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POTENTIAL

Level 1/2 Vocational Award in

CONSTRUCTION AND THE BUILT ENVIRONMENT

(Technical Award)

Teaching from 2022 | Award from 2024

SAMPLE ASSESSMENT MATERIALS - UNIT 1

WJEC Level 1/2 Vocational Award in Construction and the Built Environment (Technical Award)

SAMPLE ASSESSMENT MATERIALS

Unit 1

For teaching from 2022
For award from 2024

Contents

Surname	Centre Number	Candidate Number
Other Names		4

WJEC LEVEL 1/2 VOCATIONAL AWARD
Construction and the Built Environment

UNIT 1

Introduction to the Built Environment

1 hour 30 minutes

SAMPLE ASSESSMENT MATERIALS

Paper version of on-screen assessment

For the purpose of Submission, this draft sample assessment by examination is provided in paper-based form.

The live assessments will be provided onscreen only.

INSTRUCTIONS FOR CANDIDATES

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

You may use a pencil for graphs and diagrams only.

Answer all questions.

Write your name, centre number and candidate number in the spaces at the top of this page.

Write your answers in the spaces provided in this booklet. If you run out of space, use the additional page(s) at the back of the booklet, taking care to number the question(s) correctly.

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	6	
2.	12	
3.	8	
4.	8	
5.	6	
6.	10	
7	10	
8	10	
9	10	
Total	80	

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part question.

The total number of marks available is 80.

You are reminded of the need for clear and accurate written communication.

*Answer **all** questions.*

Examiner only

1. The role of a civil engineer includes the design of roads and bridges.

   (a) Identify **two** other civil engineering products that form part of the built environment. [2]

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   (b) Name **two** other professional roles associated with the built environment sector. [2]

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(c) Choose one of the professional roles named in (b). [2]

Examiner only

Identify **two** responsibilities of that role.

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Examiner only

2. 'Operation and maintenance', and 'disposal, re-use or re-cycling' are two stages of the built environment life cycle.

(a) Name **two** other stages of the built environment life cycle. [2]

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(b) Describe **two** tasks that will be required during the operation stage of the built environment life cycle. [4]

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Examiner only

(c) Give **two** benefits to be gained from the reuse or recycling of materials at the end of the built environment life cycle. [2]

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(d) The built environment life cycle will result in a brownfield site. [4]
Describe **two** benefits of re-developing a brownfield site.

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Examiner only

3. Residential dwellings are used as places of habitation.

One function of the superstructure of a low-rise residential dwelling is to provide the occupants with protection from the weather.

(a) State **four** other functions of the superstructure of a low-rise residential dwelling. [4]

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(b) Identify **two** electrical services that are required in a residential dwelling. [2]

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(c) Identify **two** services required in a residential dwelling that would be installed by a plumber. [2]

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Examiner only

4. A new dwelling is to be constructed with load bearing masonry walls and a pitched roof.

(a) Suggest suitable materials for each of these elements of the new dwelling.

(i) Cladding of external walls. [1]

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(ii) Forming openings in external walls. [1]

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(iii) Roof structure. [1]

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(iv) Internal partitions. [1]

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(b) Identify **two** tasks that will be carried out by a plasterer to finish the internal elements of the new dwelling. [2]

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Examiner only

(c) Identify **two** alternatives to the use of load bearing masonry walls. [2]

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5. A farmer wishes to build a new dwelling on his land that will be south facing and will have a pitched roof. The farm is situated in a part of the country that experiences a range of weather conditions throughout the year. The farmer would like to use renewable technologies to generate electricity for the new dwelling.

(a) Describe a system that uses a renewable source of energy to provide hot water. [2]

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(b) Propose a system that could be installed at the new dwelling to use a renewable source of energy to generate electricity. [2]

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(c) Explain why the new dwelling is to be connected to the national electrical grid. [2]

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Examiner only

6. A new community centre is to be constructed in a rural location on the outskirts of a country town. The site for the community centre lies within a conservation area.

The community centre is to be a framed single storey building, designed to suit the location and to make use of sustainable materials.

(a) Propose suitable sustainable materials for **three** different elements of the new building. [6]

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(b) Propose **two** measures that could be taken to preserve the natural environment during the construction of the community centre. [4]

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Examiner only

7. The preservation of the historic built environment requires a system of planned maintenance.

(a) Describe the purpose of planned maintenance. [2]

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(b) One aim of this maintenance work is to preserve the history and character of historic buildings. [4]

Describe **two** methods of carrying out maintenance work on historic buildings.

