



**Coimisiún na Scrúduithe Stáit**  
**State Examinations Commission**

**Leaving Certificate 2026**

**Marking Scheme**

**Construction Studies**

**Ordinary Level**

## **Note to teachers and students on the use of published marking schemes**

Marking schemes published by the State Examinations Commission are not intended to be standalone documents. They are an essential resource for examiners who receive training in the correct interpretation and application of the scheme. This training involves, among other things, marking samples of student work and discussing the marks awarded, so as to clarify the correct application of the scheme. The work of examiners is subsequently monitored by Advising Examiners to ensure consistent and accurate application of the marking scheme. This process is overseen by the Chief Examiner, usually assisted by a Chief Advising Examiner. The Chief Examiner is the final authority regarding whether or not the marking scheme has been correctly applied to any piece of candidate work.

Marking schemes are working documents. While a draft marking scheme is prepared in advance of the examination, the scheme is not finalised until examiners have applied it to candidates' work and the feedback from all examiners has been collated and considered in light of the full range of responses of candidates, the overall level of difficulty of the examination and the need to maintain consistency in standards from year to year. This published document contains the finalised scheme, as it was applied to all candidates' work.

In the case of marking schemes that include model solutions or answers, it should be noted that these are not intended to be exhaustive. Variations and alternatives may also be acceptable. Examiners must consider all answers on their merits, and will have consulted with their Advising Examiners when in doubt.

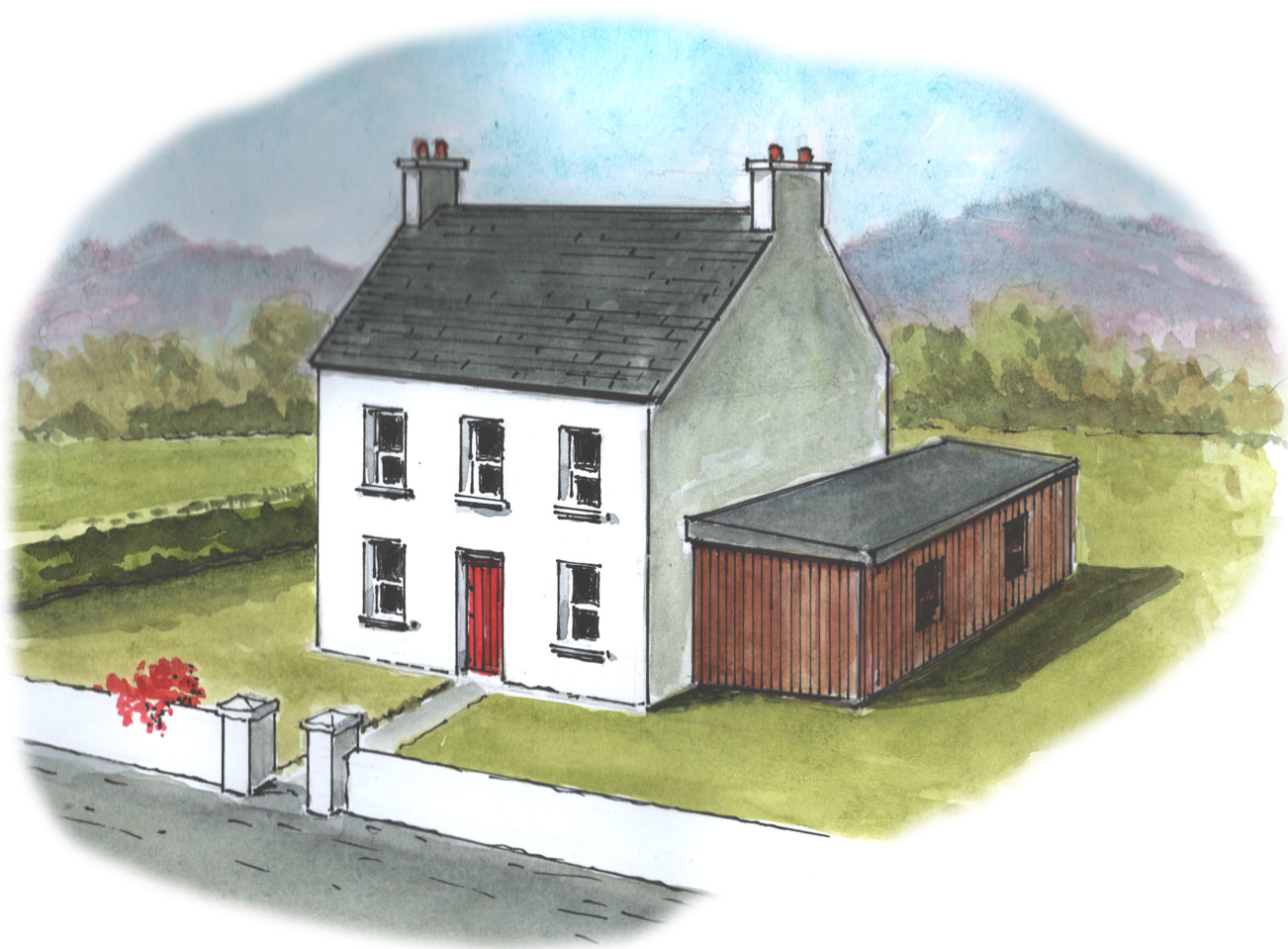
## **Future Marking Schemes**

Assumptions about future marking schemes on the basis of past schemes should be avoided. While the underlying assessment principles remain the same, the details of the marking of a particular type of question may change in the context of the contribution of that question to the overall examination in a given year. The Chief Examiner in any given year has the responsibility to determine how best to ensure the fair and accurate assessment of candidates' work and to ensure consistency in the standard of the assessment from year to year. Accordingly, aspects of the structure, detail and application of the marking scheme for a particular examination are subject to change from one year to the next without notice.



**Coimisiún na Scrúduithe Stáit**  
*State Examinations Commission*

*Leaving Certificate Examination, 2026*



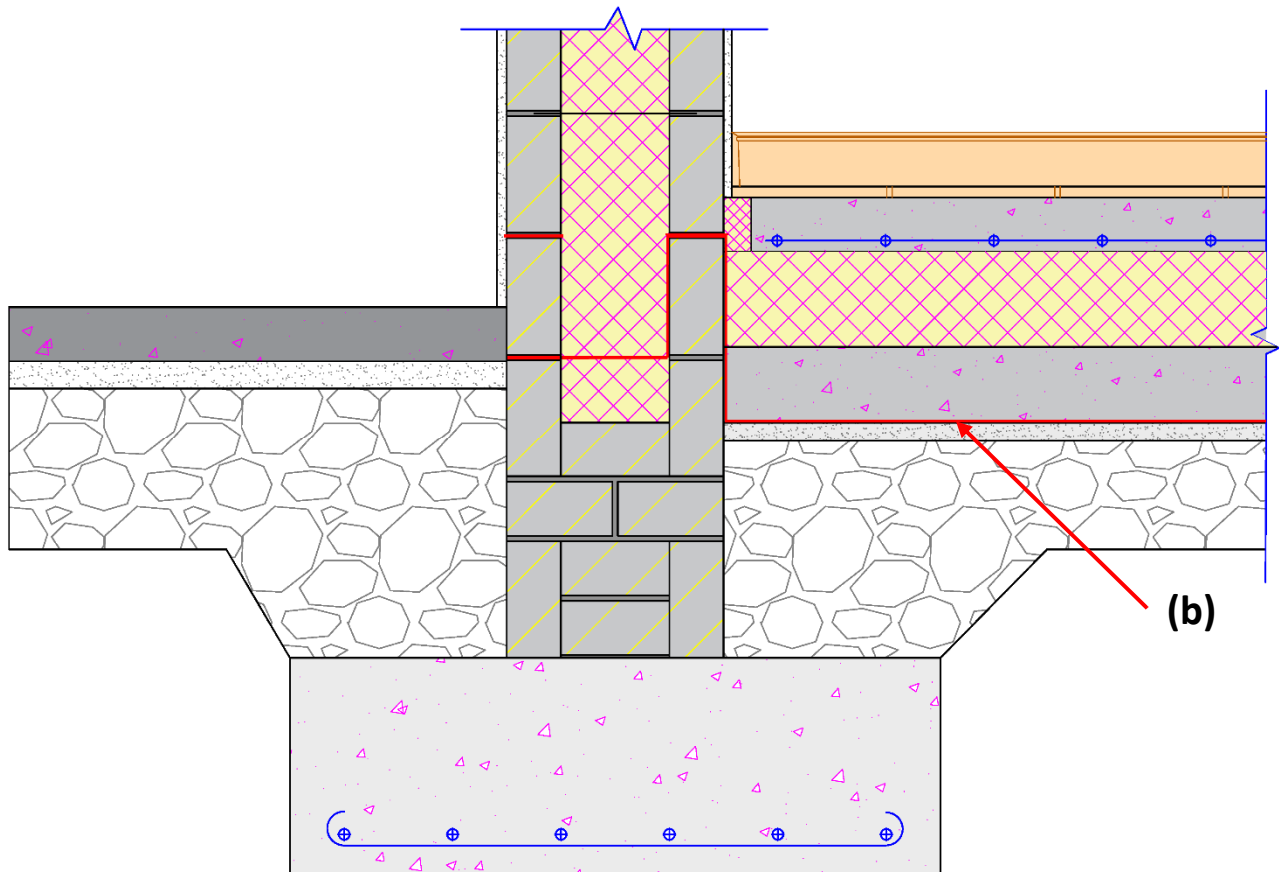
# *Construction Studies*

## *Theory – Ordinary Level*

**Note:** Notes and graphics are for illustration and are not exclusive or exhaustive, other relevant notes and graphics are acceptable as responses and will be credited accordingly.

## Question 1.

(a) Vertical section through the external wall and traditional strip foundation of a dwelling house.



### Specification – typical detail

- Reinforced concrete foundation
- Concrete fill
- Hardcore max 225mm layers
- Sand blinding
- Radon barrier
- Concrete subfloor
- 200 – 300 mm rigid floor insulation
- Screed
- 20 mm T&G flooring
- 15 mm internal plaster
- Airtight tape
- Inner leaf 100 mm
- Outer leaf 100 mm
- Full-fill insulated cavity
- 18 mm external render
- DPC

*N.B. Any alternative detailing which complies with current Building Regulations is acceptable.*

(b) Design detailing that prevents dampness entering the building through the floor.

Radon barrier/Damp proof membrane.

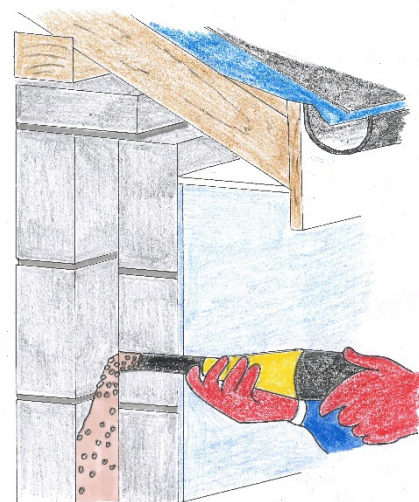
## Question 2

(a) **Two advantages of improving the thermal performance of the external walls.**

- Insulating the walls will reduce heat loss in the house making it more energy efficient
- To lower energy bills in the house
- Reduces your carbon footprint
- To increase comfort levels in the house
- Walls form the largest surface area of a house for heat to escape
- Can be insulated with minimal disruption to the occupiers.

(b) **One suitable method of highly insulating the external walls**

- Drill a series of holes 22 mm – 25 mm in diameter through the external leaf of the house
- Holes spaced approximately 1 metre apart and in a grid pattern to ensure full coverage
- Using compressed air, bonded bead and adhesive is blown into the cavity
- The cavity is completely filled with the insulation
- The holes are filled and decorated to reinstate the original appearance of the exterior.



*Alternative method*

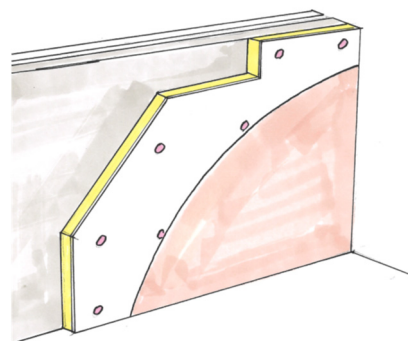
- External insulation system
- Internal plasterboard system
- Boards fixed with adhesive and mechanical anchors.

**Type of insulation**

- Expanded polystyrene EPS
- Phenolic
- Polyisocyanurate (PIR)
- Extruded Polystyrene (XPS).

**Thickness of insulation**

- 100mm - 200 mm insulation thickness minimum.

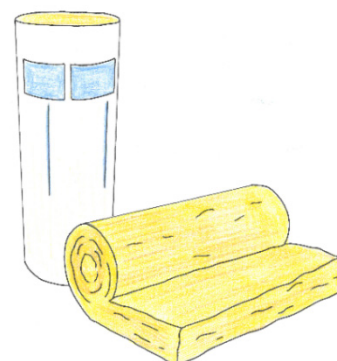


(c) **One other area of a house that could be upgraded to improve its overall thermal performance. Give two reasons for your choice.**

- Upgrading the windows and doors to a high-performance system
- Adding insulation to the roof space
- The addition of insulation to the ground floor
- Airtightness measures added at key areas and junctions
- Heat recovery ventilation system added to replace wall vents.

