Version OC/5

EGT3
ENGINEERING TRIPOS PART IIB

Thursday 2 May 2024 9.30 to 11.10

Module 4E6

ACCOUNTING AND FINANCE

Answer not more than two questions.

Answer not more than one question from each section.

All questions carry the same number of marks.

The approximate percentage of marks allocated to each part of a question is indicated in the right margin.

*Write your candidate number **not** your name on the cover sheet.*

STATIONERY REQUIREMENTS
Single-sided script paper

SPECIAL REQUIREMENTS TO BE SUPPLIED FOR THIS EXAM
Engineering Data Book
CUED approved calculator allowed

10 minutes reading time is allowed for this paper at the start of the exam.

You may not start to read the questions printed on the subsequent pages of this question paper until instructed to do so.

You may not remove any stationery from the Examination Room.

SECTION A

*Answer not more than **one** question from this section*

1 (a) Consider the journal entries for Firm X vs. Firm Y over the same time period in Table 1. Which of the following statements is true? Please explain your answer. [32%]

(i) Net Income for Firm Y is lower than it is for Firm X.

(ii) Firm X issued dividends and Firm Y did not.

(iii) Firm Y collected more cash than Firm X.

(iv) Firm Y offered credit to its customers and Firm X did not.

Table 1

Firm X	Firm Y
(Debit) Cash £100 (Credit) Sales £100	(Debit) Cash £50 (Debit) Acct Receivable £50 (Credit) Sales £100
(Debit) Cost of Goods Sold £40 (Credit) Inventory £40	(Debit) Cost of Goods Sold £40 (Credit) Inventory £40

(b) During the Accounting part of the course, we discussed managerial incentives to report certain levels of earnings. Please list two financial statements accounts (or operations that affect accounts) that a manager might use to commit fraud and explain how s/he would do it. Several answers are possible. [40%]

(c) Successful businesspeople judge cash flow as an important measure of economic performance and financial health of the firm. For instance, Virgin's Richard Branson advises to "(n)ever take your eyes off the cash flow because it's the life blood of business." Michael Dell, the founder of Dell Technologies, said that "(w)e were always focused on our profit and loss statement. But cash flow was not a regularly discussed topic. It was as if we were driving along, watching only the speedometer, when in fact we were running out of gas." Explain briefly what a cash flow statement is and discuss why these executives imply that it is a complement or it is even superior to the income statement. [28%]

2 (a) Consider the actual footnote from the 2023 Walmart Annual Report in Figure 2. Which of the following statements is true? Please also provide a numerical example with journal entries to illustrate your answer. [32%]

(i) Walmart reports a "Sales Returns Expense" when a customer returns an item.

(ii) Walmart reduces its "Sales Revenue" as soon as it makes a sale, for the amount of estimated returns, based on historical patterns of returns by prior customers.

(iii) Walmart debits "Cash" for the amount of sales tax collected and credits "Sales Tax Revenue".

(iv) None of the previous items is true.

Revenue Recognition

Net Sales

The Company recognizes sales revenue, net of sales taxes and estimated sales returns, at the time it sells merchandise or services to the customer. eCommerce sales include shipping revenue and are recorded upon delivery to the customer. Estimated sales returns are calculated based on expected returns.

Fig. 2

(b) The balances in Table 2 were taken from the end-of-year trial balance before adjustments of Cam Company.

(i) Prepare the journal entry for estimated bad debts assuming that Allowance for Doubtful Accounts is estimated to be 6% of gross Accounts Receivable. Prepare the corresponding T-account for AFDA showing its final balance. [12%]

(ii) Assume that all the information above is the same, except that the Allowance for Doubtful Accounts has a debit balance of £3,500 instead of a credit balance. How will this change affect the journal entry and T-account in part (i)? Show both the new journal entries and the new T-account. [8%]

(iii) What circumstance would have led to a debit balance in Allowance for Doubtful Accounts? [8%]

Table 2

	Debit	Credit
Accounts Receivable	£150,000	
Allowance for Doubtful Accounts		£3,500
Net Sales (all on credit)		£810,000

(c) On 6 July 2020, Bloomberg published an article with the following title “Big Four Face Big Split as Watchdog Sets Separation Deadline”, which beginning is transcribed:

> The U.K.’s dominant accounting firms must separate their audit units from other operations by June 2024 as the country’s industry watchdog reacts to shortcomings that led to the collapse of several companies.
>
> The Financial Reporting Council is asking the so-called Big Four—KPMG, Deloitte, PricewaterhouseCoopers LLC and Ernst & Young—to agree to operational separation to ensure audit practices don’t rely on “persistent cross-subsidy from the rest of the firm,” it said Monday. [...]
>
> The guidelines seek to prevent accountants from being influenced by other parts of a firm’s business that could divert the focus away from audit quality, the regulator said.
>
> Fixing the conflict of interest is a good first step, says Karthik Ramanna, a professor of public policy at the University of Oxford. But to work, that needs to be bolstered by genuine cultural change within the audit firms—away from the mindset that auditors are “advisers” to senior executives, he says.
>
> “Junior auditors need to know that their firms will reward and promote them for questioning their clients’ management assumptions,” says Ramanna. “Otherwise, it is easy to see how audit firms can be in compliance with the letter of the FRC’s new rules without honouring the spirit.”
>
> The reaction from all of the Big Four to the FRC’s announcement was broadly supportive.
>
> “It is clear however that operational separation of the U.K.’s audit firms is just the first step on the journey to restoring trust in U.K. Plc,” said Jon Holt, KPMG’s head of U.K. auditing, in a statement.

Prof. Karthik Ramanna stresses that “Junior auditors need to know that their firms will reward and promote them for questioning their clients’ management assumptions.”

Acting as a junior auditor, please list three questions you could ask the CFO of Apple about the assumptions used in its revenue recognition policy. Justify why you decided to ask these questions, notably by detailing their relevance to the specific context (industry and business model) of Apple. For context, Apple sells hardware products like the iPhone, MacBook laptops, and iPad tablets, which receive software updates over several years; it sells bundles of iPhone with AppleCare+, a type of insurance covering issues like damage protection; and it also sells services like Apple Music and Apple TV+ in separate or in bundles (Apple One). [40%]

SECTION B

*Answer not more than **one** question from this section*

3 MedTech is a vaccine development company and has been undergoing rapid growth. The company therefore reinvests all of its profits into new vaccine research. Given its pipeline of opportunities, the company expects to start paying dividends in five years' time which is forecasted to be £4.50 per share. The dividends are expected to grow at a long-term annual average growth rate of 2.5%. Assume the discount rate for the dividends is 9%.

(a) Calculate the price of the share today. [60%]

(b) If the approval of the company's flagship product is granted earlier, the company expects to start paying dividends from year 3 instead, also at £4.50 and growing at the same long-term growth rate of 2.5%. If this was announced today, discuss what will be the impact on the share price and if any calculate by how much? [40%]

4 AI Logistics is a technology company using artificial intelligence in international freight. The company is planning to issue a five year zero-coupon bond to fund its new expansion. Assume a par value of £100.

(a) If the bond is issued at £82, calculate the yield-to-maturity (YTM) that the bondholders will receive. [60%]

(b) If the CFO and the investment banks underwriting the bond issue think that the fair return to bond investors should be 3.55%, at what price should they issue the bond instead and discuss why? [40%]

END OF PAPER

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