

March/June 2019 – Sample Questions

FM ACCA

FM

Time allowed: 3 hours 15 minutes

This question paper is divided into three sections:

Section A – ALL 15 questions are compulsory and MUST be attempted

Section B – ALL 15 questions are compulsory and MUST be attempted

Section C – BOTH questions are compulsory and MUST be attempted

Formulae Sheet, Present Value and Annuity Tables are on pages 11–13.

Do NOT open this question paper until instructed by the supervisor.

Do NOT record any of your answers on the question paper.

This question paper must not be removed from the examination hall.

Think Ahead

ACCA

The Association of Chartered Certified Accountants

Section B – ALL 15 questions are compulsory and MUST be attempted

Please use the grid provided on page two of the Candidate Answer Booklet to record your answers to each multiple choice question. Do not write out the answers to the MCQs on the lined pages of the answer booklet.

Each question is worth 2 marks.

The following scenario relates to questions 16–20

Tulip Co is a large company with an equity beta of 1·05. The company plans to expand existing business by acquiring a new factory at a cost of $20m. The finance for the expansion will be raised from an issue of 3% loan notes, issued at nominal value of $100 per loan note. These loan notes will be redeemable after five years at nominal value or convertible at that time into ordinary shares in Tulip Co with a value expected to be $115 per loan note.

The risk-free rate of return is 2·5% and the equity risk premium is 7·8%.

Tulip Co is seeking additional finance and is considering using Islamic finance and, in particular, would require a form which would be similar to equity financing.

16 What is the cost of equity of Tulip Co using the capital asset pricing model?

A 13·3%
B 10·7%
C 8·1%
D 10·3%

17 Using estimates of 5% and 6%, what is the cost of debt of the convertible loan notes?

A 3·0%
B 5·2%
C 6·9%
D 5·7%

18 In relation to using the dividend growth model to value Tulip Co, which of the following statements is correct?

A The model assumes that all shareholders of Tulip Co have the same required rate of return
B The model assumes a constant share price and a constant dividend growth for Tulip Co
C The model assumes that capital markets are semi-strong form efficient
D The model assumes that Tulip Co's interim dividend is equal to the final dividend

19 Which of the following statements about equity finance is correct?

A Equity finance reserves represent cash which is available to a company to invest
B Additional equity finance can be raised by rights issues and bonus issues
C Retained earnings are a source of equity finance
D Equity finance includes both ordinary shares and preference shares

20 Regarding Tulip Co's interest in Islamic finance, which of the following statements is/are correct?

(1) Murabaha could be used to meet Tulip Co's financing needs
(2) Mudaraba involves an investing partner and a managing or working partner

A 1 only
B 2 only
C Both 1 and 2
D Neither 1 nor 2

The following scenario relates to questions 21–25

Extracts from the financial statements of Bluebell Co, a listed company, are as follows:

	$m
Profit before interest and tax	238
Finance costs	(24)
Profit before tax	214
Corporation tax	(64)
Profit after tax	150

	$m
Assets	
Non-current assets	
Property, plant and equipment	768
Goodwill (internally generated)	105
	873
Current assets	
Inventories	285
Trade receivables	192
	477
Total assets	1,350
Equity and liabilities	
Total equity	688
Non-current liabilities	
Long-term borrowings	250
Current liabilities	
Trade payables	312
Short-term borrowings	100
Total current liabilities	412
Total liabilities	662
Total equity and liabilities	1,350

A similar size competitor company has a price/earnings ratio of 12·5 times.

This competitor believes that if Bluebell Co were liquidated, property, plant and equipment would only realise $600m, while 10% of trade receivables would be irrecoverable and inventory would be sold at $30m less than its book value.

Separately, Bluebell Co is considering the acquisition of Dandelion Co, an unlisted company which is a supplier of Bluebell Co.