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(c) Give an example of the type of traditional work carried out by **two** trades when maintaining historic buildings. [4]

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Examiner only

8. The refurbishment of an existing four-story hotel is to involve complete re-roofing and the repair of chimneys. The hotel is located on an exposed site on the sea front.

The project requires a health and safety risk assessment.

(a) Suggest **two** specific hazards to workers that should be included in the risk assessment. [2]

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(b) Propose **two** measures to reduce the risks to health and safety to workers arising from the hazards proposed for the risk assessment. [4]

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(c) Other hazards arising from the busy street location of the hotel have been identified. [4]

Propose **two** control measures that will reduce health and safety risks arising from the work to members of the public.

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Examiner only

9. A project for the construction of a new main line rail link is being considered. The project would link several major cities and be an infrastructure project of national importance.

The project will produce several benefits, but these will need to be weighed against associated drawbacks.

Assess the benefits and associated drawbacks likely to arise from a major infrastructure project of this nature. [10]

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END OF PAPER

MARK SCHEME

Guidance for examiners

Positive marking

It should be remembered that candidates are writing under examination conditions and credit should be given for what the candidate writes, rather than adopting the approach of penalising him/her for any omissions. It should be possible for a very good response to achieve full marks and a very poor one to achieve zero marks. Marks should not be deducted for a less than perfect answer if it satisfies the criteria of the mark scheme.

For questions that are objective or points-based, the mark scheme should be applied precisely. Marks should be awarded as indicated and no further subdivision made.

Mark schemes often list points which may be included in candidates' answers. The list is not exhaustive. The inclusion of *'Credit any other valid response.*' (or similar instruction) within mark schemes allows for the possible variation in candidates' responses. Credit should be given according to the accuracy and relevance of candidates' answers.

Appropriate terminology is reflected in exemplar responses in mark schemes. However, unless there is a specific requirement within a question, candidates may be awarded marks where the answer is accurate but expressed in their own words.

Banded mark schemes

For band marked questions, mark schemes are in two parts: the indicative content and the assessment grid.

The indicative content suggests the range of points and issues which may be included in candidates' answers. It can be used to assess the quality of the candidate's response. As noted above, indicative content is not intended to be exhaustive and candidates do not have to include all the indicative content to reach the highest level of the mark scheme.

However, to reach the highest level of the mark scheme a candidate must meet the requirements of the highest mark band. Where a response is not creditworthy, that is, it contains nothing of any significance to the mark scheme, or where no response has been provided, no marks should be awarded.

The marking of banded mark questions should always be positive. This means that, for each candidate's response, marks are accumulated for the demonstration of relevant skills, knowledge and understanding; they are not deducted from a maximum on the basis of errors or omissions.

Examiners should first read and annotate the candidate's answer to pick out the evidence that is being assessed in that question. The mark scheme can then be applied. This is done as a two-stage process.

Stage 1 – Deciding on the band

Beginning at the lowest band, examiners should look at the candidate's answer and check whether it matches the descriptors for that band. If the descriptors at the lowest band are satisfied, examiners should move up to the next band and repeat this process for each band until the descriptors match the answer.

If an answer covers different aspects of different bands within the mark scheme, a 'best fit' approach should be adopted to decide on the band and then the candidate's response should be used to decide on the mark within the band. For instance, if a response is mainly in band 2 but with a limited amount of band 3 content, the answer would be placed in band 2, but the mark awarded would be close to the top of band 2 as a result of the band 3 content.

Examiners should not seek to mark candidates down as a result of small omissions in minor areas of an answer.

Stage 2 – Deciding on the mark

During standardising (the marking conference), detailed advice from the Principal Examiner on the qualities of each mark band will be given. Examiners will then receive examples of answers in each mark band that have been awarded a mark by the Principal Examiner. Examiners should mark the examples and compare their marks with those of the Principal Examiner.

When marking, examiners can use these examples to decide whether a candidate's response is of a superior, inferior, or comparable standard to the example. Examiners are reminded of the need to revisit the answer as they apply the mark scheme in order to confirm that the band and the mark allocated is appropriate to the response provided.

Differentiation within our mark schemes

The following grid demonstrates our starting point to formulating our mark schemes. These are used in order to ensure differentiation between our bands. Mark schemes will use this table as the basis for the assessment of each question but will reflect the specific demands of the question.

