3(a) **Using the data in Table 1.3, calculate the payback period for PPP's proposed new machine.**

Definition of payback: the amount of time it takes for the initial investment cost to be recovered (1 if no valid calculation)
(1.9) + 0.5 + 0.6 + 0.8 = 0 payback is 3 years or 36 months (2)
0.5 + 0.6 + 0.8 = 1.9 (1)

Correct units needed for full marks – years or months.

3(b) **Using the data in Table 1.3, calculate the accounting rate of return (ARR) for PPP's proposed new machine.**

ARR = average annual profit / average investment × 100 (1 if no valid calculation)

ARR = 0.2 / 0.95 × 100 = 21.05% or 21.1% or 21% (2)

Use of 'old' formula 0.2 / 1.9 × 100 = 10.53% (1)

Correct units required for full marks – %

3(c) **Evaluate whether PPP should invest in the new machine.**

Level	AO1 Knowledge and understanding 2 marks	AO2 Application 2 marks	AO3 Analysis 2 marks	AO4 Evaluation 6 marks
3				**5–6 marks** **Developed evaluation in context** • A developed judgement/conclusion is made in the business context. • Developed evaluative comments which balance some key arguments in the business context.
2	**2 marks** **Developed knowledge** of relevant key term(s) and/or factor(s) is used to answer the question.	**2 marks** **Developed application** of relevant point(s) to the business context.	**2 marks** **Developed analysis** that identifies connections between causes, impacts and/or consequences.	**3–4 marks** **Developed evaluation** • A developed judgement/conclusion is made. • Developed evaluative comments which balance some key arguments.
1	**1 mark** **Limited knowledge** of relevant key term(s) and/or factor(s) is used to answer the question.	**1 mark** **Limited application** of relevant point(s) to the business context.	**1 mark** **Limited analysis** that identifies connections between causes, impacts and/or consequences.	**1–2 marks** **Limited evaluation** • A judgement/conclusion is made with limited supporting comment/evidence. • An attempt is made to balance the arguments.
0	**0 marks** No creditable response.	**0 marks** No creditable response.	**0 marks** No creditable response.	**0 marks** No creditable response.

3(c) Responses may include:

AO1 Knowledge and understanding
Limited knowledge K *will be demonstrated through knowledge of one factor in investment decision / knowledge of impacts of process innovation.*
Developed knowledge K + K + *will be demonstrated through knowledge of two factors in the investment decision / impacts of process innovation.*

Knowledge of process innovation and its impacts
Definition of process innovation: the move to new methods of production, in this case computer-controlled automation.
Less labour required.
Knowledge of factors in decision
- Investment cost.
- Availability of finance.
- Impact on employees.
- ARR and Payback results.
- Technical economies of scale possible.
- Reduction in average cost of production.
- Impact on quality.

AO2 Application
Limited application, APP *applies knowledge to PPP once.*
Developed application, APP + APP *applies knowledge to PPP twice.*

- Payback of 3 years – within 4 years of estimated life.
- Return of $800 000 over 4 year period.
- ARR of 21.05%
- Cost of machine $1 900 000
- NCL are $6 million and gearing is 45%, total CE is therefore $13.3 million
- Extra borrowing of $1.9 m would make gearing 7.9 / 15.2 = 51.97%
- Pies have a shelf-life, therefore over-stocking inadvisable

3(c)	**AO3 Analysis** *Limited analysis* AN *– candidate shows one link in the chain of analysis.* *Developed analysis* L2 AN *– candidate shows two or more links in the chain of analysis.* • Machine is costly, but the relatively high gearing of PPP increases risk of further borrowir AN causing cash flow problems for PPP L2 AN especially if sales fail to increase at the same rate as capacity increase. • Employee training to deal with computer automated system will result in increased cos AN , but PPP has a reputation for good employee training, which could be boosted by thi L2 AN • Automation leads to increased efficiency AN and therefore eventually increased prof L2 AN . • Introducing automation may cause disruption to operations in the short-term reducing output whilst it is install AN possible damage to reputation if orders are not fulfilled resulting in lower sale L2 AN • Automation will help PPP fulfil customer orders more quickly resulting in customer satisfactio AN and therefore an increase in sales L2 AN • Automation may result in a reduction in the number of employees engaged in production which will reduce operating costs AN but this will also result in redundancy payments being made L2 AN • If automation leads to excess stocks, waste may increase AN , which could lead to increased production cost L2 AN • Work may become more boring for employees resulting in a reduction in motivation and therefore an increase in labour turnover AN increasing costs L2 AN