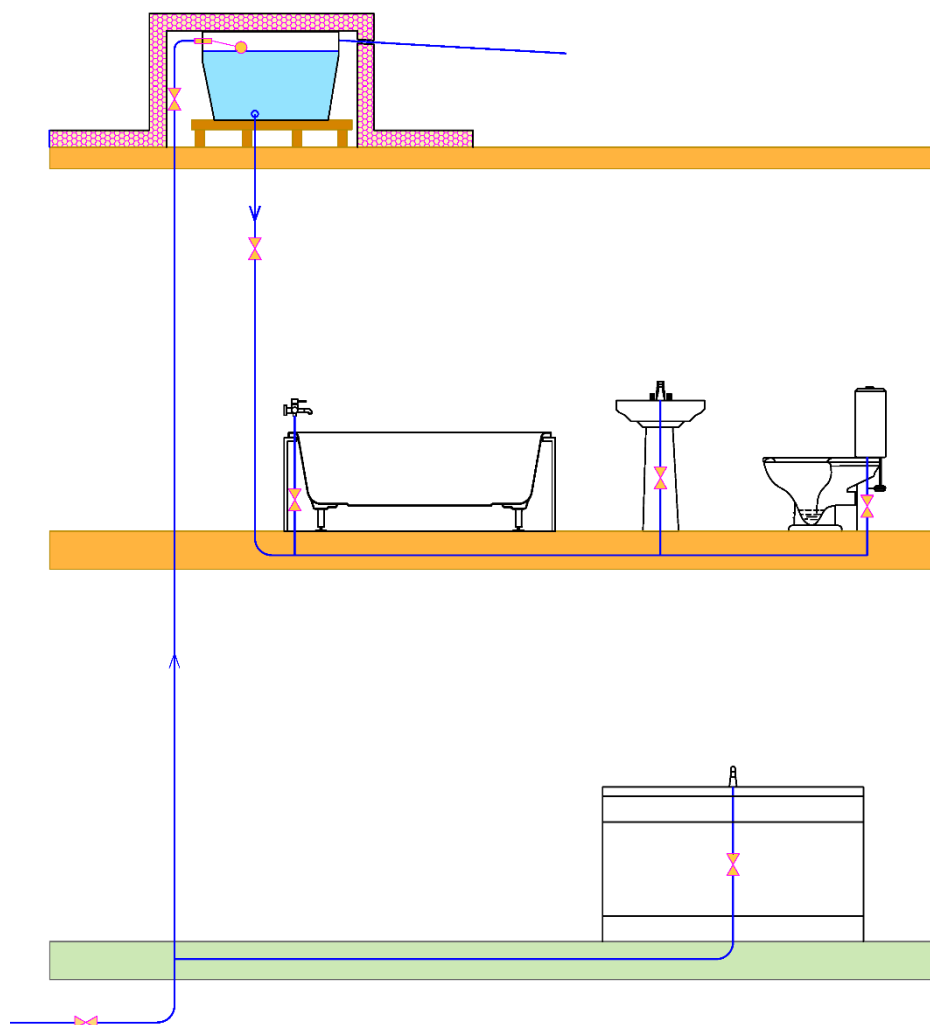
**Reasons**

Cost efficient, quick method, minimal disruption to the home owner, highly effective for heat loss, saves money on heating the home.



### Question 3

- (a) Pipework necessary to supply cold water to the kitchen sink on the ground floor, wash basin, toilet cistern, and bath on the first floor.



#### Typical details:

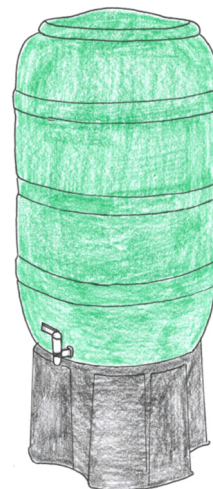
- 15mm rising main
- Stop valve
- Insulated storage tank
- Ø28 mm overflow pipe
- Toilet cistern
- Ø15 mm cold feed to toilet cistern
- Wash basin
- Ø15 mm cold feed to wash basin
- Bath
- Ø22 mm hot and cold feed to bath
- Stop valves and drain valve.

*N.B. Any alternative detailing which complies with current Building Regulations is acceptable.*

- (b) A rainwater butt is used to collect rainwater from the roof. Give two possible uses for the collected rainwater.

- Watering gardens, lawns or plants
- Washing cars or bicycles
- Cleaning outdoor equipment
- Cleaning patios or driveways
- Flushing toilets if correctly plumbed
- Emergency water supply (non-drinkable).

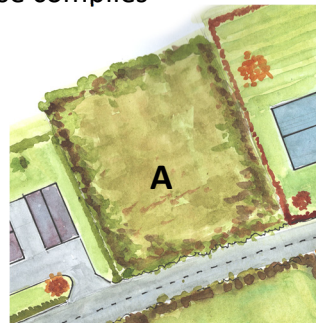
*Any other suitable reason will be accepted*



## Question 4

(a) Discuss two reasons why it is necessary to apply for planning permission to build a new dwelling house.

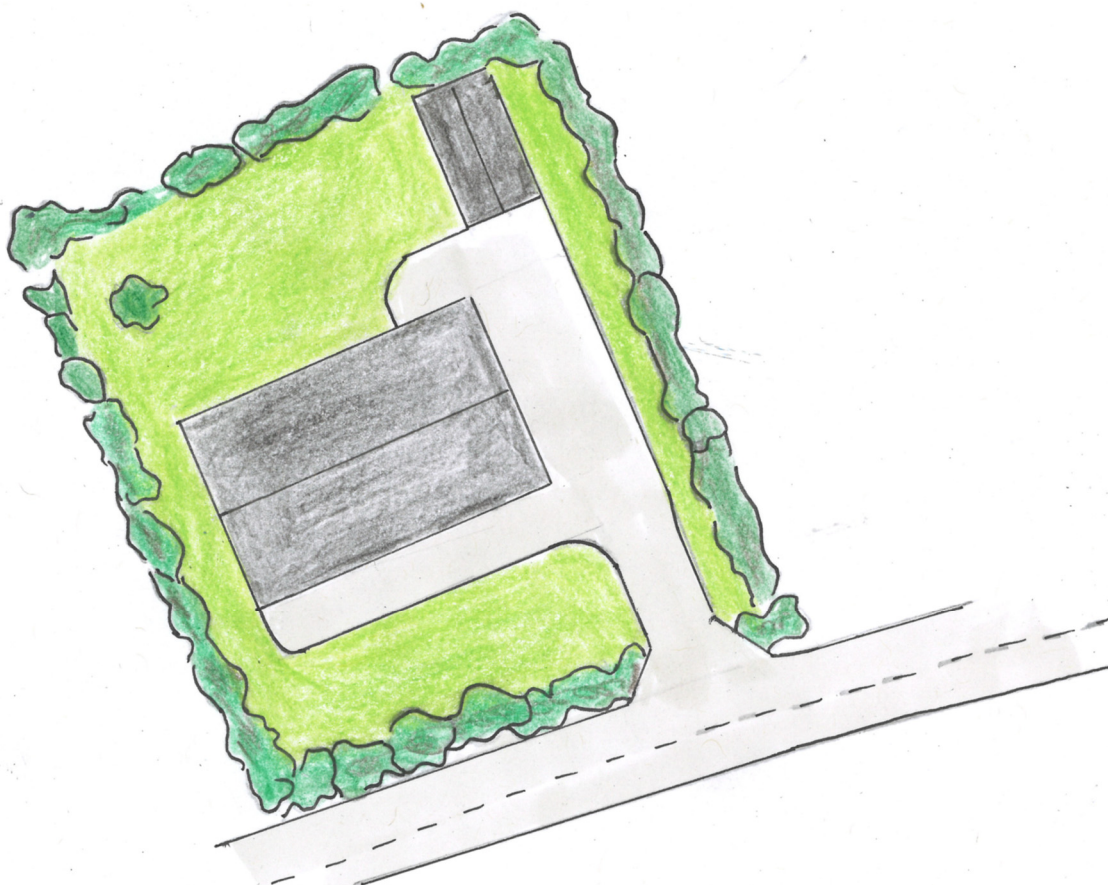
- Planning permission is a legal requirement for all new dwelling houses in Ireland
- Planning permission ensures that the proposed dwelling house complies with Irish planning laws
- It ensures that all development is in line with the development plan as set out by the local planning authority
- It ensures any development allows for safe road access to and from the new dwelling house
- It ensures that the new dwelling will not negatively impact the environment or neighbouring residents
- Suitable wastewater treatment and drainage must be allowed in the planning application
- The planning process helps ensure that new homes are built safely and sustainably.



*Any other valid reason will be accepted.*

(b) Draw a large freehand sketch of the given site A. On your sketch include your preferred:

- house position
- entrance to the site
- driveway to the house
- garage position.



**House position**

- House positioned to allow south facing façade
- Positioned to allow maximum solar gain
- House position leaves room for a large front and rear garden
- Existing hedgerow boundaries utilised for shelter barrier
- Positioned to allow maximum solar gain.

**Entrance to site**

- Entrance has easy access to the main road
- Entrance splayed to allow clear sight lines for safe exit
- Positioned to one side of site to reduce visual impact
- Similar style entrance to neighbouring properties.

**Driveway to the house**

- Designed to a simple design thus reducing labour and materials
- Positioned to one side of site to reduce visual impact
- Positioned so the garage is easily accessible
- Driveway allows for car parking to side and back of house.

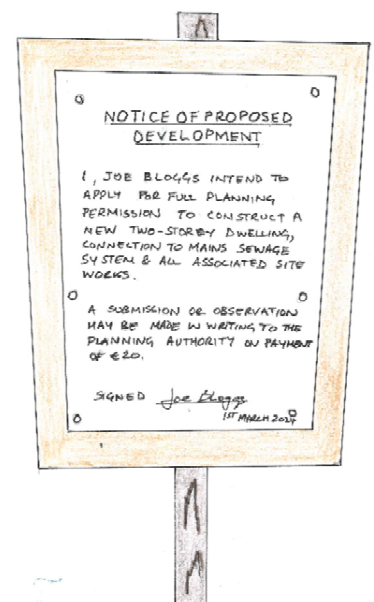
**Garage position**

- Positioned to corner of site to minimise impact on garden
- Allows for a large lawn area for kids to play
- Will have minimal visual impact if positioned at rear of site
- Away from house to minimise noise if being used as a workshop
- Positioned so it can be accessed by a car.

**(c) Identify two items which must be submitted as part of a planning application when applying for permission to build a dwelling house.**

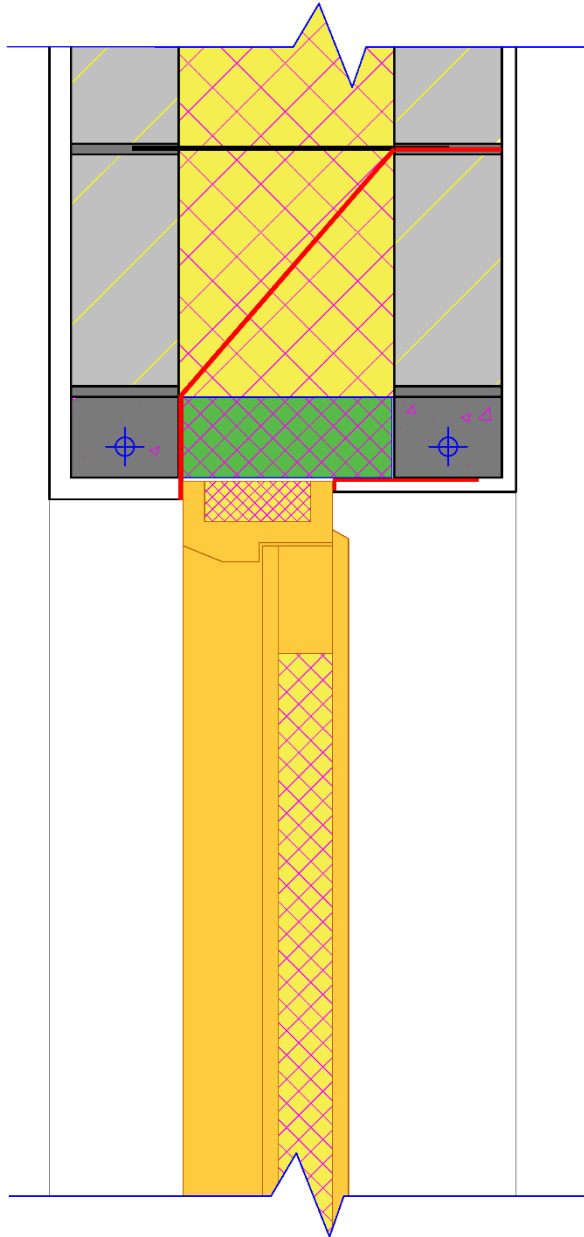
- Completed and signed application form
- Application fee
- One copy of the relevant page of the newspaper in which the notice of the application has been published
- One copy of the site notice
- Six copies of the site location map
- Six copies of site layout plans
- Six copies of architectural drawings
- Environmental reports or assessments where required
- Ownership details or landowner consent.

*Any other suitable item will be accepted*



## Question 5

(a) Vertical section through the external wall, concrete lintels, doorframe, and door.



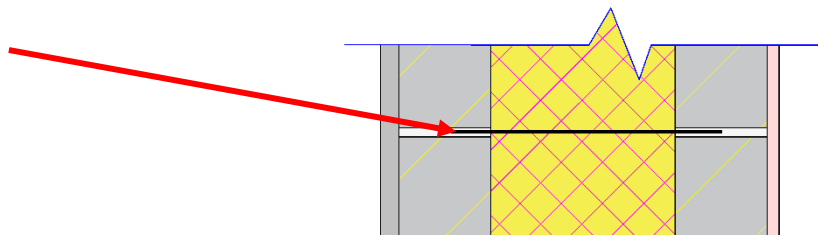
### Specification – typical detail

- 19 mm external render
- Concrete block outer leaf 100 mm
- Full fill insulated cavity 200 mm
- Wall tie
- Concrete block inner leaf 100 mm
- 15 mm internal plaster
- Cavity closer
- 100 mm x 75 mm concrete lintels
- Stepped DPC
- Thermally broken door frame
- Insulated door
- Airtightness tape.

*Note: Any alternative detailing which complies with current Building Regulations is acceptable*

(b) Detailing to link the inner and outer leaves of the cavity wall.

Wall tie.



