Answers

1 – Tots Ltd

(a) Cash Budget

	Note	Jan £000	Feb £000	Mar £000	Apr £000	May £000	Jun £000	Total £000
Cash inflows								
Sales	1	1,274	1,414	1,610	1,806	1,512	1,372	8,988
Rental income	2	7	7	7	6	6	6	39
		1,281	1,421	1,617	1,812	1,518	1,378	9,027
Cash outflows								
Purchases	3	650	750	850	950	700	700	4,600
Permanent staff		150	150	150	150	150	150	900
Temporary staff	4	45	51	57	0	0	0	153
Delivery	5	30	34	38	14	14	14	144
Administration	6	30	34	38	28	28	28	186
Conference		2					3	5
Computer system							200	200
Depreciation – ignore								
		907	1,019	1,133	1,142	892	1,095	6,188
Net cash flow		374	402	484	670	626	283	2,839
Opening balance		1,200	1,574	1,976	2,460	3,130	3,756	1,200
Closing balance		1,574	1,976	2,460	3,130	3,756	4,039	4,039

(The total column is a useful arithmetic check but not specifically required by the question.)

Notes

1. Sales

	Nov £000	Dec £000	Jan £000	Feb £000	Mar £000	Apr £000	May £000	Jun £000
Sales volume								
Per the question	1,300	1,300	1,500	1,700	1,900	1,400	1,400	1,400
Sales receipts								
70% paid in 1 month	n/a	n/a	910	1,050	1,190	1,330	980	980
28% paid in 2 months	n/a	n/a	364	364	420	476	532	392
			1,274	1,414	1,610	1,806	1,512	1,372

2. Rental income

	Jan £000	Feb £000	Mar £000	Apr £000	May £000	Jun £000	Jul £000
Play Centre 1 and 2 (2 x £3,000/£3,500)	7	7	7	7	6	6	6
Received one month in advance	7	7	7	6	6	6	
	7	7	7	6	6	6	

3. Purchases

Orders are made each month for the following month's requirements, but 60 days credit is taken. This means that the company is paying for the previous month's purchase requirements each month.

	Dec £000	Jan £000	Feb £000	Mar £000	Apr £000	May £000	Jun £000
Sales volume							
Per the question	1,300	1,500	1,700	1,900	1,400	1,400	1,400
Purchase requirements at 50%	650	750	850	950	700	700	700
Payments to suppliers	n/a	650	750	850	950	700	700

4. Temporary staff (Jan to March only)

	Jan £000	Feb £000	Mar £000
Sales levels	1,500	1,700	1,900
Temp costs at 3%	45	51	57

5. Delivery costs

	Jan £000	Feb £000	Mar £000	Apr £000	May £000	Jun £000
Sales levels	1,500	1,700	1,900	1,400	1,400	1,400
Delivery costs at 2%	30	34	38			
Delivery costs at 1%				14	14	14

6. Administration costs

Per the question, these costs are directly proportionate to sales.
£30,000/£1,500,000 = 2%, therefore calculate these costs as 2% of sales each month.

	Jan £000	Feb £000	Mar £000	Apr £000	May £000	Jun £000
Sales levels	1,500	1,700	1,900	1,400	1,400	1,400
Admin costs at 2%	30	34	38	28	28	28

(b) Motives for holding cash

The three motives for holding cash, as identified by Keynes, are:

(i) The transactions motive. This means that a business holds cash in order to make the payments that are necessary to keep the business going, such as wages, taxes and payments to suppliers. If the business cannot meet its financial obligations as they arise, it may cease to be a going concern. It is therefore the main motive for holding cash.

(ii) The precautionary motive. The second motive for holding cash is so that the business does not find itself in financial difficulties should some unforseen expenses arise. In practice, businesses tend to cover themselves against this by arranging overdraft facilitities with their banks. These do not cost businesses anything unless they are used.

(iii) The speculative motive. This refers to businesses holding cash in case an opportunity to invest and earn money arises. Few businesses are likely to do this in practice as they will lose money whilst waiting for an opportunity to arise.