3(c)	**AO4 Evaluation** *Limited evaluation* EVAL *– limited supported judgement and/or a weak attempt at evaluative comment* *Developed evaluation* L2 EVAL *– supported judgement and/or reasonable evaluative comment* *Developed evaluation in contex* L3 EVAL *– supported judgement in context and/or reasonable evaluative comment in context.* • A judgement about whether to invest in automation/process innovation. • Elements that the evaluation/judgement might depend on: If automation is used, then success greatly depends on increased demand. How flexible might the machine be in changing from one type of pie to another? How well does automation fit with the 'social objectives' of PPP's employment practices? How important might the 'handmade' aspect of PPP's pies be in marketing? • Other factors to consider e.g. NPV as this considers time value of money. Depends on availability of finance linked to relatively high gearing and interest rate. How long will it take to install the automated system? Will specialist IT employees be required and how expensive is that? Opportunity cost of this project. • Weighing up of the factors and their relative influence on PPP's decision whether to invest in the new machine Accept all valid responses

1 **Analyse <u>one</u> advantage and <u>one</u> disadvantage to KTJ of delegation.**

Level	AO1 Knowledge and understanding 2 marks	AO2 Application 2 marks	AO3 Analysis 4 marks
2			**3–4 marks Developed analysis** • Developed analysis that identifies connections between causes, impacts and/or consequences of **two** points. • Developed analysis that identifies connections between causes, impacts and/or consequences of **one** point.
1	**1–2 marks** • Knowledge of **two** relevant points is used to answer the question. • Knowledge of **one** relevant point is used to answer the question.	**1–2 marks** • Application of **two** relevant points to a business context. • Application of **one** relevant point to a business context.	**1–2 marks Limited analysis** • Limited analysis that identifies connections between causes, impacts and/or consequences of **two** points. • Limited analysis that identifies connections between causes, impacts and/or consequences of **one** point.
0	**0 marks** No creditable response.	**0 marks** No creditable response.	**0 marks** No creditable response.

Note:
- If more than one advantage and/or more than one disadvantage is identified reward the best advantage and best disadvantage.
- L2AN (3 marks) is possible for just one point made.
- All annotation (K APP AN L2) should be in the left margin.

1 **Responses may include**

AO1 Knowledge and understanding
Definition of delegation (max K 1 mark) is passing authority down the organisational hierarchy.
Note: Do not reward 'manager giving a task to a subordinate'. Definition needs to include some reference to authority or responsibility.

Knowledge of advantage to KTJ of delegation (max K 1 mark)
- Motivational impact on employees.
- Enables senior management to focus on strategic issues.
- Preparation for promotion.
- Improves quality and speed of decision making.

Knowledge of disadvantage to KTJ of delegation (max K 1 mark)
- Poor decision making possible.
- Cost of ensuring employees are capable of accepting authority.
- Negative impact on consistency of decision making.
- May demotivate employees who do not want any further responsibility.

AO2 Application
Limited application, APP *applies knowledge to KTJ once. Developed applicatio* APP APP *applies knowledge to KTJ twice. Max one* APP *for application for the first element and max or* APP *for application for the second element.*
Application is making use of relevant case information not just repeating it.

- KTJ has won awards for investment in employee training.
- KTJ's training investment supports effective delegation.
- KTJ has a flat hierarchical structure which supports use of delegation.
- Using examples from the case of delegation in action:
  - Research into use of plastic bottles.
  - Junior market analyst given task of recommending an important strategic change.
  - US marketing manager given responsibility for devising and implementing new marketing plan.

1

AO2 Analysis
Limited analysis AN *– candidate shows one link in the chain of analysis.*
Developed analysis L2 AN *– candidate shows two or more links in the chain of analysis.*

Chains of reasoning highlighting likely impacts of delegation:
- Delegation will give employees experience of taking responsibility and therefore prepare them for promot AN resulting in more effective senior managers in the futur L2 AN
- Employees need to be equipped with the skills necessary for taking authority and therefore KTJ must invest in
- training AN thus increasing costs and potentially reducing profit L2 AN
- Delegation free up senior management time for strategic growth decisions resulting in more effective management of the long term growth of the busines AN
- There is a risk of inconsistent decision-making across markets affecting the brand image of KTJ and thus resulting in a loss of revenue AN

Accept all valid responses.