*Any other suitable detail will be accepted.*

## Question 6

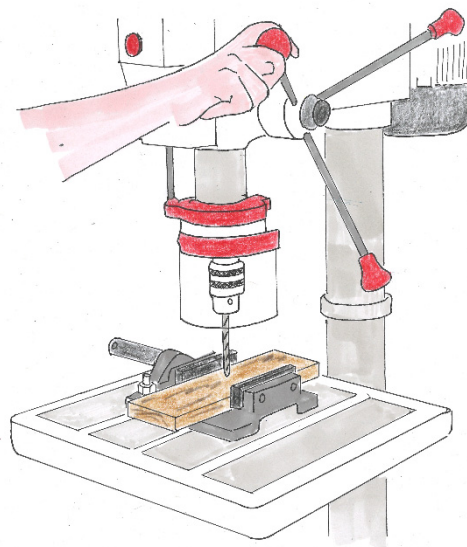
- (a) State two specific safety precautions to be observed in the Construction Studies classroom in each of the following situations:

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Using a scroll saw                     | <ul style="list-style-type: none"> <li>• Wear safety glasses or goggles to protect the eyes</li> <li>• Ensure the blade is installed correctly and tightened</li> <li>• Remove jewellery, loose clothing, and tie back long hair</li> <li>• Use ear protection to reduce damage to hearing</li> <li>• Keep fingers a safe distance from the blade</li> <li>• Know the location of the emergency stop switch.</li> </ul>                                                |
| Applying a spray finish to an artefact | <ul style="list-style-type: none"> <li>• Ensure the work zone is well ventilated</li> <li>• Use a respirator mask to avoid inhaling any vapours</li> <li>• Use exhaust fans or spray booths if possible</li> <li>• Cover exposed skin with long sleeves or protective clothing</li> <li>• Use safety goggles or a face shield</li> <li>• Never spray near open flames.</li> </ul>  |

*Any other suitable specific precaution will be accepted.*

- (b) Using notes and freehand sketches, describe three specific safety precautions that should be observed when using a pillar drill. Give one reason for each safety precaution outlined.

- Wear safety glasses or goggles to protect your eyes from chips or debris
- Long hair must be tied back, loose clothes and jewellery removed
- Ensure the safety guard is closed before use
- Use the correct drill bit and speed for the material being drilled
- Always keep hands clear of the rotating parts when in use
- Ensure the work piece is securely held
- Ensure you know where the emergency stop button is located on the drill.



*Any other suitable reason will be accepted.*

**(c) Discuss two reasons why it is essential that students receive safety training before using tools and machinery in the Construction Studies room.**

- Reduces the risk of accidents and injuries through incorrect use of tools
- Teaches and promotes safe procedures and practices when using tools
- Ensures the proper use of personal protective equipment (PPE) in the construction studies room
- Builds the students confidence and competence in using tools correctly
- Helps students recognise and identify potential hazards in the construction studies room
- Prevents damage to tools or equipment through incorrect use.



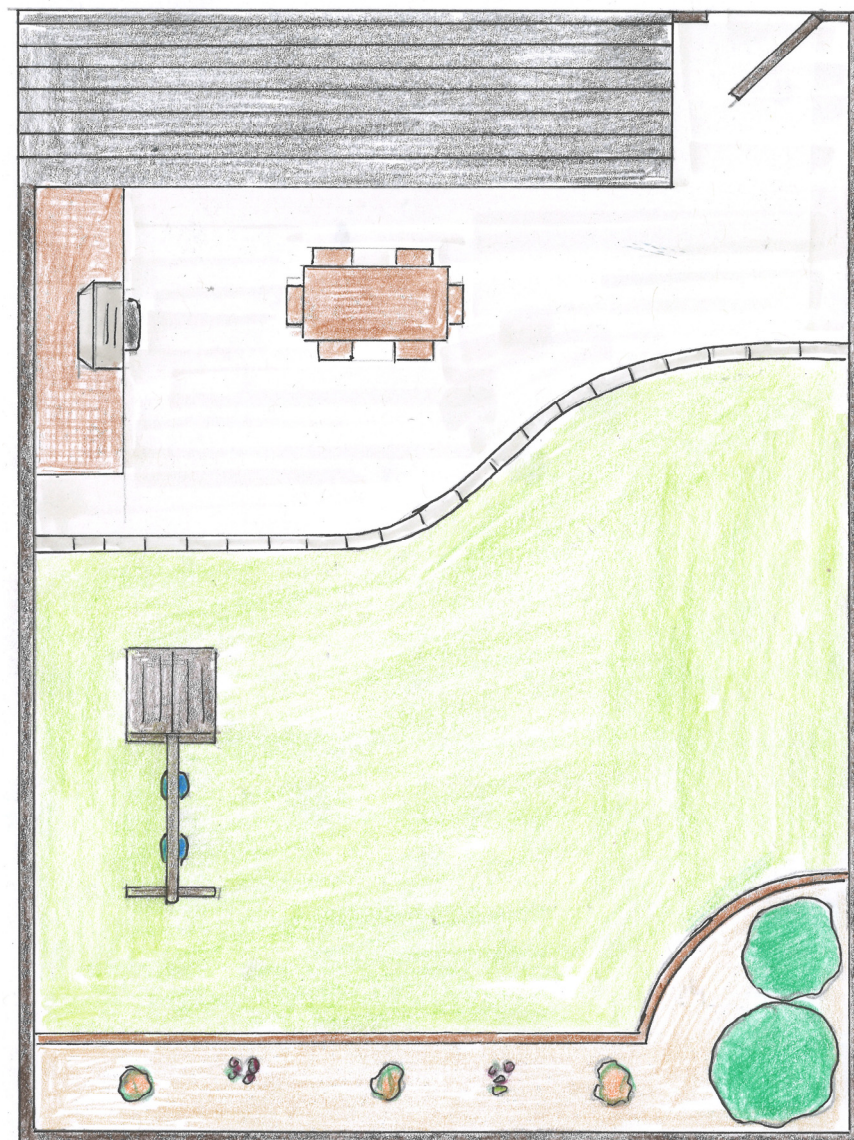
## Question 7

(a) Discuss two ways in which a garden can contribute to a family's wellbeing.

- Provides an outdoor space to relax and unwind which can help relieve stress
- A garden encourages physical activity through such things as exercise, play, gardening etc
- Provides a recreational space for children to play and adults to socialise
- Can increase the usable space of a house especially in the summer
- Allows for a family to plant and grow vegetables, fruit and herbs which contribute to healthier eating habits
- Creates opportunities for family bonding time through outdoor activities or gardening projects
- Can provide an outdoor area to cook, eat and socialise.

(b) Draw a large freehand sketch of the given design and show your preferred location for each of the following in the garden space:

- outdoor living space
- cooking area
- children's play area
- flowerbed and trees.



**Give one reason for selecting each location.****outdoor living space**

- Located close to the house for ease of access for indoor and outdoor living
- Located on the south side of the garden
- Located close to the cooking area and with view of the garden.

**cooking area**

- Located beside the outdoor living space for serving food
- Located close to the house for ease of preparation
- Located along wall which provides stability and area to run services.

**children's play area**

- Located in a clear area to provide plenty of space for play
- Located in clear view of the house for safety
- Located to one side of lawn in order to avoid obstruction of garden view.

**flowerbed and trees.**

- Located in sight of house to provide a view for occupants
- Located to capture sunlight during the day
- Located along boundary to provide privacy and provide space in the garden.

*Or any other suitable locations and reason will be accepted*

**(c) Discuss two benefits of having a south facing garden.**

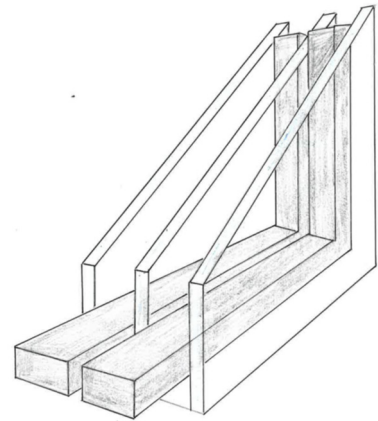
- South facing gardens enjoy sunlight all day which is ideal for indoor/outdoor living
- A south facing garden is generally warmer and brighter than gardens with other orientations, making it more comfortable to use
- Families are more likely to make use of a garden that is south facing
- Increased sunlight from a south facing garden encourages the healthy growth for plants, flowers, and vegetables
- A south facing garden can help heat and light a house naturally reducing energy costs
- It can make a house more desirable and increase a home's property value.

*Any other valid reason will be accepted.*

## Question 8

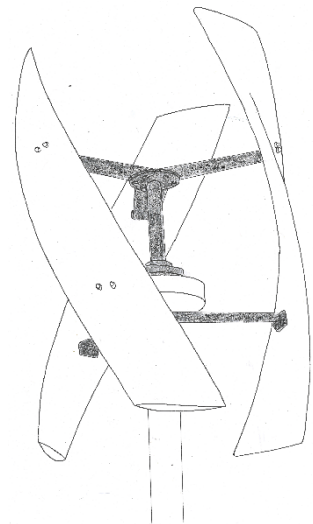
### Triple glazing

- Triple glazing windows are made with three panes of glass
- Triple glazing is more energy efficient than traditional double or single glazing
- The panes are separated by insulating gaps which are often filled with gases like argon
- Triple glazing has a high level of thermal and sound insulation
- Triple glazing is typically more expensive than double glazing.



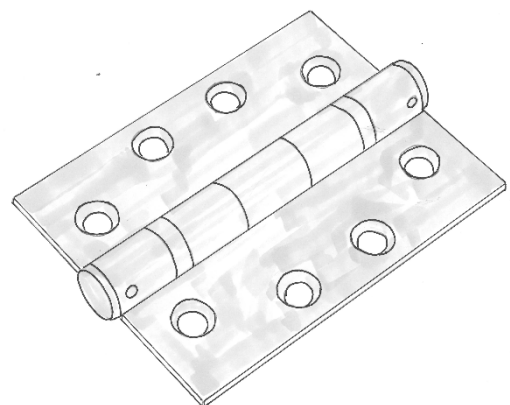
### Wind turbine

- A wind turbine is a device that converts the kinetic energy of wind into electricity
- The electricity generated by a wind turbine is considered renewable energy
- A wind turbine can be placed on land or offshore. They can be placed individually or in clusters to form a wind farm
- Ireland produces a large amount of its energy from wind turbines
- A wind turbine does not produce any emissions unlike other methods of producing electricity.



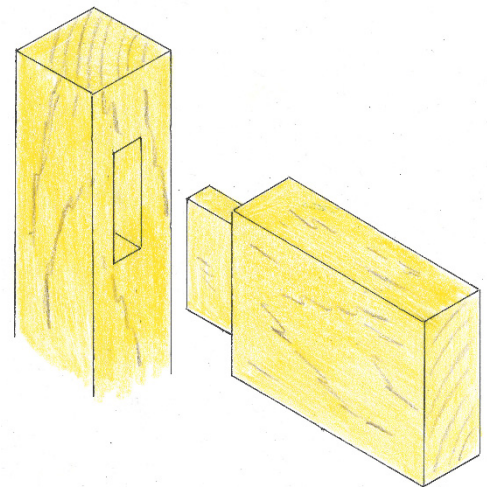
### Butt hinge

- A butt hinge is a very common type of hinge used to join a door to a frame
- A butt hinge consists of two rectangular plates called leaves, joined together with knuckles and a pin
- When the door is closed the two leaves of the butt hinge sit flush
- A butt hinge is suitable for interior or exterior use, and is commonly used on doors, cabinets and lids etc.
- Butt hinges are a very strong and affordable hinge.



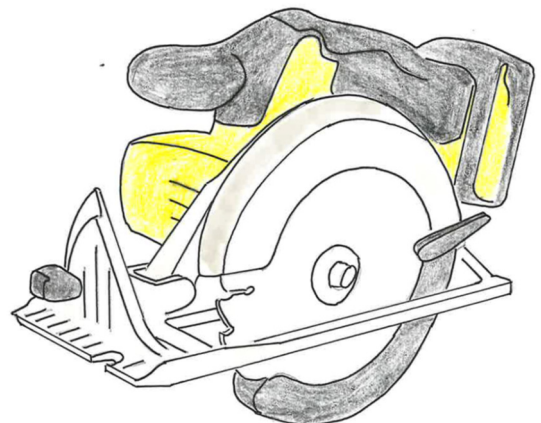
### Mortise and tenon joint

- A mortise and tenon joint are one of the most common woodworking joints
- A mortise and tenon joint consist of a tenon cut on the end of one piece of wood, which slots into a mortise on another piece
- It is an extremely strong woodworking joint with a large gluing area
- It's commonly used to join legs and rails on chairs and tables. It is also commonly used in doors and windows
- A stopped mortise and tenon joint hides the tenon, giving a seamless finish to furniture.



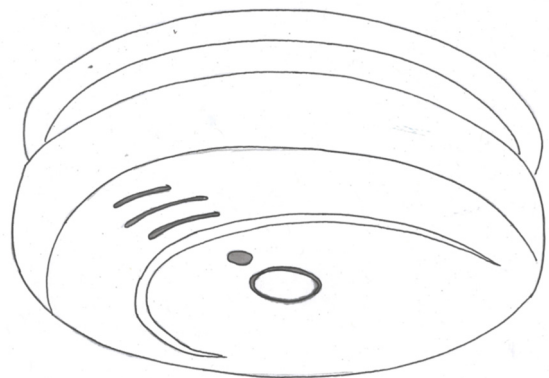
### Cordless circular saw

- A cordless circular saw is a portable power tool used for cutting wood without requiring a mains cable
- A cordless circular saw is powered by a rechargeable battery
- They are a very convenient portable power tool used for cutting wood (and sometimes metal or plastic) without needing a mains cable
- They can be used to carry out rip cuts, crosscuts and bevel cuts
- They are typically powered with lithium-ion batteries.



