

SOLUTIONS TO END-OF-CHAPTER QUESTIONS CHAPTER 7

► DEVELOP YOUR UNDERSTANDING

► Question 7.1

An oil exploration company will set itself up as a public limited company. It will need a lot of investment from a substantial number of shareholders to provide the necessary cash to purchase oil exploration equipment, to hire skilled employees and to buy exploration licences around the world. This size of investment would not be available to sole traders, partnerships or private limited companies. Investors will also want to limit their liability for the debts of the organisation. There is always a risk that no oil will be discovered so that the company does not survive.

A taxi driver would set up as a sole trader as driving a taxi is a straightforward operation that will require no major financing or present any other difficulties that might be overcome by adopting a different business format. The taxi driver just needs to buy a car and a hackney carriage licence, all of which expenditure can be met from personal savings. Day-to-day expenditure, such as petrol and repairs, can be paid for from the receipts from fares.

A family-run knitwear manufacturing business would adopt the private limited company format. As this is a family business, the family will want to maintain control of day-to-day operations, which would be lost if the business were to set up as a public limited company. The private limited company will be able to borrow money to buy specialised knitwear machinery and equipment while affording the family business limited liability if the business venture were to fail. As a private limited company, the family will be able to concentrate on ensuring that the business will be a commercial success without being distracted by the demands of many outside shareholders.

The business format most suited to the two friends setting up a dance school will be the partnership. Each of the two friends will want to have an equal share in running the school and in contributing to its success. Additionally, both friends will be entitled to share profits in the venture equally. The operations of the dance school will be straightforward with no complexities that would make a different format more suitable.

► Question 7.2

Annual interest received on the bond: $£200,000 \times 5 \text{ per cent} = £10,000$

Annual dividend from the investment in the 50 pence preference shares: $£200,000 = 400,000$
preference shares of 50 pence each $\times 3 \text{ pence per share} = £12,000$

Annual dividend from the investment in the 25 pence ordinary shares: $£200,000 = 800,000$
ordinary shares of 25 pence each $\times 2 \text{ pence per share} = £16,000$.

Solution to end-of-chapter questions **Chapter 7**

Therefore, the investor should invest in the 25 pence shares to maximise income from the £200,000 investment. The investor should also be aware that the ordinary shares are the riskiest of the three possible investments as they may generate no dividend at all and, should the company go into liquidation, the investor may lose all of the £200,000 investment. Alternatively, the dividend per share on the ordinary shares may increase and the value of the shares may also increase, potentially raising the income and capital value of the ordinary shares. The income from the bond and the preference shares, however, will remain the same for each year.

▶ Question 7.3

Borrowing from the bank at 5 per cent per annum: $£3,000,000 \times 5 \text{ per cent} = £150,000$ annual cost

Ordinary shares of 40 pence each: number of ordinary shares with a par value of 40 pence each = $£3,000,000 \div 0.40 = 7,500,000$ shares $\times £0.019 = £142,500$ annual dividend

Preference shares of 60 pence each: number of preference shares with a par value of 60 pence each = $£3,000,000 \div 0.60 = 5,000,000$ shares $\times £0.0315 = £157,500$ annual dividend

Therefore the ordinary shares option will require the lowest cash outlay.

Alternatively, you might have compared the interest or dividend rates on each financing method. The interest on the loan is payable at 5 per cent. The required dividend rate on the ordinary shares is equivalent to a 4.75 per cent return ($1.9 \text{ pence} \div 40 \text{ pence}$) while the return on the preference shares is 5.25 per cent ($3.15 \text{ pence} \div 60 \text{ pence}$). Therefore the percentage return on the ordinary dividend is the lowest and will provide the lowest financing cost.

▶▶ TAKE IT FURTHER**▶▶ Question 7.4**

- (a) $£1 \text{ par value} \times 6 \text{ per cent} = £0.06$ dividend per share $\times 100,000$ shares = £6,000
- (b) $100,000$ ordinary shares $\times 10$ pence + $100,000$ ordinary shares $\times 20$ pence = £30,000
- (c) $£45,000$ retained earnings at 1 November 2017 + $£50,000$ profit for the year – $£6,000$ preference dividend – $£30,000$ ordinary dividend = $£59,000$ retained earnings at 31 October 2018