2

Analyse two impacts on KTJ of its commitment towards corporate social responsibility (CSR).

Level	AO1 Knowledge and understanding 2 marks	AO2 Application 2 marks	AO3 Analysis 4 marks
2			**3–4 marks Developed analysis** • Developed analysis that identifies connections between causes, impacts and/or consequences of **two** points. • Developed analysis that identifies connections between causes, impacts and/or consequences of **one** point.
1	**1–2 marks** • Knowledge of **two** relevant points is used to answer the question. • Knowledge of **one** relevant point is used to answer the question.	**1–2 marks** • Application of **two** relevant points to a business context. • Application of **one** relevant point to a business context.	**1–2 marks Limited analysis** • Limited analysis that identifies connections between causes, impacts and/or consequences of **two** points. • Limited analysis that identifies connections between causes, impacts and/or consequences of **one** point.
0	**0 marks** No creditable response.	**0 marks** No creditable response.	**0 marks** No creditable response.

- If more than two impacts are identified reward the best two impacts.
- L2AN (3 marks) is possible for just one point made.
- All annotation (K APP AN L2) should be in the left margin.

2

Responses may include

AO1 Knowledge and understanding

Definition of CSR (max K 1 mark)
- When businesses consider the interests of society by taking responsibility for the impact of their decisions and activities on stakeholders.
- Benefits of CSR (max K 2 marks)
- Can enhance brand image.
- Increased sales.
- Competitive advantage.
- Greater control over prices – make demand more price inelastic. Limitations of CSR (max K 2 marks)
- Cost.
- Impact on cash flow.

AO2 Application
Limited application, APP *applies knowledge to KTJ once. Developed applicatio* APP APP *applies knowledge to KTJ twice.*
Max one APP *for application for the first method and max or* APP *for application for the second method.*
Application is making use of relevant case information not just repeating it.

- Research into plastic bottles to reduce environmental impact of packaging.
- Using seasonal fruits in juices with no added sugar.
- Purchasing fruit from local farm cooperatives.
- Need to audit the farming methods of suppliers.
- 'Soft' approach to managing human resources.
- KTJ markets juices as premium products.
- Seasonal local fruit reinforces KTJ's sustainability strategy.
- Linking to mission statement

2

AO3 Analysis
Limited analysis AN *– candidate shows one link in the chain of analysis.*
Developed analysis L2 AN *– candidate shows two or more links in the chain of analysis.*

- Effective CSR can enhance the branding of KTJ resulting in more loyal custome AN and therefore increase profit L2 AN
- Having to change packaging of bottles will increase costs making juices more expensive AN reducing competitiveness against other rival brands leading to a reduction in sales L2 AN
- Purchasing fruit from local farm cooperatives may increase costs making juices more expensive AN which will decrease profits L2 AN
- KTJ will need to spend more money on auditing its activities which will increase cost AN
- Commitment to sustainability can reduce price elasticity of demand and therefore enable KTJ to increase prices AN and therefore increase profi L2 AN

Accept all valid responses.

3(a)

Using the data in Table 1.2, calculate the payback of the country C location.

Responses may include

Payback is in the fifth year (1)

Year	Net cashflow ($m)	Cumulative Cashflow
0	(10)	(10)
1	0.5	(9.5)
2	1.5	(8)
3	3	(5)
4	4	(1)
5	4	3

Payback is 4 years 3 months OR 4.25 years (2) Units required for full marks (Years/months)
Common error
5 years 3 months (1 mark if with evidence of appropriate working e.g. attempt at cumulative cashflow)

3(b)

Using the data in Table 1.3, calculate the accounting rate of return (ARR) of the country D location.

Responses may include

ARR = Average profit / average investment × 100 (1)
= 2.8 / 12 × 100 = 23.3% (2)
Answer of 23.3 or $23.3 (1 mark only)
Using alternative ARR equation: 2.8 / 20 × 100 = 14% (1)

3(c)

Evaluate which location KTJ should choose for its new factory.