(c) Possible investments

(i) Certificates of deposit (CDs)

These are negotiable instruments in bearer form. Title belongs to the holder and can be transferred by delivering the certificate to the buyer.

Bank and Building Societies issue these CDs, which will state on them the amount of the deposit and the date of repayment. The deposit amount will usually be at least £100,000 and the repayment date will be anything from one week to five years.

Repayment is obtained by presenting the CD to the issuer on the designated date. Alternatively, since CDs are negotiable, they can be sold at any time by the holder.

CDs usually offer an attractive rate of interest and a low credit risk. They are useful for investing funds in the short term since they can be sold at any time on the secondary market.

Since Tots Ltd has a large amount of cash available over a long period, it does not need instant access to all its cash. It may therefore earn more interest from a money market time deposit, for example, rather than a CD.

(ii) Gilt-edged securities (gilts)

These are marketable British Government securities. The government issues them to finance its spending, but also uses them to control the money supply. Most gilts have a face value of £100 at which the government promises to buy the gilt back on a specific date in the future.

Gilts usually have fixed interest rates, although there are also various index-linked gilts. Where they are the index-linked type, both the interest and the redemption value are linked to inflation, ensuring that a decent real return is gained.

Gilts may be ‘Shorts’ (repaid in less than five years), ‘Mediums’ (repaid in five to fifteen years), or ‘Longs’ (repaid in more than fifteen years). Some of the older gilts, such as $3^1/_2$% War Loans, are irredeemable.

If you buy a gilt and hold it until it is repaid by the government, the return you get will be fixed from the outset. As the government will not default on the debt and the interest to be earned is known in advance, this makes it a low risk investment.

Gilts are also traded on the stock market, however, where their price can go up or down, depending on what people think will happen with interest rates. When interest rates are expected to fall, the price of the gilt rises, and when interest rates are expected to rise, the gilt price falls. Using gilts in this way makes them a more risky investment, but still relatively safe when compared with buying shares on the stock exchange.

Gilts are transferrable on the secondary market in multiples of a penny, but if they are bought from new the minimum investment is £1,000. There is no maximum investment limit. They are easy to transfer and title can even be passed electronically now.

Given that the Brutes are very risk averse when it comes to investing surplus funds, gilts would be a good choice of investment for Tots Ltd.

(iii) Shares

There are two main types of shares – 'ordinary shares' and 'preference shares.'

Ordinary shares are issued to the owners of a company. These shareholders have the right to participate in the running of the company through voting. They also share in the profits of the company through increases in the market value of their shares and through the receipt of dividends.

Ordinary shareholders have no right to be paid dividends, however. In addition, should the company run into financial difficulties, ordinary shareholders are the last group of people to be paid back from the sale of the company's assets. In practice, this means that the capital they invested in the company will usually be lost.

Ordinary shares are therefore a high risk investment. As Mr and Mrs Brute are very risk averse and have already lost money on the stock exchange before, they should not purchase ordinary shares.

Preference shares are shares that have a fixed percentage dividend that is payable in priority to any ordinary dividend. Similarly, preference shareholders will be paid in priority to ordinary shareholders on dissolution of the company.

These shareholders will not participate in the affairs of the company in the same way as ordinary shareholders since they do not have the same voting rights.

Whilst the income from preference shares is more secure than the income from ordinary shares, the capital is still high risk. Given Mr and Mrs Brutes' previous experience, preference shares are not a good choice of investment for them.

(iv) Bills of exchange

A bill of exchange is an unconditional order in writing to pay money.

There are two types of bills of exchange. Firstly, 'sight bills', whereby the money is payable on demand. Secondly, 'term bills', whereby the money is payable at a future date.

The maturity of term bills can vary from two weeks to six months. Their maximum value is £500,000 and they can be denominated in any currency.

The 'drawee' is the party liable to pay the money; the 'payee' is the person who receives the money.

Banks and non-banking institutions are the main buyers of bills on the secondary market.

