# Introduction to Finance

# 31 May 2016

# Marking Scheme

This marking scheme has been prepared as a **guide only** to markers. This is not a set of model answers, or the exclusive answers to the questions, and there will frequently be alternative responses which will provide a valid answer. Markers are advised that, unless a question specifies that an answer be provided in a particular form, then an answer that is correct (factually or in practical terms) **must** be given the available marks.

If there is doubt as to the correctness of an answer, the relevant NCC Education materials should be the first authority.

**Throughout the marking, please credit any valid alternative point.**

**Where markers award half marks in any part of a question, they should ensure that the total mark recorded for the question is rounded up to a whole mark.**

**Answer any FOUR (4) questions**

**Marks**

## Question 1

**a)** Explain THREE (3) purposes of classifying costs in terms of planning, *decision making* and *control*. **6**
***Award 2 marks per purpose- purpose need not be in form of a question. For:***
***<u>Planning</u>***
***What is the impact of changes in the level of production?***
***What is the cost effect of opening a new retail outlet?***
***What is the cost impact of extending service hours to customers/clients?***
***<u>Decision making</u>***
***Should the business make all components of a product or buy some ready-made?***
***Should the business discontinue loss-making activities?***
***<u>Control</u>***
***How close are product costs to expectations?***
***How much have we spent on marketing compared to budget?***
***Is the value of inventory stated correctly?***

**b)** Identify THREE (3) major types of cost classification. **3**
***Award 1 mark per type identified.***
- ***variable costs & fixed costs***
- ***direct and indirect costs***
- ***product costs and period costs***

***Note to markers- activity and absorption costing is not a suitable answer. By function, by element or by behaviour can be accepted as a recognised type/method.***

i) Outline how costs should be classified to ensure the value of inventory of unsold goods stated correctly. **2**
***Product costs and period costs(1). The unsold inventory should be carrying its share of the product costs (1).***

**c)** Using examples as appropriate define the following concepts.

i) Period costs. **2**
***Period costs are those costs which are treated as expenses in the period in which they are incurred. All marketing, selling and administration costs are treated as period costs.***
***Award 1 mark for the explanation and 1 mark for an example.***

**Marks**

ii) Product costs. **2**

***Product costs (also known as inventoriable costs) are those costs associated with goods or services purchased, or produced, for sale to customers. For a manufacturing company, these costs usually consist of direct materials, direct labour, and manufacturing overheads.***
***Award 1 mark for the explanation and 1 mark for an example.***

iii) Stepped costs. **2**

***A fixed cost that increases in steps.***
***For example, rent storage space until full capacity reached, then expand by renting second storage space.***
***Award 1 mark for the explanation and 1 mark for an example.***

iv) Semi-variable cost. **2**

***A cost which is partly fixed and partly varies with changes in the level of activity over a defined period of time. An example could be maintenance charges where there is a fixed basic charge plus a variable element depending on number of call outs per year.***
***Award 1 mark for the explanation and 1 mark for an example.***

**d)** Cost classification must be relevant to the responsibility level for which costs are reported. Explain with an example the following types of responsibility centres

i) Cost centre. **2**

***In a cost centre the manager is accountable for controllable costs.***

***Examples of cost centres can include: the IT department, quality control department, the accounting department, the manufacturing facility.***

***Award 1 mark for the explanation and 1 mark for an example.***

ii) Profit centre. **2**

***In a profit centre the manager is accountable for elements of both cost and revenue. The revenues could be sales to outside organisations or they could be internal sales to elsewhere in the organisation. For example, an IT department could be turned from a cost centre into a profit centre if it were to be allowed to charge IT users for the services supplied.***

***Award 1 mark for the explanation and 1 mark for an example.***

iii) Investment centre. **2**

***An investment centre is usually distinct from the parent company because costs, revenue and capital expenditure all have to be identified separately. The head of an investment centre will be responsible for costs revenues and capital expenditure. Examples include separate divisions or subsidiary companies.***
***Award 1 mark for the explanation and 1 mark for an example.***

**Total 25 Marks**

 

**Marks**

**Question 2**

**a)** Explain THREE benefits for an organisation from producing a cash flow budget. **9**

***Award 1 mark for identifying a benefit and an additional 2 marks for an explanation. 3 marks maximum per benefit clearly identified and explained. Other valid benefits should be awarded marks.***