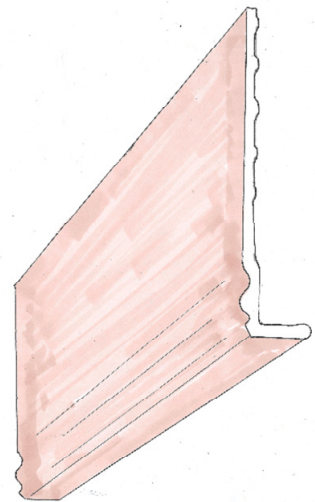
### Carbon monoxide alarm

- A carbon monoxide alarm is a safety device that detects the presence of carbon monoxide (CO) gas in a building and warns occupants before dangerous levels build up
- Carbon monoxide gas is a colourless, odourless, tasteless but highly poisonous gas
- A carbon monoxide alarm detects CO leaks from fuel burning appliances such as boilers, stoves, fireplaces, or heaters
- A continuous or beeping noise will sound if high levels of CO are present and detected
- Carbon monoxide (CO) alarms are mandatory in Ireland when installing new or replacing existing fossil fuel appliances in both new and existing homes
- Carbon monoxide alarms should be regularly checked to ensure they are in proper working order.



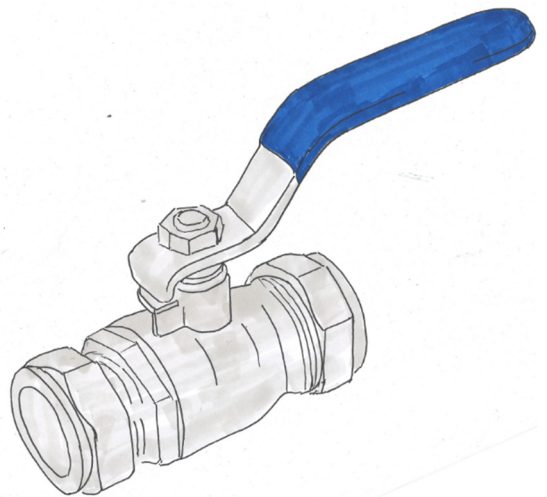
## Fascia board

- A fascia board is a horizontal board fixed along the lower edge of a roof. It is fixed to the ends of the roof rafters
- It is usually made from timber or uPVC material
- It provides protection to the end of the rafters and a support to which the guttering system can be fixed
- It helps close the end of the roof stopping moisture and pests entering the roof space
- Fascia boards come in different colours or with decorative moulds to give an attractive appearance.



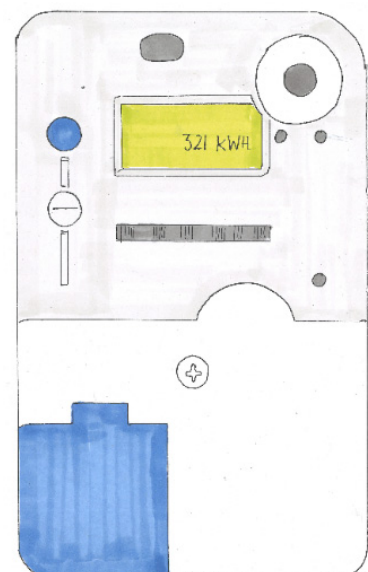
## Ball valve

- A ball valve is a type of valve that controls the flow of water using a rotating ball with a hole in its centre
- Water will flow when the hole lines up with the direction of the pipe
- Water is blocked and will not flow when the hole is perpendicular to the pipe direction
- The direction of the handle indicates if the valve is open, closed or partially open
- This is a very common valve found in most dwelling houses
- Generally placed in plumbing systems to allow them to be shut down for maintenance or in an emergency.



## Smart meter

- A smart meter is an electrical meter which automatically records electrical usage and sends it to the electricity supplier
- A smart meter removes the need for a manual meter reading
- Smart meters break down the electrical usage into daytime, night time and peak time
- Smart meters allow you to see detailed usage patterns for a household. This can assist when choosing an electrical tariff
- They remove the need for estimated billing
- Smart meters can help save energy and money by showing where usage is high.



## Question 9

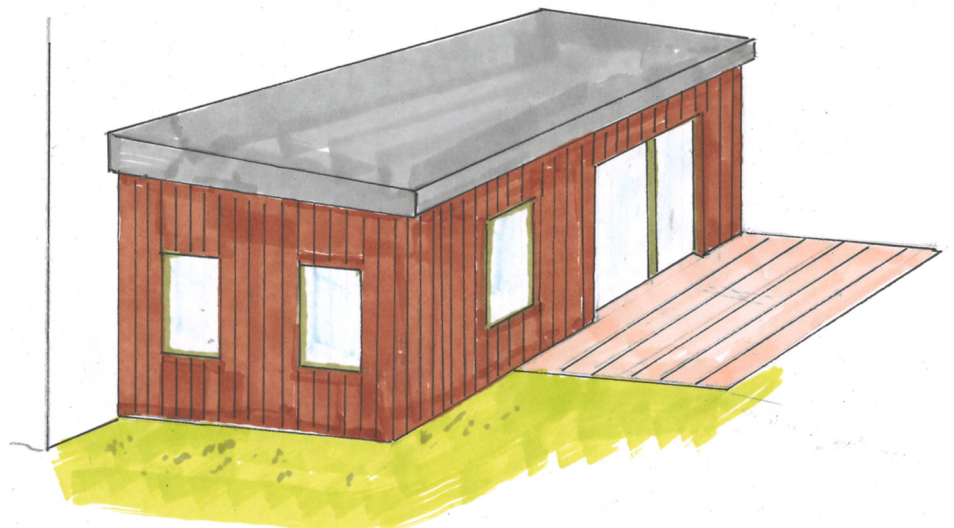
**(a) Two reasons why the homeowners may wish to build an extension to their house.**

- To provide additional living space to the home
- An extension can allow for the rearrangement of the living spaces
- The addition of an extension can allow more light to enter the existing farmhouse
- If the homeowner required a bigger home, they could stay rather than having to purchase a new house
- A well-designed extension can increase the value of the home
- An extension can make the home a more enjoyable place to live.

*Any other valid reason*

**(b) Two modifications to the proposed extension that would allow for additional natural light and access to the garden.**

- Additional windows added to the front façade
- The addition of a large glazed door
- Install a large slider
- Skylights included in the roof
- Increase the size or number of windows
- Double doors or glazed door to garden.



**(c) Specify a suitable timber for the external cladding, and give two reasons why timber is a suitable cladding material.**

- Larch
- Cedar
- Spruce
- Charred timber.

**Reasons**

- Timber is a natural material
- Timber can be locally sourced and considered an environmentally friendly cladding option
- Timber is a durable long-lasting material
- Wood is attractive in appearance with warm colour tones
- Burnt timber has a unique appearance and is durable.

*Any other valid reason*



**Question 1.**

| <b>Vertical section through the external wall and traditional strip foundation.</b>               |                                |                 |
|---------------------------------------------------------------------------------------------------|--------------------------------|-----------------|
| <b>Details - typical sizes</b>                                                                    |                                | <b>Marks</b>    |
| <b>Part (a)</b>                                                                                   |                                |                 |
| Reinforced concrete foundation                                                                    |                                | <b>5</b>        |
| Hardcore max 225mm layers                                                                         |                                |                 |
| Sand blinding                                                                                     |                                |                 |
| Radon barrier                                                                                     |                                |                 |
| Concrete subfloor                                                                                 |                                |                 |
| 200 – 300 mm rigid floor insulation                                                               |                                |                 |
| Screed                                                                                            |                                |                 |
| 20 mm T&G flooring                                                                                |                                | <b>5</b>        |
| Outer leaf external render                                                                        |                                | <b>5</b>        |
| Concrete fill                                                                                     |                                | <b>5</b>        |
| Full-fill insulated cavity                                                                        |                                |                 |
| Inner leaf internal plaster                                                                       |                                |                 |
| Airtightness tape                                                                                 |                                |                 |
| <b>Any 7 x 5 marks</b>                                                                            | <b>Sub-total</b>               | <b>35</b>       |
| Any 3 typical dimensions                                                                          |                                | <b>3</b>        |
| <b>Draughting, accuracy, and scale</b>                                                            | <b>(excellent, good, fair)</b> | <b>8</b>        |
|                                                                                                   | <b>8      6      4</b>         |                 |
|                                                                                                   | <b>Sub-total</b>               | <b>11</b>       |
| <b>Part (b)</b>                                                                                   |                                |                 |
| Show the typical design detailing that prevents dampness entering the building through the floor. |                                |                 |
| Radon barrier clearly identified                                                                  |                                | <b>4</b>        |
|                                                                                                   | <b>Sub-total</b>               | <b>4</b>        |
|                                                                                                   |                                | <b>50 marks</b> |

**Question 2.**

| <b>Energy upgrades</b>                                                                                                                                |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Details</b>                                                                                                                                        | <b>Marks</b>    |
| <b>Part (a)</b>                                                                                                                                       |                 |
| Discuss <b>two</b> advantages of improving the thermal performance of the external walls.                                                             |                 |
| Advantage 1                                                                                                                                           | <b>6</b>        |
| Advantage 2                                                                                                                                           | <b>6</b>        |
| <b>Sub-total</b>                                                                                                                                      | <b>12</b>       |
| <b>Part (b)</b>                                                                                                                                       |                 |
| Method of insulating the external walls.                                                                                                              |                 |
| Method of insulating the walls <i>note &amp; sketch</i> (8 + 8 marks)                                                                                 | <b>16</b>       |
| Preferred insulation type for external wall                                                                                                           | <b>4</b>        |
| Thickness of insulation                                                                                                                               | <b>4</b>        |
| <b>Sub-total</b>                                                                                                                                      | <b>24</b>       |
| <b>Part (c)</b>                                                                                                                                       |                 |
| Identify <b>one</b> other area of a house that could be upgraded to improve its overall thermal performance. Give <b>two</b> reasons for your choice. |                 |
| Area                                                                                                                                                  | <b>2</b>        |
| Reason 1                                                                                                                                              | <b>6</b>        |
| Reason 2                                                                                                                                              | <b>6</b>        |
| <b>Sub-total</b>                                                                                                                                      | <b>14</b>       |
| <b>Total</b>                                                                                                                                          | <b>50 marks</b> |

**Question 3.**

| <b>Cold water supply</b>                                                                                                                                            |                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <b>Details – typical sizes</b>                                                                                                                                      | <b>Marks</b>     |
| <b>Part (a)</b><br>Pipework necessary to supply <b>cold water</b> to the kitchen sink on the ground floor, wash basin, toilet cistern, and bath on the first floor. |                  |
| 15mm rising main                                                                                                                                                    | 5                |
| 15mm cold water feed to kitchen sink                                                                                                                                |                  |
| Kitchen sink                                                                                                                                                        |                  |
| Insulated water storage tank                                                                                                                                        |                  |
| Ball valve in tank                                                                                                                                                  |                  |
| Overflow pipe                                                                                                                                                       |                  |
| Bathroom fixtures                                                                                                                                                   |                  |
| Cold water feed to wash basin                                                                                                                                       |                  |
| Cold water feed to toilet cistern                                                                                                                                   |                  |
| Cold water feed to bath                                                                                                                                             |                  |
| Valves.                                                                                                                                                             |                  |
| <b>Any 8 x 5 marks</b>                                                                                                                                              | <b>Sub-total</b> |
|                                                                                                                                                                     | <b>40</b>        |
| <b>Part (b)</b><br>Give <b>two</b> possible uses for the collected rainwater.                                                                                       |                  |
| Use 1                                                                                                                                                               | 5                |
| Use 2                                                                                                                                                               | 5                |
|                                                                                                                                                                     | <b>Sub-total</b> |
|                                                                                                                                                                     | <b>10</b>        |
|                                                                                                                                                                     | <b>Total</b>     |
|                                                                                                                                                                     | <b>50 marks</b>  |

**Question 4.**

| <b>Planning a site</b>                                                                                                      |                 |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Details</b>                                                                                                              | <b>Marks</b>    |
| <b>Part (a)</b>                                                                                                             |                 |
| Discuss <b>two</b> reasons why it is necessary to apply for planning permission to build a new dwelling house.              |                 |
| Reason 1                                                                                                                    | <b>5</b>        |
| Reason 2                                                                                                                    | <b>5</b>        |
| <b>Sub-total</b>                                                                                                            | <b>10</b>       |
| <b>Part (b)</b>                                                                                                             |                 |
| Draw a large freehand sketch of the given site <b>A</b> .                                                                   |                 |
| Site outline                                                                                                                | <b>6</b>        |
| House position                                                                                                              | <b>6</b>        |
| Entrance to the site                                                                                                        | <b>6</b>        |
| Driveway to the house                                                                                                       | <b>6</b>        |
| Garage position                                                                                                             | <b>6</b>        |
| <b>Sub-total</b>                                                                                                            | <b>30</b>       |
| <b>Part (c)</b>                                                                                                             |                 |
| Two items which must be submitted as part of a planning application when applying for permission to build a dwelling house. |                 |
| Item 1                                                                                                                      | <b>5</b>        |
| Item 2                                                                                                                      | <b>5</b>        |
| <b>Sub-total</b>                                                                                                            | <b>10</b>       |
| <b>Total</b>                                                                                                                | <b>50 marks</b> |