Band Descriptor	AO1	AO2	AO3
Excellent	• Aware of a wide range of detailed and accurate knowledge. • Demonstrates fully developed understanding that shows relevance to the demands of the question. • Effective and precise use of terminology.	• Knowledge and understanding is consistently applied to the context of the question/task. • Practical skills are consistently and effectively applied and are of a high standard. • Is able to form a fully developed and thorough interpretation that is fully accurate.	• Analysis and evaluation skills are used in a highly effective way. • Evidence is selected to construct an effective and balanced argument. • Detailed and substantiated evaluation that offers secure judgements leading to rational conclusions.
Very Good	• Has a range of detailed and accurate knowledge. • Demonstrates well developed understanding that is relevant to the demands of the question. • Precise use of terminology.	• Knowledge and understanding is applied to the context of the question/task. • Practical skills are effectively applied and are of a high to medium standard. • Is able to form a developed interpretation that is mostly accurate.	• Analysis and evaluation skills are used in an effective way. • Evidence is selected to construct a developed argument, that may not be presented in equal measure. • Detailed evaluation that offers generally secure judgements, with some link between rational conclusions and evidence.
Good			
Satisfactory	• Includes accurate knowledge. • Demonstrates sound understanding that is relevant to the demands of the question/task • Generally precise use of terminology.	• Knowledge and understanding is mainly applied to the context of the question/task. • Practical skills are appropriately applied and are of a medium standard. • Is able to form a sound interpretation that is generally accurate.	• Analysis and evaluation skills are used in an appropriate and sound way. • Evidence is selected to construct a sound argument OR • Evidence is selected to construct a detailed one-sided argument. • Evaluation that offers some judgements, with some link between conclusions and evidence.

Basic	• Shows some accurate knowledge. • Demonstrates partial understanding that is relevant to the demands of the question. • Some use of appropriate terminology.	• Knowledge and understanding is partially applied to the context of the question/task. • Practical skills are of a medium to low-level standard. • Is able to form some interpretation that shows some accuracy.	• Analysis and evaluation skills are used in a suitable way with a sound level of competence but may lack precision. • Evidence is selected to construct a one-sided argument • Evaluation that offers generalised judgements and conclusions, with minimal use of evidence.
Limited	• Limited knowledge with some relevance to the topic or question. • Little or no development seen. • Very little or no use of terminology.	• Knowledge and understanding is applied in a minimal manner to the context of the question/task. • Practical skills are of a low-level standard. • Can only form a simple interpretation, if at all, with very limited accuracy.	• Analysis and evaluation skills are used with limited competence. • Unsupported evaluation that offers simple or no judgements/conclusions.

When you look at each of our mark schemes, each band has a sequence of performance descriptors. The descriptors work like a ladder: from a bottom rung, to a top. The lower level band 'Limited' is the simplest descriptor in terms of candidates' performance. The descriptors progress through the grid to the more challenging aspect of that assessment objective. It's important to note that not all questions will use every bullet point listed in the table above, however candidates should demonstrate **all of the requirements** that are included in the published mark schemes in order to achieve full marks at a particular level. If a candidate gets full marks at a particular level, markers should see whether they're also demonstrating any of the requirements from the next level up. Often candidates will achieve some of the descriptors at one level, but not all of them. In this case, apply a best fit principle.

Further information on how the mark schemes for our Vocational Awards have been constructed, including information on the use of the mark bands for Excellent, Very Good and Good can be found in the Vocational Awards Administration Guide.

Question		Answer	AO1	AO2	AO3	Total Mark
1.	*The role of a civil engineer includes the design of roads and bridges.*					
	(a)	*Identify **two** other civil engineering products that form part of the built environment.*	2			2
		Award one mark for each correct civil engineering product, to a maximum of **two**, for example: • railways • tunnels • water supply and sewerage systems • electrical grids • telecommunications. Credit any other valid response.				
	(b)	*Name **two** other professional roles associated with the built environment sector.*	2			2
		Award one mark for each correct professional role, to a maximum of **two**, for example: • designer/architect • surveyor • contracts manager and site manager • quantity surveyor. Credit any other valid response.				
	(c)	*Choose one of the professional roles named in (b).* *Identify **two** responsibilities of that role.*	2			2
		Award one mark for each correct responsibility identified of a role that has been identified in (b), to a maximum of **two:** Designer/architect: • creates new buildings and/or renovations or changes existing buildings • produces designs to meet client requirements along with regulations, legislation and environmental requirements • produces detailed drawings for the contractor • manages the post design stages of the project for the client. Contracts Manager and/or Site Manager: • managing the progress of the site • coordinating construction site activities • undertaking site meetings • organising resources of labour, plant and materials • health and safety on site.				