Level	AO1 Knowledge and understanding 2 marks	AO2 Application 2 marks	AO3 Analysis 2 marks	AO4 Evaluation 6 marks
3				**5–6 marks** **Developed evaluation in context** • A developed judgement/conclusion is made in the business context. • Developed evaluative comments which balance some key arguments in the business context.
2	**2 marks Developed knowledge** of relevant key term(s) and/or factor(s) is used to answer the question.	**2 marks Developed application** of relevant point(s) to the business context.	**2 marks Developed analysis** that identifies connections between causes, impacts and/or consequences.	**3–4 marks** **Developed evaluation** • A developed judgement/conclusion is made. • Developed evaluative comments which balance some key arguments.
1	**1 mark** **Limited knowledge** of relevant key term(s) and/or factor(s) is used to answer the question.	**1 mark** **Limited application** of relevant point(s) to the business context.	**1 mark** **Limited analysis** that identifies connections between causes, impacts and/or consequences.	**1–2 marks** **Limited evaluation** • A judgement/conclusion is made with limited supporting comment/evidence. • An attempt is made to balance the arguments.
0	**0 marks** No creditable response.	**0 marks** No creditable response.	**0 marks** No creditable response.	**0 marks** No creditable response.

3(c)

Responses may include:
AO1 Knowledge and understanding

Definition of payback / ARR / NPV (max 1 mark for definitions of any or all of these terms)

Factors in the decision
- Shorter payback.
- Higher ARR.
- Capital cost.
- Revenue expenditure required.
- Quality of infrastructure.
- Access to labour and utilities.
- Political/legal environment.
- Quantitative and qualitative factors.

AO2 Application
Limited application, APP *applies knowledge to KTJ once. Developed applicatio* APP APP *applies knowledge to KTJ twice.*
Application is making use of relevant case information not just repeating it.

Using data from Tables 1.1, 1.2 and 1.3
- Country D location is double the capital cost
- Country C has quicker payback by 9 months
- Country C has higher ARR by 1.7% points
- Country C may have lower wages
- Easier to export from Country D
- Bigger potential market in Country D
- Competition between farmers in country C
- Economies of scale in country D farming of fruit
- Mission statement regarding sustainability and ethical relationships with farmers.

3(c)

AO3 Analysis
Limited analysis AN *– candidate shows one link in the chain of analysis.*
Developed analysis L2 AN *– candidate shows two or more links in the chain of analysis or balance of argument.*

- Country D is a middle-income country and therefore households will have a higher incom AN this will result in higher sales of juices L2 AN
- KTJ juices are a premium product so will be relatively expensiv AN so juices may be less affordable in country C
- leading to lower sales L2 AN
- Seaport in country D will facilitate exports of KTJ's juice resulting in higher sales AN and may therefore increase profit L2 AN
- Reliable infrastructure in D could reduce delays and protect brand image resulting in higher sal AN .
- Lower fixed costs in C could improve cash flow reducing risk of liquidity problems for K AN
- Economies of scale in D may reduce per-unit costs and therefore increase pro AN .

AO4 Evaluation
Limited evaluation EVAL *– limited supported judgement and/or a weak attempt at evaluative comment. Developed evaluation* L2 EVAL *– supported judgement and/or reasonable evaluative comment.*
Developed evaluation in context L3 EVAL *– supported judgement in context and/or reasonable evaluative comment in context.*
- Supported judgement as to whether country C or D is better.
- Factors that decision might depend on:
  – Ability of KTJ to raise finance for more expensive option.
  – Willingness to take risk – electricity supply in country C and additional capital cost in D
  – Fit with KTJ's CSR – small farms rather than large scale fruit production
  – Importance of profit. C is marginally more profitable that D.
  – Depends on KTJ's tolerance for operational risk versus willingness to commit higher capital expenditure
  – Country D offers greater stability and scalability but requires larger upfront investment
  – Country C better supports CSR positioning but may compromise operational reliability
  – A phased investment strategy could balance initial risk with future growth potential
  – Decision may be influenced by external factors such as currency movements, access to finance and market growth trends
- Questioning whether Gudaf has the necessary experience / skill to conduct this investment appraisal.

Accept all valid responses.