EGT3
ENGINEERING TRIPOS PART IIB

Thursday 7 May 2026 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

CUED approved calculator allowed

Engineering Data Book

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) The end-of-year trial balance before adjustment of Nova Company reports the following balances (please see *Table 1* below):

Account	**Dr.**	**Cr.**
Accounts receivable	$150,000	
Allowance for doubtful accounts		$2,500
Net Sales (all on credit)		$810,000

Table 1: Nova Company data

(i) Prepare the entries for estimated bad debts assuming that doubtful accounts are estimated to be 6% of gross accounts receivable. [10%]

(ii) Assume that all the information above is the same, except that the Allowance for Doubtful Accounts has a debit balance of $2,500 instead of a credit balance. How will this difference affect the journal entries in part (i)? [15%]

(iii) What circumstance would have led to a debit balance in Allowance for Doubtful Accounts? [15%]

(iii) Is the Allowance for Doubtful Accounts more about accurately portraying economic reality, or about protecting the company from future criticism and risk? Where should the balance lie between prudence and optimism in financial reporting? [20%]

(b) Truston Corporation showed the following selected (i.e. incomplete) data in its 2025 balance sheet (that is, there could be asset, liability, and/or equity balances not included below – see *Table 2*):

	31 Dec 2025	**31 Dec 2024**	**Change**
Cash	$340,000	$70,000	+ $270,000
Accounts Receivable	$130,000	$150,000	- $20,000
Land	$320,000	$400,000	- $80,000
Property Plant and Equipment	$200,000	$200,000	0
Accumulated Depr: PPE	($40,000)	($20,000)	- $20,000
Accounts Payable	$35,000	$45,000	- $10,000
Bonds Payable	$60,000	$60,000	
Common Stock	$400,000	$350,000	+ $50,000

Table 2: Truston Corporation Data

During 2025:

- Truston Corp. sold land with a book value of $80,000 for $110,000 cash. No other long-term assets were bought or sold.
- Truston Corp. obtained an additional $50,000 from equity (common stock) investors. No other transactions with owners or creditors took place during the year.

(i) Compute Truston Corp.'s 2025 Net Income or Loss. Assume that any balance sheet accounts omitted above did not change during the year, with the exception of retained earnings. [25%]

(ii) If net income can be known without observing revenues or expenses, what does that imply about how we know profit? [15%]

2 (a) You are analysing Orion Infrastructure Group, a capital-intensive firm operating long-term public-private partnership (PPP) contracts. Please find below *Table 3* with the extracts from Orion's yeat *t* financials.

Item	**Amount (£m)**
Revenue	1,600
Operating profit	140
Net income	20
Operating cash flow	- 60
Investing cash flow	- 550
Financing cash flow	650

Table 3: Extracts from Orion's Year t financials

Additional disclosures:

- Impairment of long- lived assets: £80m
- Trade receivables increased by 30% during the year
- No change in reported bad debt assumptions

(i) Explain how Orion can simultaneously report positive operating profit, negative operating cash flow, and positive net change in cash. [10%]

(ii) Explain the accounting logic of an impairment, including why it reduces reported earnings but does not affect operating cash flow. In your answer, also explain where an impairment is recognised in the financial statements, referring to both the income statement and the balance sheet. [15%]

(iii) Explain why rapid growth in receivables is often an early warning sign of underlying economic problems. Then identify two accounting choices management can use to delay recognition of such economic decline and explain briefly how these choices affect future reported performance. [15%]

(iv) Explain why cash is often viewed as more reliable than earnings and why this belief can fail in practice. [10%]

2 (b) Quantum Corporation reported the following data for 2025 (please see *Table 4* below):

Item	**Amount (£)**
Net Income	20,000
Increase in A/P	3,000
Increase in Accounts Receivable	2,000
Depreciation Exp	10,000
Decrease in Inventory	2,000
Sale of Equipment	10,000 (book value was 9,000)
Dividends paid	4,000
New Loan Borrowed	12,000

Table 4: Quantum Corporation data

(i) Compute the Cash Flows from Financing [5%]

(ii) Compute the Cash Flows from Investing [5%]

(iii) Compute the Cash Flows from Operations using the indirect method [10%]