Question		Answer	AO1	AO2	AO3	Total Mark
		Surveyor: • surveys land, measuring existing features of the natural and built environment • sets out construction works in accordance with the drawings and specification • produces built data and drawings for architects and structural engineers. Quantity surveyor: • is responsible for the financial management of a project • makes payment to subcontractors and suppliers • produces a final account at the end of a project • is responsible for the control of budgets and control of cost. Credit any other valid response.				

Question		Answer	AO1	AO2	AO3	Total Mark
2.		*'Operation and maintenance', and 'disposal, re-use or re-cycling' are two stages of the built environment life cycle.*				
	(a)	*Name **two** other stages of the built environment life cycle.*	2			2
		Award one mark for each correct stage, to a maximum of **two:** • raw material extraction • manufacturing • construction • demolition.				
	(b)	*Describe **two** tasks that will be required during the operation stage of the built environment life cycle.*	4			4
		Award **one** mark for each basic description of a task (up to a maximum of two tasks), for example: • controlling heating, cooling, and lighting systems • provision of security services • provision of cleaning and ancillary services • organisation of building maintenance • provision of evacuation procedures. Award **two marks** for a more developed description of a task (up to a maximum of two tasks), for example: • controlling and monitoring of heating, cooling, and lighting systems to maintain comfortable working conditions • provision of security services to control access and protect occupants from unauthorised visitors • provision of cleaning and ancillary services to maintain hygiene and manage waste re-cycling/disposal • organisation of building maintenance and subsequent updating of building operation and maintenance manual • supervision of testing and evacuation procedures to ensure compliance with health and safety procedures. Credit any other valid response.				

Question		Answer	AO1	AO2	AO3	Total Mark
	(c)	*Give **two** benefits to be gained from the reuse or recycling of materials at the end of the built environment life cycle.*	2			2
		Award **one** mark for each correct benefit (to a maximum of **two)** for example: • preservation of natural resources • creation of jobs • reduction in pollution. Credit any other valid response.				
	(d)	*The built environment life cycle will result in a brownfield site.* *Describe **two** benefits of re-developing a brownfield site.*	4			4
		Award **one** mark for a basic description of a benefit (to a maximum of **two** benefits), for example: • removal of eyesores • removal of health hazards • some infrastructure and services may already be available onsite • principle of development already established. Award **two** marks for a more developed description of a correct benefit (to a maximum of **two** benefits), for example: • removal of eyesores to improve the local environment • clean up environmental health hazards to improve health and safety of the local environment • access roads, drainage and services may already be available onsite, which will reduce the cost of a new development • planning permission not contentious, because the principle of development has already been established. Credit any other valid response.				

Question		Answer	AO1	AO2	AO3	Total Mark
3.		*Residential dwellings are used as places of habitation.* *One function of the superstructure of a low-rise residential dwelling is to provide the occupants with protection from the weather.*				
	(a)	*State **four** other functions of the superstructure of a low-rise residential dwelling.*	4			4
		Award **one** mark for each correct function, to a maximum of **four:** • limit heat loss to maintain temperature comfort levels • provide privacy and security for occupants and contents • utilise natural lighting • allow natural ventilation for humidity control • provide a barrier to the transmission of noise. Credit any other valid response.				
	(b)	*Identify **two** electrical services that are required in a residential dwelling.*	2			2
		Award **one** mark for each correct service, to a maximum of **two** marks, for example: • energy supply • lighting systems • security and alarm systems • fire/carbon monoxide detection and protection • communication lines • telephone and IT networks. Credit any other valid response.				
	(c)	*Identify **two** services required in a residential dwelling that would be installed by a plumber.*	2			2
		Award **one** mark for each correct service, to a maximum of **two** marks, for example: • central heating systems • boilers • hot water • cold water • sanitation installations including wastes and internal drainage. Credit any other valid response.				