**Question 5.**

| <b>Vertical section through the external wall and door</b>                                |                                                |                 |
|-------------------------------------------------------------------------------------------|------------------------------------------------|-----------------|
| <b>Details - typical sizes</b>                                                            |                                                | <b>Marks</b>    |
| <b>Part (a)</b>                                                                           |                                                |                 |
| Draw a vertical section through the external wall, concrete lintels, doorframe, and door. |                                                |                 |
| External render                                                                           |                                                | <b>5</b>        |
| Concrete block outer leaf                                                                 |                                                |                 |
| Full fill insulated cavity with wall tie                                                  |                                                | <b>5</b>        |
| Concrete block inner leaf                                                                 |                                                | <b>5</b>        |
| Internal plaster                                                                          |                                                | <b>5</b>        |
| Cavity closer                                                                             |                                                | <b>5</b>        |
| Stepped DPC                                                                               |                                                | <b>5</b>        |
| Concrete lintels                                                                          |                                                | <b>5</b>        |
| Thermally broken door frame                                                               |                                                | <b>5</b>        |
| Insulated door                                                                            |                                                | <b>5</b>        |
| Airtightness                                                                              |                                                |                 |
| <b>Any 7 x 5 marks</b>                                                                    | <b>Sub-total</b>                               | <b>35</b>       |
| <b>Three typical dimensions</b>                                                           | 3 x 1 mark                                     | <b>3</b>        |
| <b>Draughting, accuracy, and scale</b>                                                    | <b>(excellent, good, fair)</b><br><b>8 6 4</b> | <b>8</b>        |
|                                                                                           | <b>Sub-total</b>                               | <b>11</b>       |
| <b>Part (b)</b>                                                                           |                                                |                 |
| Design detailing to link the inner and outer leaves of the cavity wall.                   |                                                |                 |
| Wall tie.                                                                                 |                                                | <b>4</b>        |
|                                                                                           | <b>Sub-total</b>                               | <b>4</b>        |
|                                                                                           | <b>Total</b>                                   | <b>50 marks</b> |

**Question 6.**

| <b>Safety in construction Studies classroom</b>                                                                                                  |                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Details</b>                                                                                                                                   | <b>Marks</b>    |
| <b>Part (a)</b>                                                                                                                                  |                 |
| <b>Two</b> specific safety precautions to be observed in the Construction Studies classroom when:                                                |                 |
| Using a scroll saw – Safety precaution 1                                                                                                         | <b>4</b>        |
| Using a scroll saw – Safety precaution 2                                                                                                         | <b>4</b>        |
| Applying a spray finish – Safety precaution 1                                                                                                    | <b>4</b>        |
| Applying a spray finish – Safety precaution 2                                                                                                    | <b>4</b>        |
| <b>Sub-total</b>                                                                                                                                 | <b>16</b>       |
| <b>Part (b)</b>                                                                                                                                  |                 |
| Describe <b>three</b> specific safety precautions that should be observed when using a pillar drill.                                             |                 |
| Safety precaution 1 and reason                                                                                                                   | <b>8</b>        |
| Safety precaution 2 and reason                                                                                                                   | <b>8</b>        |
| Safety precaution 3 and reason                                                                                                                   | <b>8</b>        |
| <b>Sub-total</b>                                                                                                                                 | <b>24</b>       |
| <b>Part (c)</b>                                                                                                                                  |                 |
| <b>Two</b> reasons why it is essential that students receive safety training before using tools and machinery in the Construction Studies room . |                 |
| Reason 1                                                                                                                                         | <b>5</b>        |
| Reason 2                                                                                                                                         | <b>5</b>        |
| <b>Sub-total</b>                                                                                                                                 | <b>10</b>       |
| <b>Total</b>                                                                                                                                     | <b>50 marks</b> |

**Question 7.**

| <b>Rear garden design</b>                                                                          |               |                 |
|----------------------------------------------------------------------------------------------------|---------------|-----------------|
| <b>Details</b>                                                                                     |               | <b>Marks</b>    |
| <b>Part (a)</b>                                                                                    |               |                 |
| <b>Two</b> ways in which a garden can contribute to a family's wellbeing.                          |               |                 |
| Example 1                                                                                          |               | <b>5</b>        |
| Example 2                                                                                          |               | <b>5</b>        |
| <b>Sub-total</b>                                                                                   |               | <b>10</b>       |
| <b>Part (b)</b>                                                                                    |               |                 |
| Show preferred location and a reason for each of the following;                                    |               |                 |
| • outdoor living space      • cooking area      • children's play area      • flowerbed and trees. |               |                 |
| Sketch                                                                                             |               | <b>8</b>        |
| Location and valid reason for outdoor living space                                                 | (3 + 2 marks) | <b>5</b>        |
| Location and valid reason for cooking area                                                         | (3 + 2 marks) | <b>5</b>        |
| Location and valid reason for children's play area                                                 | (3 + 2 marks) | <b>5</b>        |
| Location and valid reason for flowerbed and trees                                                  | (3 + 2 marks) | <b>5</b>        |
| <b>Sub-total</b>                                                                                   |               | <b>28</b>       |
| <b>Part (c)</b>                                                                                    |               |                 |
| Discuss <b>two</b> benefits of having a south facing garden.                                       |               |                 |
| Benefit 1                                                                                          |               | <b>6</b>        |
| Benefit 2                                                                                          |               | <b>6</b>        |
| <b>Sub-total</b>                                                                                   |               | <b>12</b>       |
| <b>Total</b>                                                                                       |               | <b>50 marks</b> |

**Question 8.**

| <b>Construction Terms</b>                     |                 |
|-----------------------------------------------|-----------------|
| <b>Details</b>                                | <b>Marks</b>    |
| <b>Item one</b>                               |                 |
| Primary communication of relevant information | <b>6</b>        |
| Other communication of relevant information   | <b>4</b>        |
| <b>Item two</b>                               |                 |
| Primary communication of relevant information | <b>6</b>        |
| Other communication of relevant information   | <b>4</b>        |
| <b>Item three</b>                             |                 |
| Primary communication of relevant information | <b>6</b>        |
| Other communication of relevant information   | <b>4</b>        |
| <b>Item four</b>                              |                 |
| Primary communication of relevant information | <b>6</b>        |
| Other communication of relevant information   | <b>4</b>        |
| <b>Item five</b>                              |                 |
| Primary communication of relevant information | <b>6</b>        |
| Other communication of relevant information   | <b>4</b>        |
| <b>Total</b>                                  | <b>50 marks</b> |

**Question 9.**

| <b>Farmhouse extension</b>                                                                                                   |                      |                      |                 |
|------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|-----------------|
| <b>Details</b>                                                                                                               |                      |                      | <b>Marks</b>    |
| <b>Part (a)</b>                                                                                                              |                      |                      |                 |
| Discuss <b>two</b> reasons why the homeowners may wish to build an extension to their house.                                 |                      |                      |                 |
| Reason 1                                                                                                                     |                      |                      | <b>6</b>        |
| Reason 2                                                                                                                     |                      |                      | <b>6</b>        |
| <b>Sub-total</b>                                                                                                             |                      |                      | <b>12</b>       |
| <b>Part (b)</b>                                                                                                              |                      |                      |                 |
| <b>Two</b> modifications to the proposed extension that would allow for additional natural light and access to the garden.   |                      |                      |                 |
| Modification 1                                                                                                               | <i>sketch + note</i> | <i>(8 + 5 marks)</i> | <b>13</b>       |
| Modification 2                                                                                                               | <i>sketch + note</i> | <i>(8 + 5 mark)</i>  | <b>13</b>       |
| <b>Sub-total</b>                                                                                                             |                      |                      | <b>26</b>       |
| <b>Part (c)</b>                                                                                                              |                      |                      |                 |
| Specify a suitable timber for the external cladding, and give <b>two</b> reasons why timber is a suitable cladding material. |                      |                      |                 |
| Suitable timber                                                                                                              |                      |                      | <b>4</b>        |
| Reason 1                                                                                                                     |                      |                      | <b>4</b>        |
| Reason 2                                                                                                                     |                      |                      | <b>4</b>        |
| <b>Sub-total</b>                                                                                                             |                      |                      | <b>12</b>       |
| <b>Total</b>                                                                                                                 |                      |                      | <b>50 marks</b> |



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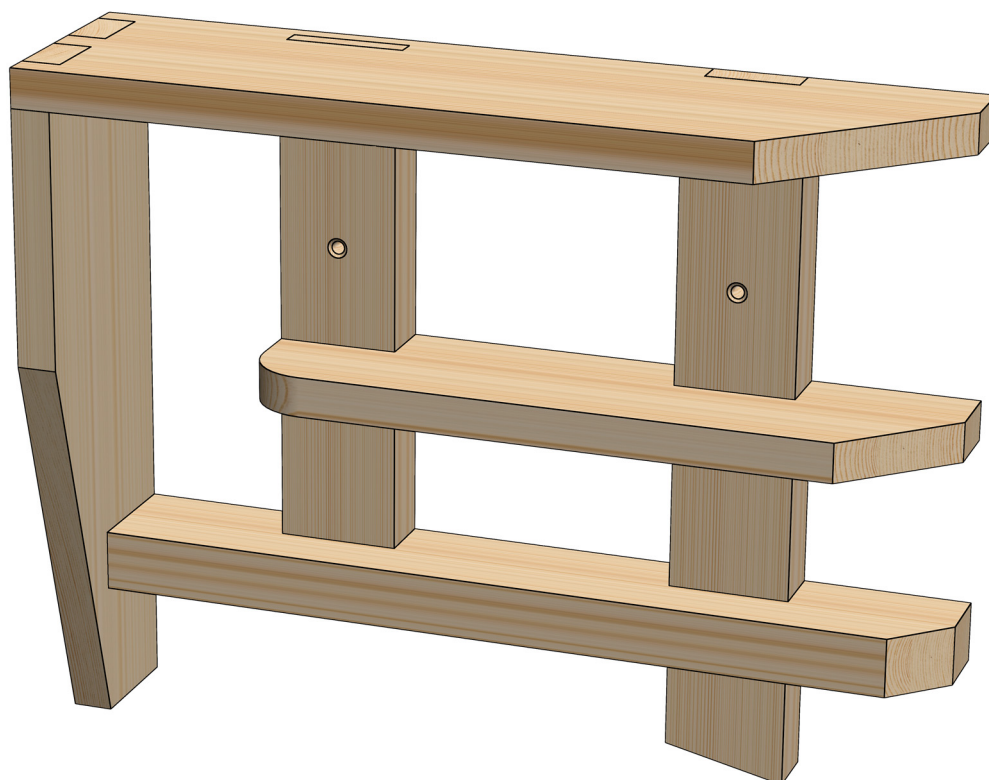
**Leaving Certificate Examination 2026**

# **Construction Studies**

## **Practical Test**

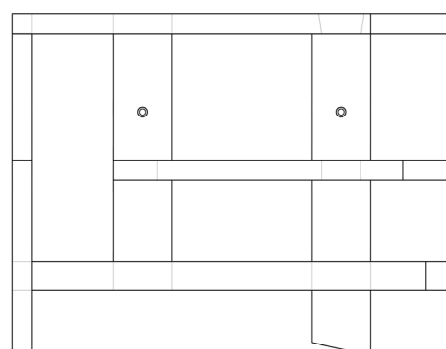
### **Common Level**

(150 marks)



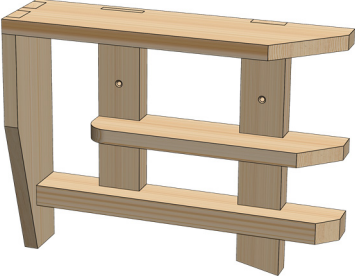
### **Marking Scheme**

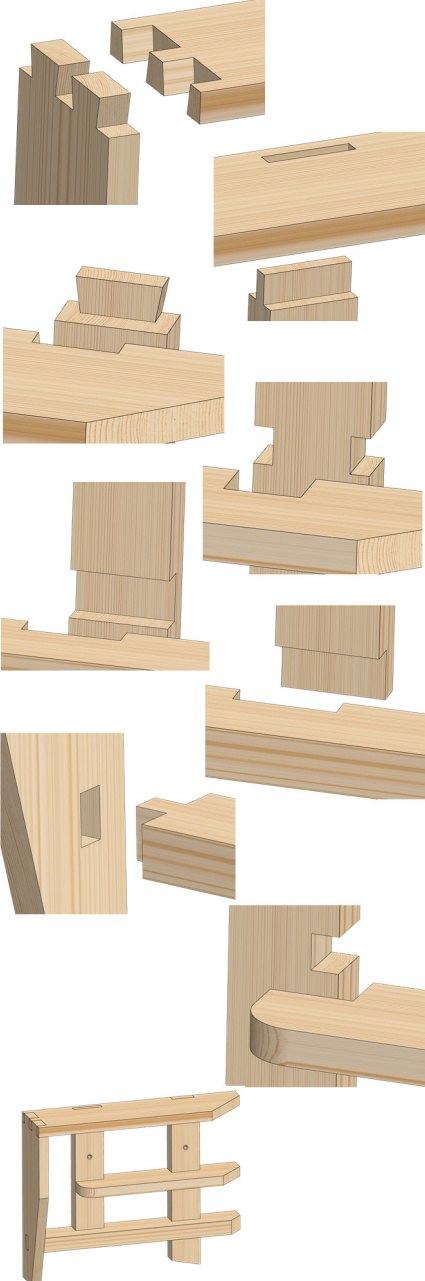
**Day 1**

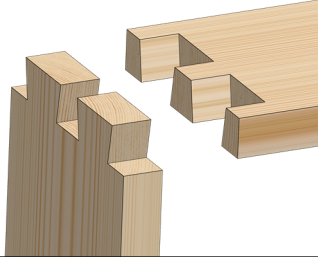
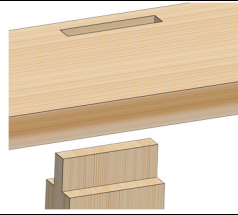
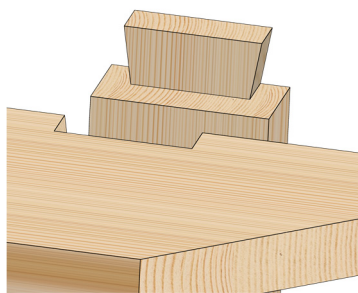
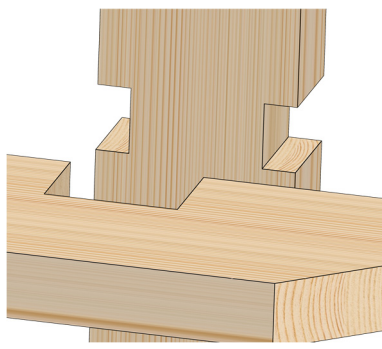
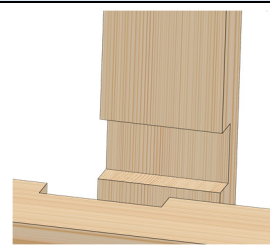