The buyer makes a profit by purchasing the bill at a discount to its face value, then receiving the full value at maturity, or reselling it before this time.

The level of risk attached to bills depends on the credit quality of the drawer. If the drawer is a large company or institution, the risk will be lower than if the drawer is relatively small and unknown.

Bills are not really a suitable investment for Tots Ltd as they are not in a good position to start assessing the credit quality of drawers. Bills are more suitable for financial institution investors.

2 – Pooch Ltd

(a) Working capital

Sales for the year:	£2,200,000

The costs for the year are:

	£
Raw materials	
£2,200,000 x 15%	330,000
Direct labour	
£2,200,000 x 20%	440,000
Variable production overheads	
£2,200,000 x 11%	242,000
Fixed production overheads	
£2,200,000 x 10%	220,000
Other costs	
£2,200,000 x 12%	264,000
	1,496,000

		£	£
Current assets:			
Stock			
Raw materials	4/52 x £330,000		25,385
W-I-P			
Materials	2/52 x £330,000 x 75%	9,519	
Direct labour	2/52 x £440,000 x 50%	8,462	
Variable and fixed production overheads	2/52 x (£242,000 + £220,000) x 50%	8,885	
			26,866
Finished Goods			
Materials and direct labour	4/52 x (£330,000 + £440,000)	59,231	
Variable and fixed production overheads	4/52 x (£242,000+ £220,000)	35,538	
			94,769
Total stock value			147,020
Debtors	6/52 x £2,200,000		253,846
Total value of current assets			400,866
Current liabilites			
Materials creditor	4/52 x £330,000	25,385	
Labour creditor	1/52 x £440,000	8,462	
Variable production overhead creditor	8/52 x £242,000	37,231	
Fixed production overhead creditor	5/52 x £220,000	21,154	
Other costs creditor	12/52 x £264,000	60,923	
Total value of current liabilities			153,155
Working capital required (£400,866 – £153,155)			247,711

(b) Legal terms

Offer
An 'offer' is a definite promise to be bound on specific terms.

It can be made orally or in writing. It can also be implied from a person's conduct by, for example, despatching goods in response to an offer to buy.

It can be revoked at any time before it has been accepted.

Acceptance
'Acceptance' is the unconditional agreement, by the offeree, to all the terms of the offer.

As with an offer, it can also be oral, written or implied from a person's conduct.

A request for information about an offer is not acceptance.

Consideration
'Consideration' is one party doing something in exchange for another party doing something.

Often, there is simply an exchange of promises, for example, Petcoats Ltd promises to supply items to Pooch Ltd and Pooch Ltd promises to pay them.

Consideration is often simply the price. For example, when one of Pooch Ltd's customers buys an item in the shop, their consideration is the amount they pay for the goods.

3 – Taxi Ltd

(a) Net present value

	Years 0 £'000	1 £'000	2 £'000	3 £'000	4 £'000	5 £'000	Net Present Value
Implementation costs	–700	–700	–700				
Training costs		–425					
Increased revenues (1)	0	800	1,150	1,528	1,934	2,371	
Cost savings (2)	0	110	116	121	127	134	
Operative costs (3)	0	–120	–200	–210	–221	–232	
Maintenance costs	0	–75	–75	–75	–75	–75	
Net cash flow	–700	–410	291	1,364	1,765	2,198	
10% discount factors	1·000	0·909	0·826	0·751	0·683	0·621	
Discounted cash flow	–700	–373	240	1,024	1,205	1,365	2,761

Notes

1. Increased revenues

	Years 1 £'000	2 £'000	3 £'000	4 £'000	5 £'000
Revenues + 5% each year	11,000	11,550	12,128	12,734	13,371
Without Kwictrac	–10,200	–10,400	–10,600	–10,800	–11,000
Increased revenue	800	1,150	1,528	1,934	2,371

2. Savings in costs

Annual revenues	11,000	11,550	12,128	12,734	13,371
Savings at 1%	110	116	121	127	134

3. Operative costs

Additional costs (+ 5% from T3)	120	200	210	221	232

4. Ignore depreciation as not a cash flow.
5. Ignore interest as this is already taken into account in the discounting process.