Question		Answer	AO1	AO2	AO3	Total Mark
4.	*A new dwelling is to be constructed with load bearing masonry walls and a pitched roof.*					
	(a)	*Suggest suitable materials for each of these elements of the new dwelling.*		4		4
		Award **one** mark for a correct proposal for each element, for example: *(i) Cladding of external walls:* • facing brickwork • blockwork and render • insulated panels. *(ii) Forming openings in external walls:* • steel lintels • concrete lintels with cavity tray. *(iii) Roof structure:* • timber trussed rafters • rafters and purlins. *(iv) Internal partitions:* • blockwork partitions • timber stud partitions • steel stud partitions. Credit other valid responses.				
	(b)	*Identify **two** tasks that will be carried out by a plasterer to finish the internal elements of the new dwelling.*	2			2
		Award **one** mark for each correct work item, to a maximum of **two** marks, for example: • applies plaster to inside walls and ceilings • dry lines internal stud partitions • prepare surfaces to receive plasterwork • fit embellishments such as coving. Credit any other valid response.				
	(c)	*Identify **two** alternatives to the use of load bearing masonry walls.*	2			2
		Award one mark for each correct alternative, to a maximum of **two** marks, for example: • structural timber frame • structural steel frame. • structural insulated panels (SIP). Credit any other valid response.				

Question		Answer	AO1	AO2	AO3	Total Mark
5.		*A farmer wishes to build a new dwelling on his land that will be south facing and will have a pitched roof. The farm is situated in a part of the country that experiences a range of weather conditions throughout the year. The farmer would like to use renewable technologies to generate electricity for the new dwelling.*				
	(a)	*Describe a system that uses a renewable source of energy to provide hot water.*	2			2
		Award **one** mark for a basic description of a suitable system, for example: • solar thermal collector panels to convert sunlight into heat • ground source heat pump. Award **two marks** for a more developed description of a suitable system, for example: • solar collector panels, which are roof mounted, collect thermal energy from sunlight used to heat water in pipework passing through the panels. • ground source heat pump, which will transfer heat from the ground into the building which is used to heat domestic water via a heat exchanger. Credit any other valid response.				
	(b)	*Propose a system that could be installed at the new dwelling to use a renewable source of energy to generate electricity.*		2		2
		Award one mark for a basic proposal of a correct system, for example: • photovoltaic panels. • individual wind turbine. Award **two marks** for a more developed proposal of a suitable system, for example: • photovoltaic panels, which are roof mounted panels suited to a pitched roof that converts solar energy to electricity connected to low level batteries for storage and use • individual wind turbine, which will convert wind energy to electricity, connected to low level batteries for storage and use. Credit any other valid response.				

Question		Answer	AO1	AO2	AO3	Total Mark
	(c)	*Explain why the new dwelling is to be connected to the national electrical grid.*		2		2
		Award **one** mark for a basic explanation, for example: • to ensure consistency of supply. • enable surplus energy can be sold to the national system. Award **two marks** for a more developed explanation, for example: • to ensure consistency of supply during periods when environmental/weather conditions do not support on site generation. • to enable surplus energy to be sold to the national system and therefore help with costs by producing an income. Credit any other valid response.				

Question		Answer	AO1	AO2	AO3	Total Mark
6.		*A new community centre is to be constructed in a rural location on the outskirts of a country town. The site for the community centre lies within a conservation area.* *The community centre is to be a framed single storey building, designed to suit the location and to make use of sustainable materials.*				
	(a)	*Propose suitable materials for **three** different elements of the new building.*	6			6
		Award **one mark** for proposing a sustainable material, to a maximum of **three marks**, and **one mark** for identifying the material's correct use, to a maximum of **three marks**, for example: • timber is a renewable construction material and could be used for external wall cladding • steel contains recycled content and can be recycled. Could be used for frame structure • clay bricks can be re-cycled and could be used to create feature walls/landscaping features • straw bales could be used to create walls inside a frame • natural wool could be used as insulation instead of fibreglass • slates or tiles or timber shingles, that may be re-claimed, could be used on roofs. Credit any other valid response.				

Question		Answer	AO1	AO2	AO3	Total Mark
	(b)	*Propose **two** measures that could be taken to preserve the natural environment during the construction of the community centre.*		4		4
		Award **one mark** for a basic suggestion (to a maximum of two suggestions): • limiting the pollution released into water or the ground during construction • limiting dust released into air during construction • reducing impact of noise from plant and machinery • avoiding damage to existing trees • protecting wildlife. Allow **two** marks for a more developed suggestion (to a maximum of two suggestions) for example: • limiting the pollution released into water or the ground during construction by storing materials on suitable surfaces/preventing run-off to natural water courses • limiting dust released into air during construction by dampening down stored materials • reducing impact of noise from plant and machinery by timing noisy operations/fitting sound suppressors to power tools • avoiding damage to existing trees by constructing temporary fences beneath the canopy • protecting local wildlife by erecting protective fences • protecting local wildlife by minimising any disturbance to existing natural habitats. Credit any other valid response.				