***Benefits include:***

- ***Identifies potential shortfalls in cash balances in advance – the cash flow forecast can be thought of as an 'early warning system'. This is the most important reason for a cash flow forecast.***
- ***It helps to ensure that the business can afford to pay suppliers and employees – suppliers who don't get paid will soon stop supplying the business; it is even worse if employees are not paid on time***
- ***It can identify problems with customer payments – preparing the forecast encourages the business to look at how quickly customers are paying their debts.***
- ***As an important discipline of financial planning – the cash flow forecast is an important management process, similar to preparing business budgets***
- ***External stakeholders such as banks may require a regular forecast. Certainly if the business has a bank loan, the bank will want to look at cash flow forecasts at regular intervals***

**b)** John is investing £10,000 to start up a gardening business. The business will commence trading on the 1st January. He expects to gain 1 project per month for the first 6 months of trading; each project will generate £10,000 of sales. Customers will be expected to pay 25% of the price as a deposit with the balance on completion. **16**

Each project is expected to last one month. The main costs associated with the start-up are:

- Equipment: £2,500 (month 1) and £2,500 (month 4)
- A total investment of £5,000 for marketing (£1000 in January and then £500 each month).
- Legal and accounting costs: £1,250 (month 1)
- Project materials: £3,000 per project (it is assumed that suppliers will allow John 30 days to pay for these costs).
- Sub-contracted labour (other tradesmen): £4,000 per month. These will be paid in the month incurred.
- John will pay himself a salary of £1,000 each per month whilst the business is established.
- Other sundry costs of £500 per month have been assumed

Based on the information provided above, set out a cash budget for John for the next 4 months.

 

**Marks**

***Based on the information provided above, set out a cash budget for John for the next 4 months.***

| ***Cash In*** | ***January*** | ***February*** | ***March*** | ***April*** |
|---|---|---|---|---|
| ***Investment*** | ***10,000*** | | | |
| ***Credit sales*** | ***2,500*** | ***10,000*** | ***10,000*** | ***10,000*** |
| | ***12,500*** | ***10,000*** | ***10,000*** | ***10,000*** |
| ***Cash Out*** | | | | |
| ***project materials*** | ***0*** | ***3,000*** | ***3,000*** | ***3,000*** |
| ***sub contract materials*** | ***4,000*** | ***4,000*** | ***4,000*** | ***4,000*** |
| ***Marketing*** | ***1000*** | ***500*** | ***500*** | ***500*** |
| ***Legal & Accounting*** | ***1,250*** | | | |
| ***Equipment*** | ***2,500*** | | | ***2,500*** |
| ***Salaries*** | ***1,000*** | ***1,000*** | ***1,000*** | ***1,000*** |
| ***Other costs*** | ***500*** | ***500*** | ***500*** | ***500*** |
| ***Total Outflows*** | ***10,250*** | ***9,000*** | ***9,000*** | ***11,500*** |
| ***Net cash flow*** | ***2,250*** | ***1,000*** | ***1,000*** | ***-1,500*** |
| ***opening balance*** | ***0*** | ***2,250*** | ***3,250*** | ***4,250*** |
| ***closing balance*** | ***2,250*** | ***3,250*** | ***4,250*** | ***2,750*** |

***Award marks as follows:***

- ***Up to 3 marks for having a structure in a recognised format that shows inflows, outflows and the opening/closing bank balances***
- ***Up to 3 marks for correct cash in calculations- 2 marks 1 error- 1 mark 2 errors 0 marks 3 errors***
- ***Up to 7 marks for correct cash outflows- 6marks 1 error- 4mark 2 errors 3marks 3 errors, 2 marks 4 errors, 1 mark 5 errors, 0 marks 6 errors.***
- ***Up to 3 marks for correct opening closing balances- 2 marks 1 error- 1 mark 2 errors 0 marks 3 errors***

***16 marks for completely correct forecast.***

**Total 25 Marks**

**Marks**

**Question 3**

**a)** Explain with examples the term 'non-current assets'. **5**
***Long-term assets are ones that the company will hold for at least one year. They are held for use in profit generating process, on a continuing basis. They are not for sale in ordinary course of business.***

***Examples:***

- ***Property, plant and equipment, also called tangible non-current (fixed) assets.***
- ***Intangible non-current (fixed) assets, e.g. patents***
- ***Investments held long term.***

***Up to 3 marks for a suitable explanation***
***Up to 2 marks for two examples, 1 mark per example.***

**b)** Define the term depreciation and explain its purpose. **4**
***Depreciation represents the loss of value of a fixed asset over time due to wearing-out, obsolescence etc. from providing goods and services over time.***

***The purpose of accounting depreciation is to spread the cost of a non-current (fixed) asset over its expected useful life. It is a method of allocating cost and it achieves a matching of costs against the related revenues.***