21 What is the value of Bluebell Co on a net realisable value basis?

A $140·8m
B $470·8m
C $365·8m
D $1,027·8m

22 What is the value of Bluebell Co using the earnings yield method?

A $2,675m
B $1,200m
C $1,875m
D $2,975m

23 When valuing Bluebell Co using asset-based valuations, which of the following statements is correct?

A An asset-based valuation would be useful for an asset-stripping acquisition
B Bluebell Co's workforce can be valued as an intangible asset
C Asset-based valuations consider the present value of Bluebell Co's future income
D Replacement cost basis provides a deprival value for Bluebell Co

24 Which of the following is/are indicators of market imperfections?

(1) Low volume of trading in shares of smaller companies
(2) Overreaction to unexpected news

A 1 only
B 2 only
C Both 1 and 2
D Neither 1 nor 2

25 Which of the following statements is correct?

A Dandelion Co is easier to value than Bluebell Co because a small number of shareholders own all the shares
B Bluebell Co will have to pay a higher price per share to take control of Dandelion Co than if it were buying a minority holding
C Scrip dividends decrease the liquidity of shares by retaining cash in a company
D Dandelion Co's shares will trade at a premium to similar listed shares because it will have a lower cost of equity

The following scenario relates to questions 26–30

Peony Co's finance director is concerned about the effect of future interest rates on the company and has been looking at the yield curve.

Peony Co, whose domestic currency is the dollar ($), plans to take out a $100m loan in three months' time for a period of nine months. The company is concerned that interest rates might rise before the loan is taken out and its bank has offered a 3 v 12 forward rate agreement at 7·10–6·85.

The loan will be converted into pesos and invested in a nine-month project which is expected to generate income of 580m pesos, with 200m pesos being paid in six months' time (from today) and 380m pesos being paid in 12 months' time (from today). The current spot exchange rate is 5 pesos per $1.

The following information on current short-term interest rates is available:

Dollars	6·5% per year
Pesos	10·0% per year

As a result of the general uncertainty over interest rates, Peony Co is considering a variety of ways in which to manage its interest rate risk, including the use of derivatives.

26 In relation to the yield curve, which of the following statements is correct?

A Expectations theory suggests that deferred consumption requires increased compensation as maturity increases
B An inverted yield curve can be caused by government action to increase its long-term borrowing
C A kink (discontinuity) in the normal yield curve can be due to differing yields in different market segments
D Basis risk can cause the corporate yield curve to rise more steeply than the government yield curve

27 If the interest rate on the loan is 6·5% when it is taken out, what is the nature of the compensatory payment under the forward rate agreement?

A Peony Co pays bank $600,000
B Peony Co pays bank $250,000
C Peony Co pays bank $450,000
D Bank pays Peony Co $600,000

28 Using exchange rates based on interest rate parity, what is the dollar income received from the project?

A $112·3m
B $114·1m
C $116·0m
D $112·9m

29 In respect of Peony Co managing its interest rate risk, which of the following statements is/are correct?

(1) Smoothing is an interest rate risk hedging technique which involves maintaining a balance between fixed-rate and floating-rate debt
(2) Asset and liability management can hedge interest rate risk by matching the maturity of assets and liabilities

A 1 only
B 2 only
C Both 1 and 2
D Neither 1 nor 2

30 In relation to the use of derivatives by Peony Co, which of the following statements is correct?

A Interest rate options must be exercised on their expiry date, if they have not been exercised before then
B Peony Co can hedge interest rate risk on borrowing by selling interest rate futures now and buying them back in the future
C An interest rate swap is an agreement to exchange both principal and interest rate payments
D Peony Co can hedge interest rate risk on borrowing by buying a floor and selling a cap

(30 marks)

Section C – BOTH questions are compulsory and MUST be attempted

Please write your answers to all parts of these questions on the lined pages within the Candidate Answer Booklet.

31 The following information has been taken from the statement of financial position of Corfe Co, a listed company:

	$m	$m
Non-current assets		50
Current assets		
Cash and cash equivalents	4	
Other current assets	16	20
Total assets		70
Equity and reserves		
Ordinary shares	15	
Reserves	29	44
Non-current liabilities		
6% preference shares	6	
8% loan notes	8	
Bank loan	5	19
Current liabilities		7
Total equity and liabilities		70

The ordinary shares of Corfe Co have a nominal value of $1 per share and a current ex-dividend market price of $6·10 per share. A dividend of $0·90 per share has just been paid.