Question		Answer	AO1	AO2	AO3	Total Mark
7.	*The preservation of the historic built environment requires a system of planned maintenance.*					
	(a)	*Describe the purpose of planned maintenance.*	2			2
		Award **one mark** for a basic description, for example: • to plan regular maintenance work • to keep something in working order. Award **two** marks for a more developed description, for example: • to ensure a regular programme of preventative maintenance work is carried out • to help prevent small problems escalating, or further deterioration occurring, in order to keep something in working order or extend its life. Credit any other valid response.				
	(b)	*One aim of this maintenance work is to preserve the history and character of historic buildings.* *Describe **two** methods of carrying out maintenance work on historic buildings.*	4			4
		Award **one mark** for each basic description (for a maximum of **two** descriptions), for example: • using materials/methods that match the existing materials/methods • retaining as much of the original fabric as possible. Award **two marks** for a more developed description, (for a maximum of **two** descriptions), for example: • using materials that match the existing materials so that impact of repairs is minimised/so that repair works will blend in with the existing materials/methods • using traditional methods of construction to retain as much of the original fabric as possible and to protect the historic value and character of the building. Credit any other valid response.				

Question		Answer	AO1	AO2	AO3	Total Mark
	(c)	*Give an example of the type of traditional work carried out by **two** trades when maintaining historic buildings.*	4			4
		Award **one mark** for correct trade (to a maximum of **two** trades) and **one** mark for associated work relevant to historic buildings (for a maximum of **two** trades), for example: • Stone mason: dresses, carves and lays traditional stonework, including dry-stone walling/repairs and/or cleans existing traditional stone mouldings and other features • Bricklayer: constructs brickwork using traditional bonding patterns • Plumber: installs traditional lead flashings and roof coverings • Plasterer: replicates traditional ornamental plasterwork using plaster, moulds and casts • Carpenter: replicates traditional ornamental mouldings. Credit any other valid response.				

Question		Answer	AO1	AO2	AO3	Total Mark
8.		*The refurbishment of an existing four-story hotel is to involve complete re-roofing and the repair of chimneys. The hotel is located on an exposed site on the sea front.* *The project requires a health and safety risk assessment.*				
	(a)	Suggest **two** specific hazards to workers that should be included in the risk assessment.		2		2
		Award **one mark** for identifying a correct hazard, to a maximum of **two marks**, for example: • danger of falling from a high level • danger of objects falling and causing injury to people on the ground • manual handling/lifting of materials to high level. Credit any other valid response.				
	(b)	*Propose **two** measures to reduce the risks to health and safety to workers arising from the hazards proposed for the risk assessment.*		4		4
		For a maximum of **two** measures, award **one mark** for a basic suggestion, for example: • use a suitable working platform with an appropriate means of access • reduce risks arising during high winds/bad weather • measures intended to control risks from falling objects • avoid tripping hazards on working platforms • avoid manual lifting of materials to high level. Award two marks for each more developed suggestion, for example: • use a suitable working platform such as MEWP, scaffold with fixed ladders or access platform with integral steps and suitable guard rails • reduce risks arising from high winds by taking account of weather conditions and stopping work when not suitable • control risks from falling objects by installing kick boards and wearing of hard hats • avoid tripping hazards by removing all rubbish and debris as it arises using shoots directly to containers for disposal • avoid manual lifting of materials to a high level by using mechanical hoists. Credit any other valid response.				

Question		Answer	AO1	AO2	AO3	Total Mark
	(c)	*Other hazards arising from the busy street location of the hotel have been identified.* *Propose **two** control measures that will reduce health and safety risks arising from the work to members of the public.*		4		4
		Award **one mark** for a basic proposal of a correct measure, for example: • install signage that warns the public of potential risks • provide a safe pedestrian route • limit work to the least busy periods • install netting around scaffolding. Award **two marks** for a more developed proposal of a correct measure, for example: • install signage that warns the public of potential risks, such as a sign preventing pedestrian access under any scaffolding or staging required to work on the hotel • provide a safe pedestrian route by installing barriers that will have the effect of keeping the public away from the working area and thereby protecting them any dangerous activity • limit work to the least busy periods when fewer people are likely to be present in the area, therefore reducing the potential risks • install netting around any scaffolding that will prevent debris from falling and becoming a tripping hazard or materials falling on the public. Credit any other valid response.				