▶▶ Question 7.5

- (a) Amounts to be added to ordinary share capital and share premium in the statement of financial position in respect of the issue of ordinary shares on 1 May 2019:
- Par value of ordinary shares: 50 pence (Question 7.4)
 - Issue price per share: $£2.50$ ($£500,000 \div 200,000$ shares)
 - Therefore, the premium on each share issued = $£2.50$ (issue price) – $£0.50 = £2.00$
 - Additional ordinary share capital: $200,000$ shares $\times £0.50 = £100,000$
 - Additional share premium: $200,000$ shares $\times £2.00 = £400,000$

Solution to end-of-chapter questions **Chapter 7**

- (b) Total dividends, both ordinary and preference, to be paid in the year to 31 October 2019:
- Preference dividends: no change as no additional preference shares have been issued, so preference dividends remain at £6,000
 - Ordinary dividends paid on 15 April 2019: 100,000 shares \times £0.15 = £15,000 (new ordinary shares not issued until 1 May 2019, so there were only 100,000 ordinary shares in issue on 15 April 2019)
 - Ordinary dividends paid on 15 October 2019: (100,000 shares + 200,000 shares) \times £0.25 = £75,000
 - Total ordinary dividends for the year to 31 October 2019: £15,000 (15 April 2019) + £75,000 (15 October 2019) = £90,000
 - Total dividends, both preference and ordinary, to be paid in the year to 31 October 2019 = £6,000 (preference) + £90,000 (ordinary) = £96,000
- (c) Expected balance on retained earnings at 31 October 2019 after dividends for the year have been paid:
- Retained earnings at 31 October 2018 from Question 7.4 (c): £59,000
 - + £90,000 (profit for the year to 31 October 2019)
 - – £96,000 (total ordinary and preference dividends for the year to 31 October 2019 from (b))
 - = £53,000

» Question 7.6

Calculate for Halysion plc:

- (a) The number of bonus shares to be issued:
- 500,000 ordinary shares currently in issue
 - Seven new shares for every two held
 - So $500,000 \times 7 \text{ new shares} \div 2 = 1,750,000$ new shares
- (b) The par value of the bonus shares to be added to ordinary share capital:
- $1,750,000 \times 25 \text{ pence} = £437,500$
- (c) The number of ordinary shares to be issued in the rights issue:
- Number of shares in issue after the bonus issue: 500,000 (original) + 1,750,000 (bonus issue) = 2,250,000 shares
 - Rights issue: five new ordinary shares for every three ordinary shares currently held
 - Therefore, $2,250,000 \div 3 \text{ shares} \times 5 \text{ shares} = 3,750,000$ new ordinary shares issued in the rights issue

Solution to end-of-chapter questions **Chapter 7**

- (d) The amount to be added to ordinary share capital and share premium as a result of the rights issue:
- 3,750,000 new shares issued in the rights issue from answer (c)
 - Par value: 25 pence
 - Therefore, par value of shares issued under the rights issue = $3,750,000 \times \text{£}0.25 = \text{£}937,500$
 - Share premium on each share issued: $\text{£}0.95 - \text{£}0.25 = \text{£}0.70$
 - Total share premium on the issue of 3,750,000 25 pence shares at $\text{£}0.95 = 3,750,000 \times \text{£}0.70 = \text{£}2,625,000$
- (e) The preference dividend for the year to 30 June 2019:
- Preference dividend per share: $\text{£}1 \times 0.075 = \text{£}0.075$
 - Total preference dividend on 300,000 shares = $300,000 \times \text{£}0.075 = \text{£}22,500$
- (f) The ordinary dividend for the year to 30 June 2019:
- Number of ordinary shares in issue at 30 June 2019: 500,000 (before bonus and rights issues) + 1,750,000 (bonus issue) + 3,750,000 (rights issue) = 6,000,000
 - Ordinary dividend per share: $\text{£}0.30$
 - Total dividend on ordinary shares at 30 June 2019 = $6,000,000 \times \text{£}0.30 = \text{£}1,800,000$
- (g) The balance on the ordinary share capital account on 30 June 2019:
- $500,000 \times \text{£}0.25 + \text{£}437,500$ (b) (bonus issue) + $\text{£}937,500$ (c) (rights issue) = $\text{£}1,500,000$
- (h) The expected balance on retained earnings at 30 June 2019:
- Balance at 1 July 2019: $\text{£}5,200,000$
 - – $\text{£}437,500$ (b) (bonus issue)
 - – $\text{£}22,500$ (e) (preference dividend)
 - – $\text{£}1,800,000$ (f) (ordinary dividend)
 - – $\text{£}1,500,000$ (loss for the year from the question)
 - = $\text{£}1,440,000$