(iv) If the January 1, 2025 Cash Balance in the Balance Sheet was £40,000, what is the December 31, 2025 Balance? [10%]

(v) What financial condition (e.g. healthy or struggling) and what life-cycle stage (e.g. growing, steady, declining) do you think Quantum Corporation is in? More broadly, what story do these numbers tell about the company's priorities, risk appetite, and long-term strategy? [20%]

SECTION B

Answer not more than one question from this section

3 Northland Power Inc (NPI) is a global power producer which develops, owns and operates energy infrastructure assets including offshore and onshore wind, solar, and natural gas. On November 12th 2025, the price of NPI shares closed $24.92. After the closing bell that day, NPI reported its financial results for the 3rd quarter of 2025 (the 3-month period ending September 30th 2025). The announcement included a notice that its annual dividend per share will be reduced from $1.20/share to $0.72/share beginning January 1st 2026. NPI also announced a $527 million non-cash accounting adjustment for an offshore wind facility near Germany. Also, it announced a delay in the start of revenue from an offshore wind project in Taiwan that would reduce 2026 revenues in the range of $150 million to $200 million. The opening share price on November 13th 2025 was $19.11.

The following Summary of Consolidated Results was included in NPI's announcement of its Q3 financial results:

Table 5

Use the information contained in the announcement of the financial results (*Table 5*) after the closing bell on November 12th 2025 to answer the following questions:

(a) Calculate the market capitalisation of NPI at the closing bell (end of the trading session) on November 12th 2025 and at the opening bell (start of the trading session) on November 13th 2025. What loss in both amount and percentage terms would an investor owning 100,000 shares of NPI on November 12th 2025 have incurred? Show your calculations. [30%]

(b) Separately calculate the dividend yield from January 1st 2026 using the share price at the closing bell on November 12th 2025 and the share price at the opening bell on

November 13th 2025; What is the amount of the reduction in the quarterly dividend income received by the investor owning 100,000 shares of NPI in 2026 versus 2025? Show your calculations. [30%]

(c) Consider the information contained in the announcement of financial results and the change in share price after the announcement. In your opinion, is NPI is perceived more as a growth stock or an income stock by investors in NPI shares? Explain why. [20%]

(d) Calculate the payout ratios for the nine months to September 30th 2025 and the nine months to September 30th 2024. Explain what the payout ratio indicates about dividend sustainability and the reason why NPI decided to cut its dividend in that context. [20%]

4 Northland Power Inc (NPI) is a global power producer which develops, owns and operates energy infrastructure assets including offshore and onshore wind, solar, and natural gas. Assume that you are a prospective investor that attended the Northland Power Inc (NPI) annual investor day on November 20th 2025 when the price of NPI shares was $20.00. The management presentation to investors included an estimate of free cash flow per share in 2025 in the range of $1.15 to $1.35 per share. NPI also announced that it will invest $6 billion in equal instalments over the next 5 years in a new wind farm project which will generate a fixed annual return of 12% on the investment over the following 20 years.

(a) Calculate the intrinsic value per share of NPI on November 20th 2025 which incorporates both (i) the no-growth valuation of NPI assuming the mid-point in the free cash flow per share range for 2025; and (ii) the net present value of the wind farm growth opportunity. Assume the cost of capital is 5% and there are 261.502 million shares issued and outstanding. [50%]

(b) Will a future change in the amount of dividend paid to investors affect your intrinsic share value calculation in part (a) assuming there is no change in free cash flow? Explain your answer. [15%]

(c) Assume that an investor is deciding whether to invest in either the shares or the bonds issued by NPI. The bonds have 5 years remaining to maturity, a face value of $1,000, and an annual coupon rate of 7%.

(i) Calculate the yield to maturity (YTM) of the bond, assuming a market price of $980. [10%]

(ii) Calculate the expected annual return for an investor purchasing the shares today at $20.00 per share, assuming the price of NPI shares in 5 years will converge to the intrinsic value per share calculated in part (a). [10%]

(iii) Based on your answers to parts (i) and (ii), explain the factors an investor should consider when comparing the risk-adjusted return from investing in NPI shares versus NPI bonds. In your answer, refer to the difference in expected returns and the risks associated with each investment. [15%]

END OF PAPER