Question	Answer	AO1	AO2	AO3	Total Mark
9.	*A project for the construction of a new main line rail link is being considered. The project would link several major cities and be an infrastructure project of national importance.* *The project will produce several benefits, but these will need to be weighed against associated drawbacks.*				
	Assess the benefits and associated drawbacks likely to arise from a major infrastructure project of this nature.			10	10

Indicative content

Economic benefits:

- Provides jobs for construction workers, helps local economies with increased employment.
- Creates new jobs to help with the daily running of the new facilities
- Expansion of labour markets due to improved mobility of labour force
- Quicker and more efficient moving of goods.

Social benefits:

- Allows easier access to recreational and cultural facilities in city centres
- Avoids disruption associated with the repair and updating of existing infrastructures
- Relieve overcrowding on existing local services by catering for passengers undertaking longer journeys
- Relieve overcrowding on existing commuter trains by providing additional capacity.

Environmental benefits:

- Freight: increased rail capacity will allow freight to move off road, resulting in fewer lorry journeys and therefore reduced carbon emissions
- Lower pollution: infrastructure built to suit modern trains with reduced emissions.

Economic drawbacks:

- Capital costs: large infrastructure projects are expensive and usually overrun on budget
- Homes in vicinity of the new line will be blighted and their values will be reduced.

Social drawbacks:

- Benefits to commuters may be overrated given increased use of mobile devices and potential of working from home
- Project will only benefit a small section of the population
- People may need to be re-located and property demolished.

Environmental drawbacks:

- Environmental costs in terms of loss of land, including green belt land, detrimental effects on habitats, wildlife, and loss of visual amenity
- Pollution arising from construction work
- Disruption arising from construction work to local populations.

Credit any other valid response.

Band	AO3 - Analyse and evaluate information making reasoned judgements and present conclusions
4	**9-10 marks** An excellent response which demonstrates: • highly effective analysis/evaluation skills • fully developed and balanced arguments • fully considered judgements with clear and relevant links between conclusions and evidence.
3	**6-8 marks** A good response which demonstrates: • effective analysis/evaluation skills • developed arguments that may not be presented in equal measure • considered judgements, with relevant links between conclusions and evidence.
2	**3-5 marks** A basic response which demonstrates: • some analysis/evaluation skills used that may lack precision • only one side of the argument is presented and may not be developed • some judgements and conclusions, with limited use of evidence.
1	**1-2 marks** A limited response which demonstrates: • minimal analysis/evaluation skills used • few judgments and/or conclusions that are not supported.
	0 marks Not attempted or not creditworthy

Question			Mark Allocation												
			Section								*Part*	Total Marks	AO1	AO2	AO3
			1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8					
1	(a)		2								1.1.2	2	2		
	(b)		2								1.1.4	2	2		
	(c)		2								1.1.4	2	2		
2	(a)			2								2	2		
	(b)			4							1.2.4	4	4		
	(c)			2							1.2.6	2	2		
	(d)							4			1.6.5	4	4		
3	(a)					4					1.4.1	4	4		
	(b)		2								1.1.3	2	2		
	(c)								2		1.7.6	2	2		
4	(a)	(i)				1					1.4.2	1		1	
		(ii)				1					1.4.2	1		1	
		(iii)				1					1.4.2	1		1	
		(iv)				1					1.4.2	1		1	
	(b)								2		1.7.3	2	2		
	(c)					2					1.4.2	2	2		

Question			Mark Allocation												
			Section								*Part*	Total Marks	AO1	AO2	AO3
			1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8					
5	(a)					2					1.4.3	2	2		
	(b)					2					1.4.3	2		2	
	(c)		2								1.1.2	2		2	
6	(a)							6			1.6.3	6	6		
	(b)							4			1.6.2	4		4	
7	(a)			2							1.2.4	2	2		
	(b)						4				1.5.4	4	4		
	(c)								4			4	4		
8	(a)									2	1.8.1	2		2	
	(b)									4	1.8.6	4		4	
	(c)									4	1.8.3	4		4	
9					10						1.3.1	10			10
Total Marks												80	48	22	10