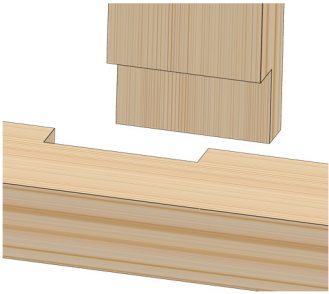
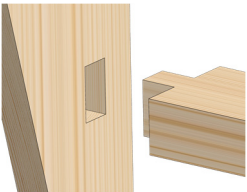
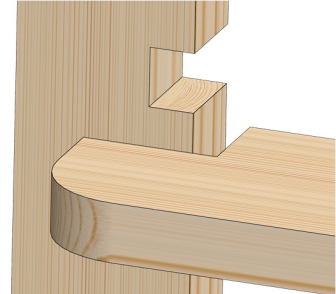
**Note:**

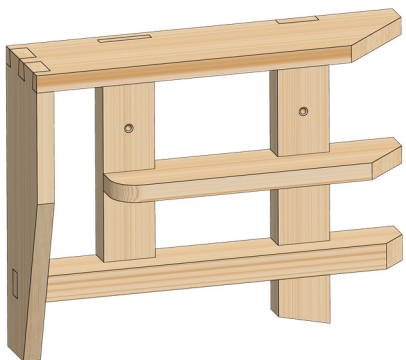
- The artefact is to be hand produced by candidates without the assistance of machinery.
- The use of a battery powered screwdriver is allowed.
- Where there is evidence of the use of machinery for a particular procedure a penalty applies.
- Component is marked out of 50% of the marks available for that procedure.

|                                                                                   |              |                                                                                                                                              |              |
|-----------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|  | <b>(i)</b>   | <b>Overall Assembly</b>                                                                                                                      | <b>Marks</b> |
|                                                                                   | a.           | Overall quality of assembled artefact                                                                                                        | <b>10</b>    |
|                                                                                   | b.           | Design and applied shaping to edge <ul style="list-style-type: none"> <li>• design <i>1 mark</i></li> <li>• shaping <i>1 mark</i></li> </ul> | <b>2</b>     |
|                                                                                   | <b>Total</b> |                                                                                                                                              | <b>12</b>    |

|                                                                                    |             |                                                                                                                                          |              |
|------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|  | <b>(ii)</b> | <b>Marking Out</b>                                                                                                                       | <b>Marks</b> |
|                                                                                    | a.          | Box dovetail <ul style="list-style-type: none"> <li>• tails <i>2 × 3 marks</i></li> <li>• pins <i>2 × 3 marks</i></li> </ul>             | <b>12</b>    |
|                                                                                    | b.          | 6 mm mortice and tenon <ul style="list-style-type: none"> <li>• mortice <i>3 marks</i></li> <li>• tenon <i>3 marks</i></li> </ul>        | <b>6</b>     |
|                                                                                    | c.          | Dovetail halving joint <ul style="list-style-type: none"> <li>• tail <i>3 marks</i></li> <li>• trench <i>3 marks</i></li> </ul>          | <b>6</b>     |
|                                                                                    | d.          | Double notch joint <ul style="list-style-type: none"> <li>• trenches <i>3 × 2 marks</i></li> </ul>                                       | <b>6</b>     |
|                                                                                    | e.          | Cross halving joint <ul style="list-style-type: none"> <li>• trenches <i>2 × 2 marks</i></li> </ul>                                      | <b>4</b>     |
|                                                                                    | f.          | Tee halving joint <ul style="list-style-type: none"> <li>• trench <i>2 marks</i></li> <li>• tenon <i>2 marks</i></li> </ul>              | <b>4</b>     |
|                                                                                    | g.          | 10 mm mortice and tenon joint <ul style="list-style-type: none"> <li>• mortice <i>3 marks</i></li> <li>• tenon <i>3 marks</i></li> </ul> | <b>6</b>     |
|                                                                                    | h.          | Single notch joint <ul style="list-style-type: none"> <li>• trench <i>2 marks</i></li> <li>• notch <i>2 marks</i></li> </ul>             | <b>4</b>     |
|                                                                                    | i.          | Slopes and curve <ul style="list-style-type: none"> <li>• slopes <i>5 × 1 mark</i></li> <li>• curve <i>1 mark</i></li> </ul>             | <b>6</b>     |
|                                                                                    |             |                                                                                                                                          | <b>54</b>    |

| Processing of Display Unit                                                          |       |                                                                                                                                                                                                                                                |       |
|-------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Box dovetail                                                                        | (iii) | Processing                                                                                                                                                                                                                                     | Marks |
|    | a.    | Tails <span style="float: right;"><i>2 × 4 marks</i></span>                                                                                                                                                                                    | 8     |
|                                                                                     | b.    | Pins <ul style="list-style-type: none"> <li>• sawing with the grain <span style="float: right;"><i>4 × 1 mark</i></span></li> <li>• paring across the grain <span style="float: right;"><i>2 × 2 marks</i></span></li> </ul>                   | 8     |
|                                                                                     | Total |                                                                                                                                                                                                                                                | 16    |
|                                                                                     |       |                                                                                                                                                                                                                                                |       |
| 6 mm mortice and tenon                                                              | (iv)  | Processing                                                                                                                                                                                                                                     | Marks |
|    | a.    | Mortice <span style="float: right;"><i>3 marks</i></span>                                                                                                                                                                                      | 3     |
|                                                                                     | b.    | Tenon <span style="float: right;"><i>4 marks</i></span>                                                                                                                                                                                        | 4     |
|                                                                                     | Total |                                                                                                                                                                                                                                                | 7     |
|                                                                                     |       |                                                                                                                                                                                                                                                |       |
| Dovetail halving joint                                                              | (v)   | Processing                                                                                                                                                                                                                                     | Marks |
|   | a.    | Tail <ul style="list-style-type: none"> <li>• sawing tail <span style="float: right;"><i>6 × 1 mark</i></span></li> </ul>                                                                                                                      | 6     |
|                                                                                     | b.    | Trench <ul style="list-style-type: none"> <li>• saw across the grain <span style="float: right;"><i>2 × 1 mark</i></span></li> <li>• paring of trench to depth <span style="float: right;"><i>2 marks</i></span></li> </ul>                    | 4     |
|                                                                                     | Total |                                                                                                                                                                                                                                                | 10    |
|                                                                                     |       |                                                                                                                                                                                                                                                |       |
| Double notch joint                                                                  | (vi)  | Processing                                                                                                                                                                                                                                     | Marks |
|  | a.    | Trench (horizontal) <ul style="list-style-type: none"> <li>• saw across the grain <span style="float: right;"><i>2 × 1 mark</i></span></li> <li>• paring of trench to depth <span style="float: right;"><i>2 marks</i></span></li> </ul>       | 4     |
|                                                                                     | b.    | Trenches (vertical) <ul style="list-style-type: none"> <li>• saw across the grain <span style="float: right;"><i>4 × 1 mark</i></span></li> <li>• paring of trenches to depth <span style="float: right;"><i>2 × 2 marks</i></span></li> </ul> | 8     |
|                                                                                     | Total |                                                                                                                                                                                                                                                | 12    |
|                                                                                     |       |                                                                                                                                                                                                                                                |       |
| Cross halving joint                                                                 | (vii) | PROCESSING                                                                                                                                                                                                                                     | Marks |
|  | a.    | Trenches <ul style="list-style-type: none"> <li>• saw across the grain <span style="float: right;"><i>4 × 1 mark</i></span></li> <li>• paring of trenches to depth <span style="float: right;"><i>2 × 2 marks</i></span></li> </ul>            | 8     |
|                                                                                     | Total |                                                                                                                                                                                                                                                | 8     |

| <b>Tee halving joint</b>                                                           | <b>(viii)</b> | <b>Processing</b>                                                                                                                                          | <b>Marks</b> |
|------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|   | a.            | Trench <ul style="list-style-type: none"> <li>• sawing across the grain <i>2 × 1 mark</i></li> <li>• paring of trenches to depth <i>2 marks</i></li> </ul> | <b>4</b>     |
|                                                                                    | b.            | Tenon <i>2 marks</i>                                                                                                                                       | <b>2</b>     |
|                                                                                    | <b>Total</b>  |                                                                                                                                                            | <b>6</b>     |
| <b>10 mm mortice and tenon</b>                                                     | <b>(ix)</b>   | <b>Processing</b>                                                                                                                                          | <b>Marks</b> |
|   | a.            | Mortice <i>3 marks</i>                                                                                                                                     | <b>3</b>     |
|                                                                                    | b.            | Tenon <i>4 marks</i>                                                                                                                                       | <b>4</b>     |
|                                                                                    | <b>Total</b>  |                                                                                                                                                            | <b>7</b>     |
| <b>Single notch joint</b>                                                          | <b>(x)</b>    | <b>Processing</b>                                                                                                                                          | <b>Marks</b> |
|  | a.            | Trench <ul style="list-style-type: none"> <li>• sawing across the grain <i>2 × 1 mark</i></li> <li>• paring of trench to depth <i>2 marks</i></li> </ul>   | <b>4</b>     |
|                                                                                    | b.            | Notch <i>2 marks</i>                                                                                                                                       | <b>2</b>     |
|                                                                                    | <b>Total</b>  |                                                                                                                                                            | <b>6</b>     |

| <b>Shaping &amp; drilling</b>                                                       | <b>(xi)</b>  | <b>Processing</b>                             | <b>Marks</b> |
|-------------------------------------------------------------------------------------|--------------|-----------------------------------------------|--------------|
|  | a.           | Short slopes <i>4 × 1 mark</i>                | <b>4</b>     |
|                                                                                     | b.           | Long slope <i>2 marks</i>                     | <b>2</b>     |
|                                                                                     | c.           | Curve <i>2 marks</i>                          | <b>2</b>     |
|                                                                                     | d.           | Drilling & counter sinking <i>2 × 2 marks</i> | <b>4</b>     |
|                                                                                     | <b>Total</b> |                                               | <b>12</b>    |

|                    |  |  |            |
|--------------------|--|--|------------|
| <b>Grand Total</b> |  |  | <b>150</b> |
|--------------------|--|--|------------|



**Coimisiún na Scrúduithe Stáit**  
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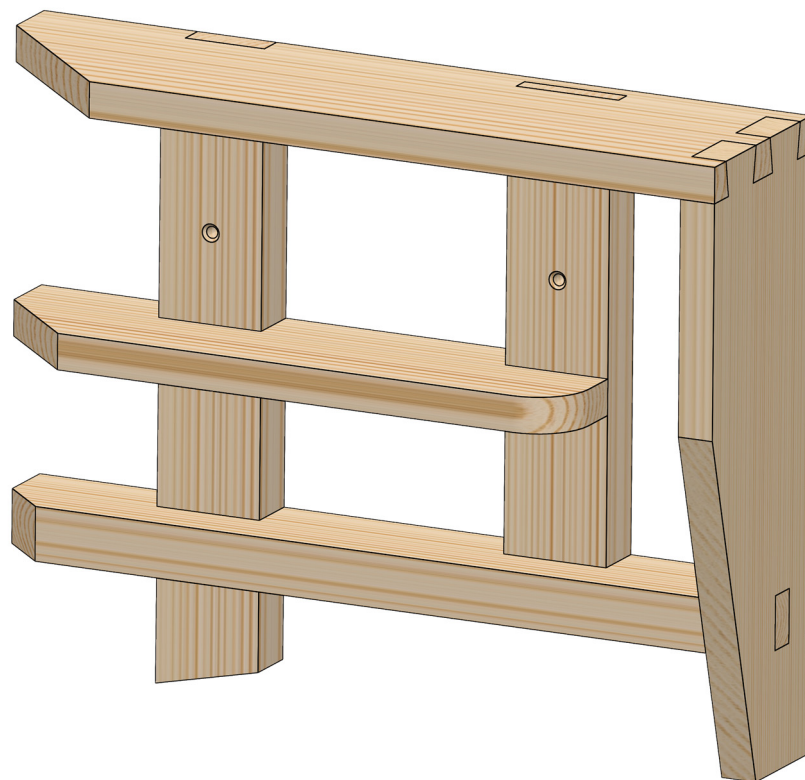
**Leaving Certificate Examination 2026**

# **Construction Studies**

## **Practical Test**

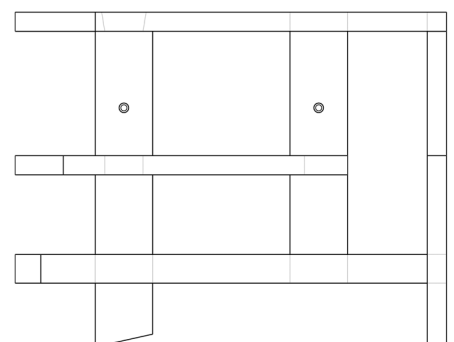
**Common Level**

(150 marks)