***Award 1 mark per valid point (4 marks maximum).***

i) Explain the TWO (2) major methods of depreciation. **6**
***There are many potential methods, the choice is a matter of organisation policy but usually reflects issues of profit and reporting. Two commonly used methods are:***

- ***Straight-line method***

***The straight line basis of depreciation divides the cost of an asset over its working lifetime by the length of that time***
***In practical terms, it can be calculated as:***
***Cost – residual value (£/$) ÷ Expected working lifetime (years) =Depreciation per year.***

- ***Reducing-balance method***

***Applies a fixed percentage to net book value i.e.:***

***Fixed percentage x NBV (£/$) at beginning of year = Depreciation for year.***

***1 mark per method identified and 2 marks for explanation- (6 marks in total)***

**Marks**

ii) Outline TWO (2) factors that will influence the choice of depreciation method. **4**

***The choice of depreciation method should be based on the expected pattern of usage of the asset. If the usage is evenly spread then the straight line method is appropriate. If the usage is heaviest in the early years then the reducing balance method is the best representation of the economic activity.***

***Country specific matters may lead to differences in matters of detail. In some countries the depreciation expense in the income statement must match that used for the purposes of calculating profit.in the UK there are separate rules in tax law for calculating depreciation and so this has no effect on accounting profit.***

***Award 2 points for any valid factor with explanation (maximum 4)***

iii) ABC company has calculated their 2015 depreciation charge at £2,500. Explain how this transaction impacts upon the income statement and the statement of financial position. **3**

***Award up to 3 marks for an accurate explanation:***

***The depreciation is an operating cost and reduces the operating profit by £2500 (1 mark). The non-current assets are reduced in value by £2500(1) and the owner's interest is reduced by the same quantity.(1)***

iv) Using the accounting equation explain the impact of selling a non-fixed asset with a book value of £5,000 for £2,000 cash. **3**

***Award up to 3 marks for an accurate explanation:***

***The asset is reduced by £5,000 to zero value, (1)the 'cash' asset is increased by £2,000; (1)there is no effect on liabilities; ownership interest is decreased by £3,000(1).***

**Total 25 Marks**

**Marks**

**Question 4**

**a)** A logistics/haulage company was set up on 1 January. In Year 1 a vehicle was purchased for £100,000 with the owner injecting the capital from their savings. Relevant Information:

- The vehicle will be used for 4 years;
- Estimated residual value of £20,000 (second hand).
- During the 1st year cash receipts from sales were £150,000.
- Cash expenses were £60,000 for wages, petrol and running costs.

i) Calculate the annual deprecation using the straight line method. **3**
***Cost – residual value (£/$) ÷ expected working lifetime (years) =Depreciation per year. (1)***

***100,000- 20,000÷4= £20,000 per year.(2)***
***3 marks maximum.***

ii) Produce an income statement for year 1 of the business. **5**
***Income Statement for Year 1***

| | ***£000's*** | |
|---|---|---|
| ***Income*** | ***150*** | ***1 mark*** |
| ***Cash Expenses*** | ***(60)*** | ***1 mark*** |
| ***Depreciation*** | ***(20)*** | ***1 mark*** |
| ***Net Book value*** | ***(80)*** | ***1 mark*** |
| ***Profit for the year*** | ***70*** | ***1 mark*** |

**Marks**

iii) Produce a statement of financial position for the business for end of year 1. **9**

***Statement Of Financial Position Year 1***

| | ***£ 000's*** | |
|---|---|---|
| ***Non-Current Assets*** | | ***1 mark*** |
| ***Vehicle at cost*** | ***150*** | |
| ***Depreciation*** | ***20*** | |
| ***Net Book value*** | ***130*** | ***2 marks*** |
| ***Current assets*** | | ***1 mark*** |
| ***Cash*** | ***90*** | ***1 mark*** |
| ***Total Assets*** | ***220*** | ***1 mark*** |
| | | |
| ***Ownership Interest*** | | ***1 mark*** |
| ***Capital contributed*** | ***150*** | |
| ***Profit for the Year*** | ***70*** | |
| | ***220*** | ***2 marks*** |

**Marks**

**b)** There are several users of financial information. For each of the following user groups, outline their information needs:

i) Management **2**
***Concerned with running the business, using assets to generate profit. Need information on performance and position.***

ii) Owners as investors **2**
***Owners as investors. Is the return from the investment, at present and in the future, adequate? Make decisions about buying, holding and selling shares. Interested in the entities financial performance and financial position.***

iii) Employees **2**
***Ability to pay wages and continuity of employment.***
***Issues associated with the working environment.***

iv) Public Interest **2**
***Impact on local economy***
***Environmental concerns***