The 6% preference shares of Corfe Co have a nominal value of $0·75 per share and an ex-dividend market price of $0·64 per share.

The 8% loan notes of Corfe Co have a nominal value of $100 per loan note and a market price of $103·50 per loan note. Annual interest has just been paid and the loan notes are redeemable in five years' time at a 10% premium to nominal value.

The bank loan has a variable interest rate.

The risk-free rate of return is 3·5% per year and the equity risk premium is 6·8% per year. Corfe Co has an equity beta of 1·25.

Corfe Co pays corporation tax at a rate of 20%.

Investment in facilities

Corfe Co's board is looking to finance investments in facilities over the next three years, forecast to cost up to $25m. The board does not wish to obtain further long-term debt finance and is also unwilling to make an equity issue. This means that investments have to be financed from cash which can be made available internally. Board members have made a number of suggestions about how this can be done:

Director A has suggested that the company does not have a problem with funding new investments, as it has cash available in the reserves of $29m. If extra cash is required soon, Corfe Co could reduce its investment in working capital.

Director B has suggested selling the building which contains the company's headquarters in the capital city for $20m. This will raise a large one-off sum and also save on ongoing property management costs. Head office support functions would be moved to a number of different locations rented outside the capital city.

Director C has commented that although a high dividend has just been paid, dividends could be reduced over the next three years, allowing spare cash for investment.

Required:

(a) Calculate the after-tax weighted average cost of capital of Corfe Co on a market value basis. (11 marks)

(b) Discuss the views expressed by the three directors on how the investment should be financed. (9 marks)

(20 marks)

32 Pinks Co is a large company listed on a major stock exchange. In recent years, the board of Pinks Co has been criticised for weak corporate governance and two of the company's non-executive directors have just resigned. A recent story in the financial media has criticised the performance of Pinks Co and claims that the company is failing to satisfy the objectives of its key stakeholders.

Pinks Co is appraising an investment project which it hopes will boost its performance. The project will cost $20m, payable in full at the start of the first year of operation. The project life is expected to be four years. Forecast sales volumes, selling price, variable cost and fixed costs are as follows:

Year	1	2	3	4
Sales (units/year)	300,000	410,000	525,000	220,000
Selling price ($/unit)	125	130	140	120
Variable cost ($/unit)	71	71	71	71
Fixed costs ($'000/year)	3,000	3,100	3,200	3,000

Selling price and cost information are in current price terms, before applying selling price inflation of 5% per year, variable cost inflation of 3·5% per year and fixed cost inflation of 6% per year.

Pinks Co pays corporation tax of 26%, with the tax liability being settled in the year in which it arises. The company can claim tax-allowable depreciation on the full initial investment of $20m on a 25% reducing balance basis. The investment project is expected to have zero residual value at the end of four years.

Pinks Co has a nominal after-tax cost of capital of 12% and a real after-tax cost of capital of 8%. The general rate of inflation is expected to be 3·7% per year for the foreseeable future.

Required:

(a) (i) Calculate the nominal net present value of Pinks Co's investment project. (8 marks)

(ii) Calculate the real net present value of Pinks Co's investment project and comment on your findings. (4 marks)

(b) Discuss FOUR ways to encourage managers to achieve stakeholder objectives. (8 marks)

(20 marks)

Formulae Sheet

Economic order quantity

$$= \sqrt{\frac{2C_0D}{C_h}}$$

Miller–Orr Model

$$\text{Return point} = \text{Lower limit} + \left(\frac{1}{3} \times \text{spread}\right)$$

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

The Capital Asset Pricing Model

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

The asset beta formula

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

The Growth Model

$$P_0 = \frac{D_0(1+g)}{\left(r_e - g\right)} \qquad r_e = \frac{D_0(1+g)}{P_0} + g$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

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

The Fisher formula

$$\left(1+i\right) = \left(1+r\right)\left(1+h\right)$$

Purchasing power parity and interest rate parity

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

Present Value Table

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

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	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

(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	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

Discount rate (r)

Periods (n)	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	10·368	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·255	10·575	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·134	11·348	10·635	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·004	12·106	11·296	10·563	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·865	12·849	11·938	11·118	10·380	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	4·486	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