(b) Simple Payback

Time	Annual cash flows	Cumulative cash flows
0	–700	–700
1	–410	–1,110
2	291	–819
3	1,364	545
4	1,765	2,310
5	2,198	4,508

The simple payback period for the project is three years. This means that in three years' time, the project has recovered its costs and is then making a profit.

(c) Discounted Payback Period

Time	Annual cash flows	Cumulative cash flows
0	–700	–700
1	–373	–1,073
2	240	–833
3	1,024	191
4	1,205	1,396
5	1,365	2,761

The discounted payback period for the project is also three years. This means that in three years' time, the project has recovered its costs and is then making a profit. As this calculation is for the **discounted** payback period, the time value of money has also been taken into account.

(Note: Students will still be awarded full marks where they have not rounded their calculations to the nearest year.)

(d) Time deposits

First instalment of £700,000:

$$\text{Amount required now} = £700,000 \times \frac{1}{(1{\cdot}08)}$$

$$= £648,148$$

Second instalment of £700,000:

$$\text{Amount required now} = £700,000 \times \frac{1}{(1{\cdot}09)^2}$$

$$= £589,176$$

Total deposits = £1,237,324

4 – Skint Ltd

(a) Factors considered by a bank

The factors to be considered are set out below.

The character of the borrower
Before lending money, the bank will need to decide whether the borrower is of good character. This will involve looking at the borrower's past record and conducting a personal interview with the applicant.

If a person is applying for a loan, they will often be credit scored. If a company is making the application, the bank will probably use key ratios to analyse the company's financial position.

The ability to borrow and repay
The bank looks at a business customer's financial performance in order to ascertain their likely future position.

If the owner re-invests profits in the business rather than drawing them all out, it shows that he has some confidence in the success of the business. This makes the bank more likely to lend to the business.

When dealing with a company that is applying for finance, the bank may check whether the company has the authority to borrow the funds it is requesting. The company's articles of association provide this information.

The margin of profits
The bank lends money in order to make money. It needs to ensure that it makes enough of a profit to warrant the risk that it takes by lending.

Most banks have lending policies which require them to charge different interest rates to customers depending on the reason for the borrowing. This is because some types of lending are more risky than others.

Ultimately, it is the bank's discretion to charge whatever interest rate it chooses. For risky ventures, the rate will obviously be higher.

Purpose of the borrowing
The purpose of the borrowing affects not only the interest rate but also the bank's decision as to whether or not to lend in the first place.

A bank will not lend money for an illegal purpose. It will normally lend in order to finance working capital, provided that the company's liquidity position is still manageable.

Lending to finance new business ventures is more risky since many of them fail. The bank will be more cautious in these cases.

Amount of the borrowing
Firstly, the bank will need to make sure that the applicant is not asking for more money than he needs for the purpose specified. If he is, this casts doubt over his ability to repay.

Secondly, the bank needs to be sure that the applicant is asking for enough money. If he is not, the bank may well end up having to lend more in order to safeguard the original loan.

Repayment terms
The bank must not lend money to a person or company who does not have the ability to repay it, with interest, irrespective of any security available for the loan. Security should only be called upon as a last resort if there is a sudden unexpected inability to pay.

A repayment term should be set which is realistic. Overdrafts are repayable on demand and are therefore more risky for the borrower.

Insurance against the possibility of non-payment
When lending large sums of money to an individual or to a company, the bank may well ask for the loan to be secured. This security may take the form of title deeds to property – either property of the company or the individual's house, depending on who is making the application for finance.

A borrower may take out payment protection insurance, so that his repayments are covered even if his financial position deteriorates.

(b) Three characteristics

The three characteristics for security are as follows:

(i) Easy to take
This means that the security should be easy to obtain in the first place, for example, title documents to property.

(ii) Easy to value
The security should have a clearly identifiable value which is either stable or increasing, and which fully covers the lending amount and the margin of profit.