**Marking Scheme**

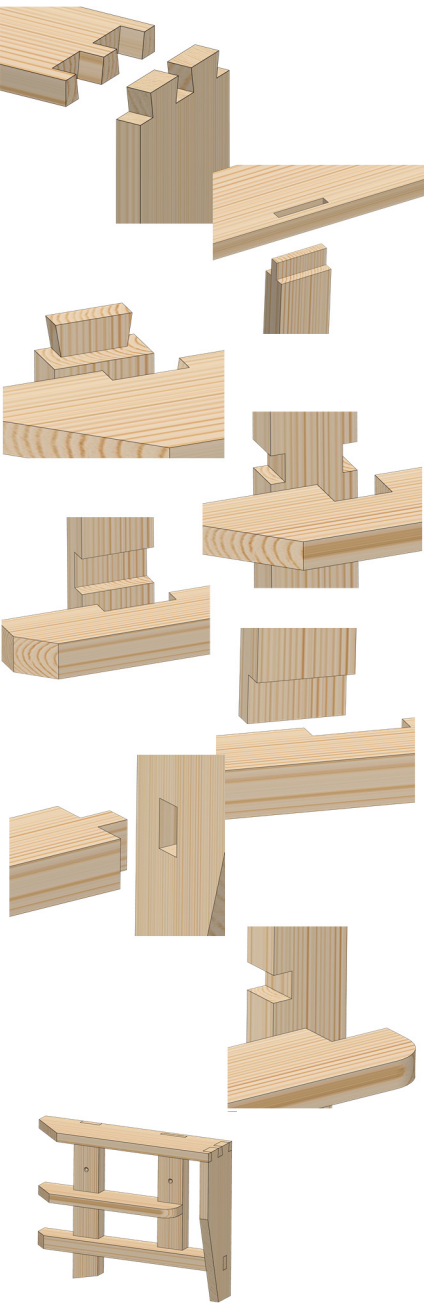
**Day 2**

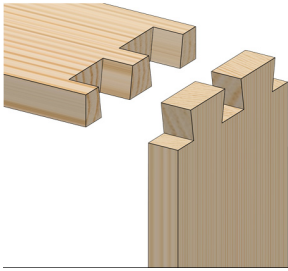
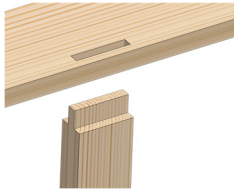
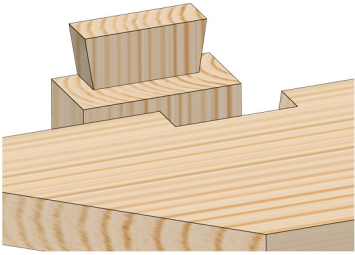
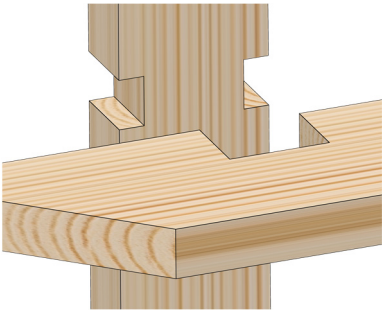
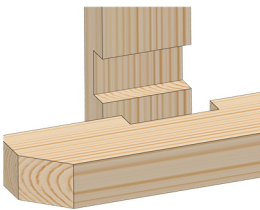


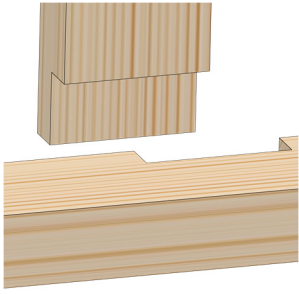
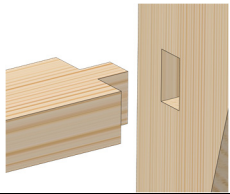
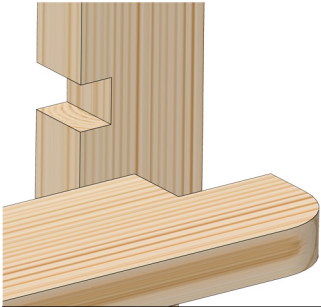
**Note:**

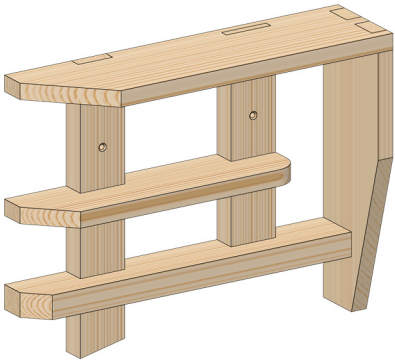
- The artefact is to be hand produced by candidates without the assistance of machinery.
- The use of a battery powered screwdriver is allowed.
- Where there is evidence of the use of machinery for a particular procedure a penalty applies.
- Component is marked out of 50% of the marks available for that procedure.

|                                                                                   |              |                                                                                                                                              |              |
|-----------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|  | <b>(i)</b>   | <b>Overall Assembly</b>                                                                                                                      | <b>Marks</b> |
|                                                                                   | a.           | Overall quality of assembled artefact                                                                                                        | <b>10</b>    |
|                                                                                   | b.           | Design and applied shaping to edge <ul style="list-style-type: none"> <li>• design <i>1 mark</i></li> <li>• shaping <i>1 mark</i></li> </ul> | <b>2</b>     |
|                                                                                   | <b>Total</b> |                                                                                                                                              | <b>12</b>    |

|                                                                                    |             |                                                                                                                                          |              |
|------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|  | <b>(ii)</b> | <b>Marking Out</b>                                                                                                                       | <b>Marks</b> |
|                                                                                    | a.          | Box dovetail <ul style="list-style-type: none"> <li>• tails <i>2 × 3 marks</i></li> <li>• pins <i>2 × 3 marks</i></li> </ul>             | <b>12</b>    |
|                                                                                    | b.          | 6 mm mortice and tenon <ul style="list-style-type: none"> <li>• mortice <i>3 marks</i></li> <li>• tenon <i>3 marks</i></li> </ul>        | <b>6</b>     |
|                                                                                    | c.          | Dovetail halving joint <ul style="list-style-type: none"> <li>• tail <i>3 marks</i></li> <li>• trench <i>3 marks</i></li> </ul>          | <b>6</b>     |
|                                                                                    | d.          | Double notch joint <ul style="list-style-type: none"> <li>• trenches <i>3 × 2 marks</i></li> </ul>                                       | <b>6</b>     |
|                                                                                    | e.          | Cross halving joint <ul style="list-style-type: none"> <li>• trenches <i>2 × 2 marks</i></li> </ul>                                      | <b>4</b>     |
|                                                                                    | f.          | Tee halving joint <ul style="list-style-type: none"> <li>• trench <i>2 marks</i></li> <li>• tenon <i>2 marks</i></li> </ul>              | <b>4</b>     |
|                                                                                    | g.          | 10 mm mortice and tenon joint <ul style="list-style-type: none"> <li>• mortice <i>3 marks</i></li> <li>• tenon <i>3 marks</i></li> </ul> | <b>6</b>     |
|                                                                                    | h.          | Single notch joint <ul style="list-style-type: none"> <li>• trench <i>2 marks</i></li> <li>• notch <i>2 marks</i></li> </ul>             | <b>4</b>     |
|                                                                                    | i.          | Slopes and curve <ul style="list-style-type: none"> <li>• slopes <i>5 × 1 mark</i></li> <li>• curve <i>1 mark</i></li> </ul>             | <b>6</b>     |
|                                                                                    |             |                                                                                                                                          | <b>54</b>    |

| Processing of Display Unit                                                          |       |                                                                                                                                                                                                                                                |       |
|-------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Box dovetail                                                                        | (iii) | Processing                                                                                                                                                                                                                                     | Marks |
|    | a.    | Tails <span style="float: right;"><i>2 × 4 marks</i></span>                                                                                                                                                                                    | 8     |
|                                                                                     | b.    | Pins <ul style="list-style-type: none"> <li>• sawing with the grain <span style="float: right;"><i>4 × 1 mark</i></span></li> <li>• paring across the grain <span style="float: right;"><i>2 × 2 marks</i></span></li> </ul>                   | 8     |
|                                                                                     | Total |                                                                                                                                                                                                                                                | 16    |
| 6 mm mortice and tenon                                                              | (iv)  | Processing                                                                                                                                                                                                                                     | Marks |
|    | a.    | Mortice <span style="float: right;"><i>3 marks</i></span>                                                                                                                                                                                      | 3     |
|                                                                                     | b.    | Tenon <span style="float: right;"><i>4 marks</i></span>                                                                                                                                                                                        | 4     |
|                                                                                     | Total |                                                                                                                                                                                                                                                | 7     |
| Dovetail halving joint                                                              | (v)   | Processing                                                                                                                                                                                                                                     | Marks |
|   | a.    | Tail <ul style="list-style-type: none"> <li>• sawing tail <span style="float: right;"><i>6 × 1 mark</i></span></li> </ul>                                                                                                                      | 6     |
|                                                                                     | b.    | Trench <ul style="list-style-type: none"> <li>• saw across the grain <span style="float: right;"><i>2 × 1 mark</i></span></li> <li>• paring of trench to depth <span style="float: right;"><i>2 marks</i></span></li> </ul>                    | 4     |
|                                                                                     | Total |                                                                                                                                                                                                                                                | 10    |
| Double notch joint                                                                  | (vi)  | Processing                                                                                                                                                                                                                                     | Marks |
|  | a.    | Trench (horizontal) <ul style="list-style-type: none"> <li>• saw across the grain <span style="float: right;"><i>2 × 1 mark</i></span></li> <li>• paring of trench to depth <span style="float: right;"><i>2 marks</i></span></li> </ul>       | 4     |
|                                                                                     | b.    | Trenches (vertical) <ul style="list-style-type: none"> <li>• saw across the grain <span style="float: right;"><i>4 × 1 mark</i></span></li> <li>• paring of trenches to depth <span style="float: right;"><i>2 × 2 marks</i></span></li> </ul> | 8     |
|                                                                                     | Total |                                                                                                                                                                                                                                                | 12    |
| Cross halving joint                                                                 | (vii) | PROCESSING                                                                                                                                                                                                                                     | Marks |
|  | a.    | Trenches <ul style="list-style-type: none"> <li>• saw across the grain <span style="float: right;"><i>4 × 1 mark</i></span></li> <li>• paring of trenches to depth <span style="float: right;"><i>2 × 2 marks</i></span></li> </ul>            | 8     |
|                                                                                     | Total |                                                                                                                                                                                                                                                | 8     |

| <b>Tee halving joint</b>                                                           | <b>(viii)</b> | <b>Processing</b>                                                                                                                                             | <b>Marks</b> |
|------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|   | a.            | <b>Trench</b> <ul style="list-style-type: none"> <li>sawing across the grain <i>2 × 1 mark</i></li> <li>paring of trenches to depth <i>2 marks</i></li> </ul> | <b>4</b>     |
|                                                                                    | b.            | <b>Tenon</b> <i>2 marks</i>                                                                                                                                   | <b>2</b>     |
|                                                                                    | <b>Total</b>  |                                                                                                                                                               | <b>6</b>     |
| <b>10 mm mortice and tenon</b>                                                     | <b>(ix)</b>   | <b>Processing</b>                                                                                                                                             | <b>Marks</b> |
|   | a.            | <b>Mortice</b> <i>3 marks</i>                                                                                                                                 | <b>3</b>     |
|                                                                                    | b.            | <b>Tenon</b> <i>4 marks</i>                                                                                                                                   | <b>4</b>     |
|                                                                                    | <b>Total</b>  |                                                                                                                                                               | <b>7</b>     |
| <b>Single notch joint</b>                                                          | <b>(x)</b>    | <b>Processing</b>                                                                                                                                             | <b>Marks</b> |
|  | a.            | <b>Trench</b> <ul style="list-style-type: none"> <li>sawing across the grain <i>2 × 1 mark</i></li> <li>paring of trench to depth <i>2 marks</i></li> </ul>   | <b>4</b>     |
|                                                                                    | b.            | <b>Notch</b> <i>2 marks</i>                                                                                                                                   | <b>2</b>     |
|                                                                                    | <b>Total</b>  |                                                                                                                                                               | <b>6</b>     |

| <b>Shaping &amp; drilling</b>                                                       | <b>(xi)</b>  | <b>Processing</b>                                        | <b>Marks</b> |
|-------------------------------------------------------------------------------------|--------------|----------------------------------------------------------|--------------|
|  | a.           | <b>Short slopes</b> <i>4 × 1 mark</i>                    | <b>4</b>     |
|                                                                                     | b.           | <b>Long slope</b> <i>2 marks</i>                         | <b>2</b>     |
|                                                                                     | c.           | <b>Curve</b> <i>2 marks</i>                              | <b>2</b>     |
|                                                                                     | d.           | <b>Drilling &amp; counter sinking</b> <i>2 × 2 marks</i> | <b>4</b>     |
|                                                                                     | <b>Total</b> |                                                          | <b>12</b>    |

|                    |  |  |            |
|--------------------|--|--|------------|
| <b>Grand Total</b> |  |  | <b>150</b> |
|--------------------|--|--|------------|



**Coimisiún na Scrúduithe Stáit**  
*State Examinations Commission*

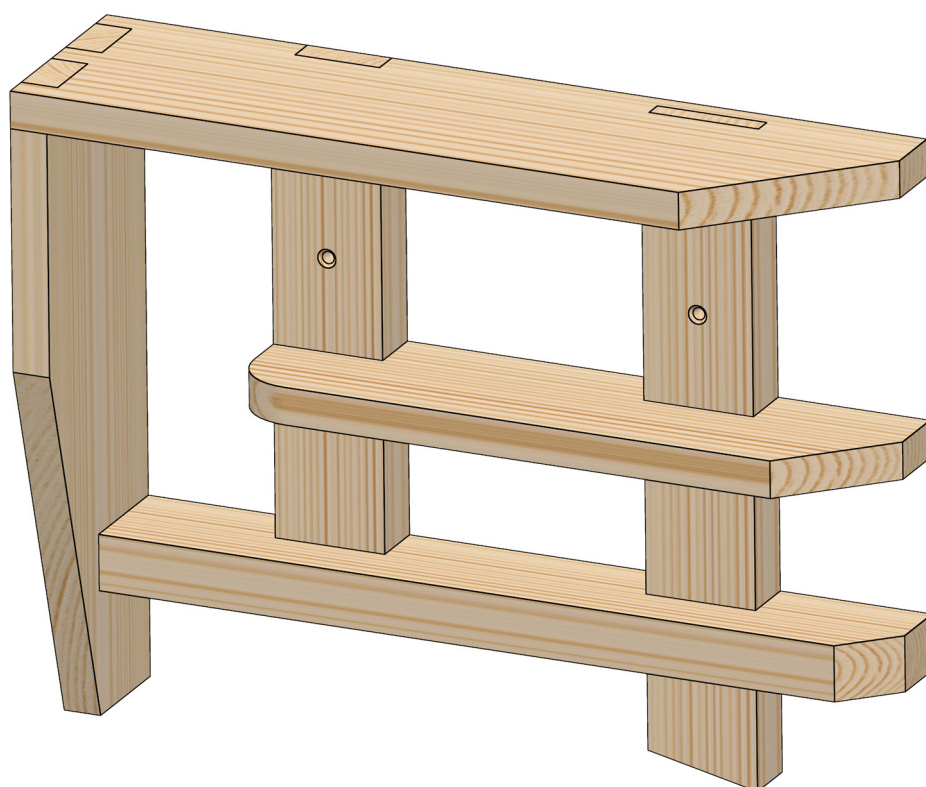
**Leaving Certificate Examination 2026**