**Total 25 Marks**

**Marks**

**Question 5**

**a)** Explain the following accounting terms:

i) Contribution. **2**

***An explanation should be similar to:***

***Sales less the variable cost of sales- used in CVP/breakeven analysis***

ii) *Sunk cost*. **2**

***A explanation should be similar to:***

***"Costs that have been irreversibly incurred or committed prior to a decision point ..." CIMA (2000, p.39)***

iii) Relevant cost:. **2**

***An explanation should be similar to:***

***"... those future costs which will be affected by a decision to be taken. Non-relevant costs will not be affected by the decision." Weetman (2006, p.549)***

**Marks**

**b)** There are several differences between management accounting and financial accounting. Complete the following table with a word or very short sentence in each box. The first row has been completed as an example. **12**

| | **Financial Accounting** | **Management Accounting** |
|---|---|---|
| Nature of the reports produced | *General purpose* | *Very specific* |
| Users | | |
| Level of detail | | |
| Regulations | | |
| Reporting interval | | |
| Time orientation/ focus | | |
| Range and quality of information | | |

| | ***Financial Accounting*** | ***Management Accounting*** |
|---|---|---|
| *Nature of the reports produced* | *General purpose* | *Very specific* |
| *Users* | *External* | *Internal* |
| *Level of detail* | *Broad overview and often aggregated* | *Considerable detail for particular decisions* |
| *Regulations* | *Subject to accounting regulations* | *No regulations* |
| *Reporting interval* | *Half yearly or annually* | *As required- daily, weekly or monthly* |
| *Time orientation* | *Past* | *Present & future* |
| *Range and quality of information* | *Tend to focus on information that can be quantified in monetary terms, Standard format.* | *Reports may be less objective and verifiable. Flexible format* |

***1 mark per correct difference (does not have to be word specific) (12 marks total).***

**c)** Map Ltd manufacture a standard navigation system which it sells to a large on-line retailer for £30.Next year the business has forecast sales of 20,000 units.

| **Manufacturing Costs** | |
|---|---|
| Variable materials | £10 per system |
| Variable labour | £6 per system |
| Other variable costs | £4 per system |
| Fixed production overhead costs | £70,000 per year |
| **Administration & Selling Costs** | |
| Fixed | £70,000 per year |

i) Calculate the breakeven point for next year both in revenue and in units. Show your workings. **5**

***Breakeven= Fixed costs ÷ Contribution per unit (1 mark)***
***Contribution= Selling price - Variable Costs (1 mark)***

***Breakeven in units =*** $\boldsymbol{\dfrac{70{,}000 + 70{,}000}{30 - (10+6+4)}}$ ***= (1) 140,000/10= 14,000 units(1)***

***Breakeven revenue = 14,000 X £30= £42,000 (1)***

 

**Marks**

ii) Define and calculate the margin of safety for MAP Ltd. **2**

***The margin of safety is the extent to which the planned volume of output or sales lies above the Breakeven point.(1)***

***In this case 20,000- 14,000 = 6000 units.(1)***

**Total 25 Marks**

# End of paper

## Learning Outcomes matrix

| Question | Learning Outcomes assessed | Marker can differentiate between varying levels of achievement |
|---|---|---|
| 1 | 3 | Yes |
| 2 | 4 | Yes |
| 3 | 2 | Yes |
| 4 | 2 &1 | Yes |
| 5 | 1& 4 | Yes |

## Grade descriptors

| Learning Outcome | Pass | Merit | Distinction |
|---|---|---|---|
| Analyse the use of accounting in organisations | Demonstrate adequate ability to analyse | Demonstrate ability to provide detailed and coherent analysis | Demonstrate ability to provide comprehensive, lucid analysis |
| Prepare and analyse financial statements | Demonstrate adequate ability to analyse | Demonstrate ability to provide detailed and coherent analysis | Demonstrate ability to provide comprehensive, lucid analysis |
| Examine the use of costs in organisations | Provide examination of the subject with some suitable examples and references | Provide detailed examination of the subject with adequate use of appropriate references and examples | Provide consistently critical and detailed examination of the subject with innovative use of highly appropriate references |
| Examine how accounting is used to support decision-making | Provide examination of the subject with some suitable examples and references | Provide detailed examination of the subject with adequate use of appropriate references and examples | Provide consistently critical and detailed examination of the subject with innovative use of highly appropriate references |