(iii) Easy to realise
The security should ideally be readily available for sale. This ensures that the bank's administrative costs are kept to a minimum. Also, the risk of the security deteriorating between the time of default and the time of sale is minimised.

(c) Three terms

(i) Bullet repayment loan
None of the principal amount lent is repaid until the end of the loan period. The principal is then repaid in one big lump sum.

(ii) Balloon repayment loan
Some of the principal is repaid during the term of the loan. A final substantial payment is then made at maturity.

(iii) Amortising loan (straight repayment loan)
The principal is repaid gradually over the term of the loan, along with the interest payments. Some mortgages are repaid in this way.

				Marks
1	**(a)**	Cash sales		3
		Rental income		1
		Purchases		2
		Permanent staff		1
		Temporary staff		1
		Delivery		1
		Administration		2
		Conference		1
		Ignoring depreciation		1
		Computer system		1
		Net cash flow/op bal/clos bal		2
				16
	(b)	Each motive discussed		2
		Maximum marks		6
	(c)	**(i)**	CDs	
			Negotiable instrument	1
			Transfer of title	1
			Banks and BSs issue	1
			Deposit amount	1
			Repayment length	1
			Obtaining repayment	1
			Attractive interest	1
			Low risk	1
			Useful for short term	1
			Conclusion for Tots Ltd	1
			Max marks	6
		(ii)	Gilts	
			Marketable Gov securities	1
			Face value usually £100	1
			Fixed interest rates	1
			Index-linked	1
			Shorts/mediums/longs	1
			Low risk if hold until repd	1
			Explaining price/int rates rel	1
			Higher if on secondary	1
			Minimum investment	1
			Electronic transfer available	1
			Conclusion re Tots Ltd	1
			Max marks	6
		(iii)	Shares	
			Two types	1
			Ordinary shares:	
			– voting rights	1
			– share in profits	1
			– no right to dividends	1
			– loss of capital	1
			– conclusion	1
			Preference shares:	
			– preferential dividends	1
			– preference on winding up	1
			– lack of participation	1
			– conclusion	1
			Max marks	6

			Marks
	(iv)	Bills of exchange	
		Definition	1
		Two types	1
		Term bill details	1
		Drawee and payee	1
		Main buyers	1
		Making a profit	1
		Risk	1
		Conclusion re Tots Ltd	1
		Max marks	6
		Total marks	**40**
2	**(a)**	Calculation of each cost for yr	0·5
		Max marks	2·5
		Calculation of current assets:	
		Raw materials	0·5
		WIP	4
		Finished goods	2
		Debtors	0·5
			7
		Calculation of current liabs	
		Materials creditor	0·5
		Labour creditor	0·5
		Variable overheads	0·5
		Fixed overheads	0·5
		Other costs	0·5
			2·5
		Working capital required	1
		Presentation	1
			14
	(b)	Definition of offer	1
		Orally/in writing/implied	1
		Withdrawal	1
		Max marks	2
		Definition of acceptance	1
		Orally/in writing/implied	1
		Request for information	1
		Max marks	2
		Definition of consideration	1
		Exchange of promises	1
		Price	1
		Max marks	2
		Total marks	**20**

			Marks
3	(a)	Implementation costs	1
		Training costs	1
		Increased revenues	3
		Decreased costs	1
		Operative costs	1
		Maintenance costs	1
		Ignore depreciation and interest	1
		NPV	1
			10
	(b)	Net cashflows	1
		Cumulative cashflows	1
		Interpretation and result	1
			3
	(c)	Discounted net cashflows	1
		Cumulative cashflows	1
		Interpretation and result	1
			3
	(d)	One year deposit	2
		Two year deposit	2
			4
		Total marks	**20**
4	(a)	Character of borrower	2
		Ability to repay	2
		Margin of profit	2
		Purpose of borrowing	2
		Amount of borrowing	2
		Repayment terms	2
		Insurance	2
			14
	(b)	Each characteristic	1
		Total	3
	(c)	Each explanation	1
		Total	3
		Total marks	**20**