# **Construction Studies**

## **Practical Test**

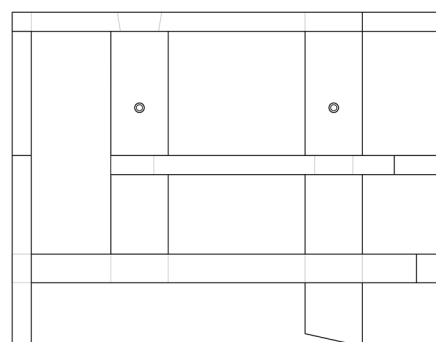
### **Common Level**

(150 marks)



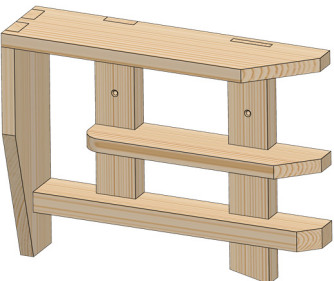
### **Marking Scheme**

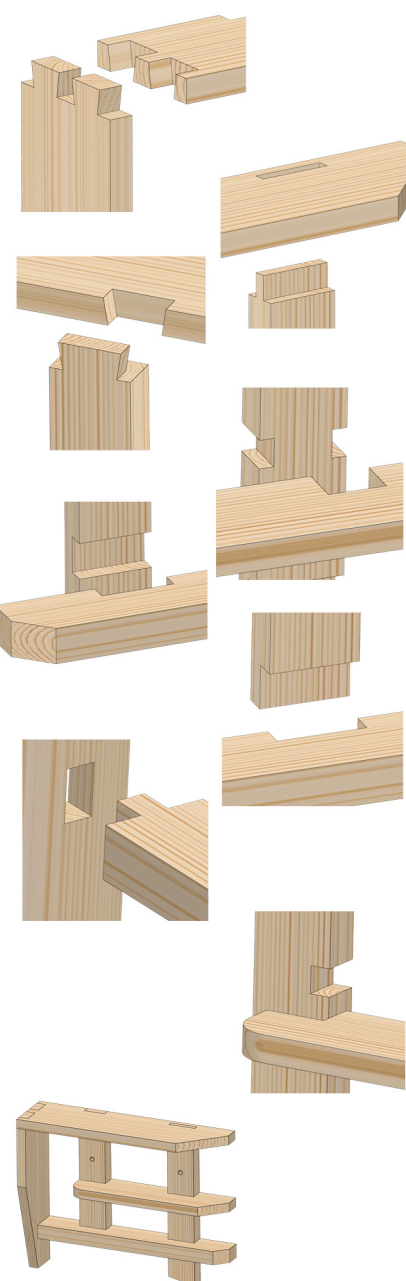
**Day 3**

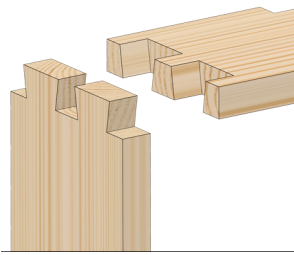
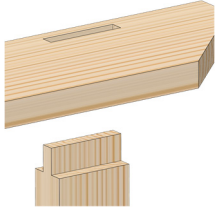
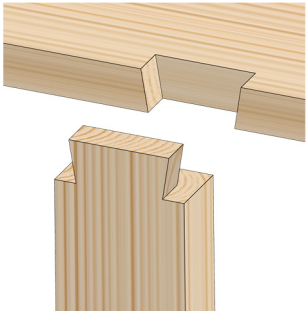
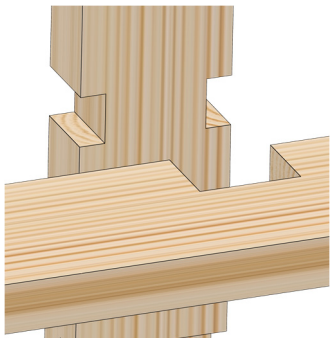
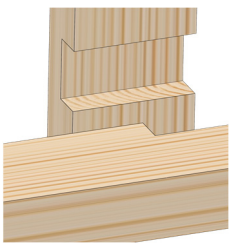


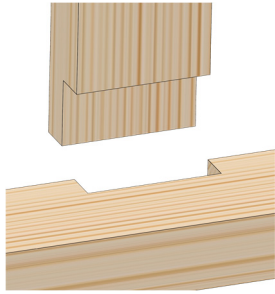
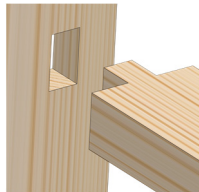
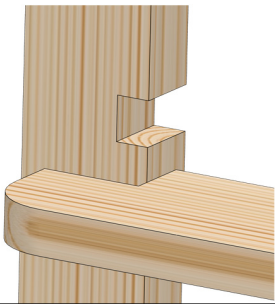
**Note:**

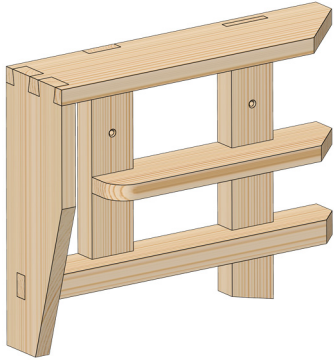
- The artefact is to be hand produced by candidates without the assistance of machinery.
- The use of a battery powered screwdriver is allowed.
- Where there is evidence of the use of machinery for a particular procedure a penalty applies.
- Component is marked out of 50% of the marks available for that procedure.

|                                                                                   |              |                                                                                                                                              |              |
|-----------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|  | <b>(i)</b>   | <b>Overall Assembly</b>                                                                                                                      | <b>Marks</b> |
|                                                                                   | a.           | Overall quality of assembled artefact                                                                                                        | <b>10</b>    |
|                                                                                   | b.           | Design and applied shaping to edge <ul style="list-style-type: none"> <li>• design <i>1 mark</i></li> <li>• shaping <i>1 mark</i></li> </ul> | <b>2</b>     |
|                                                                                   | <b>Total</b> |                                                                                                                                              | <b>12</b>    |

|                                                                                    |             |                                                                                                                                          |              |
|------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|  | <b>(ii)</b> | <b>Marking Out</b>                                                                                                                       | <b>Marks</b> |
|                                                                                    | a.          | Box dovetail <ul style="list-style-type: none"> <li>• tails <i>2 × 3 marks</i></li> <li>• pins <i>2 × 3 marks</i></li> </ul>             | <b>12</b>    |
|                                                                                    | b.          | 6 mm mortice and tenon <ul style="list-style-type: none"> <li>• mortice <i>3 marks</i></li> <li>• tenon <i>3 marks</i></li> </ul>        | <b>6</b>     |
|                                                                                    | c.          | Dovetail halving joint <ul style="list-style-type: none"> <li>• tail <i>3 marks</i></li> <li>• trench <i>3 marks</i></li> </ul>          | <b>6</b>     |
|                                                                                    | d.          | Double notch joint <ul style="list-style-type: none"> <li>• trenches <i>3 × 2 marks</i></li> </ul>                                       | <b>6</b>     |
|                                                                                    | e.          | Cross halving joint <ul style="list-style-type: none"> <li>• trenches <i>2 × 2 marks</i></li> </ul>                                      | <b>4</b>     |
|                                                                                    | f.          | Tee halving joint <ul style="list-style-type: none"> <li>• trench <i>2 marks</i></li> <li>• tenon <i>2 marks</i></li> </ul>              | <b>4</b>     |
|                                                                                    | g.          | 10 mm mortice and tenon joint <ul style="list-style-type: none"> <li>• mortice <i>3 marks</i></li> <li>• tenon <i>3 marks</i></li> </ul> | <b>6</b>     |
|                                                                                    | h.          | Single notch joint <ul style="list-style-type: none"> <li>• trench <i>2 marks</i></li> <li>• notch <i>2 marks</i></li> </ul>             | <b>4</b>     |
|                                                                                    | i.          | Slopes and curve <ul style="list-style-type: none"> <li>• slopes <i>5 × 1 mark</i></li> <li>• curve <i>1 mark</i></li> </ul>             | <b>6</b>     |
|                                                                                    |             |                                                                                                                                          | <b>54</b>    |

| Processing of Display Unit                                                          |       |                                                                                                                                                                                                                                            |       |
|-------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Box dovetail                                                                        | (iii) | Processing                                                                                                                                                                                                                                 | Marks |
|    | a.    | Tails <span style="float: right;"><i>2 × 4 marks</i></span>                                                                                                                                                                                | 8     |
|                                                                                     | b.    | Pins <ul style="list-style-type: none"> <li>sawing with the grain <span style="float: right;"><i>4 × 1 mark</i></span></li> <li>paring across the grain <span style="float: right;"><i>2 × 2 marks</i></span></li> </ul>                   | 8     |
|                                                                                     | Total |                                                                                                                                                                                                                                            | 16    |
| 6 mm mortice and tenon                                                              | (iv)  | Processing                                                                                                                                                                                                                                 | Marks |
|    | a.    | Mortice <span style="float: right;"><i>3 marks</i></span>                                                                                                                                                                                  | 3     |
|                                                                                     | b.    | Tenon <span style="float: right;"><i>4 marks</i></span>                                                                                                                                                                                    | 4     |
|                                                                                     | Total |                                                                                                                                                                                                                                            | 7     |
| Dovetail halving joint                                                              | (v)   | Processing                                                                                                                                                                                                                                 | Marks |
|   | a.    | Tail <ul style="list-style-type: none"> <li>sawing tail <span style="float: right;"><i>6 × 1 mark</i></span></li> </ul>                                                                                                                    | 6     |
|                                                                                     | b.    | Trench <ul style="list-style-type: none"> <li>saw across the grain <span style="float: right;"><i>2 × 1 mark</i></span></li> <li>paring of trench to depth <span style="float: right;"><i>2 marks</i></span></li> </ul>                    | 4     |
|                                                                                     | Total |                                                                                                                                                                                                                                            | 10    |
| Double notch joint                                                                  | (vi)  | Processing                                                                                                                                                                                                                                 | Marks |
|  | a.    | Trench (horizontal) <ul style="list-style-type: none"> <li>saw across the grain <span style="float: right;"><i>2 × 1 mark</i></span></li> <li>paring of trench to depth <span style="float: right;"><i>2 marks</i></span></li> </ul>       | 4     |
|                                                                                     | b.    | Trenches (vertical) <ul style="list-style-type: none"> <li>saw across the grain <span style="float: right;"><i>4 × 1 mark</i></span></li> <li>paring of trenches to depth <span style="float: right;"><i>2 × 2 marks</i></span></li> </ul> | 8     |
|                                                                                     | Total |                                                                                                                                                                                                                                            | 12    |
| Cross halving joint                                                                 | (vii) | PROCESSING                                                                                                                                                                                                                                 | Marks |
|  | a.    | Trenches <ul style="list-style-type: none"> <li>saw across the grain <span style="float: right;"><i>4 × 1 mark</i></span></li> <li>paring of trenches to depth <span style="float: right;"><i>2 × 2 marks</i></span></li> </ul>            | 8     |
|                                                                                     | Total |                                                                                                                                                                                                                                            | 8     |

| <b>Tee halving joint</b>                                                           | <b>(viii)</b> | <b>Processing</b>                                                                                                                                             | <b>Marks</b> |
|------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|   | a.            | <b>Trench</b> <ul style="list-style-type: none"> <li>sawing across the grain <i>2 × 1 mark</i></li> <li>paring of trenches to depth <i>2 marks</i></li> </ul> | <b>4</b>     |
|                                                                                    | b.            | <b>Tenon</b> <i>2 marks</i>                                                                                                                                   | <b>2</b>     |
|                                                                                    | <b>Total</b>  |                                                                                                                                                               | <b>6</b>     |
| <b>10 mm mortice and tenon</b>                                                     | <b>(ix)</b>   | <b>Processing</b>                                                                                                                                             | <b>Marks</b> |
|   | a.            | <b>Mortice</b> <i>3 marks</i>                                                                                                                                 | <b>3</b>     |
|                                                                                    | b.            | <b>Tenon</b> <i>4 marks</i>                                                                                                                                   | <b>4</b>     |
|                                                                                    | <b>Total</b>  |                                                                                                                                                               | <b>7</b>     |
| <b>Single notch joint</b>                                                          | <b>(x)</b>    | <b>Processing</b>                                                                                                                                             | <b>Marks</b> |
|  | a.            | <b>Trench</b> <ul style="list-style-type: none"> <li>sawing across the grain <i>2 × 1 mark</i></li> <li>paring of trench to depth <i>2 marks</i></li> </ul>   | <b>4</b>     |
|                                                                                    | b.            | <b>Notch</b> <i>2 marks</i>                                                                                                                                   | <b>2</b>     |
|                                                                                    | <b>Total</b>  |                                                                                                                                                               | <b>6</b>     |

| <b>Shaping &amp; drilling</b>                                                       | <b>(xi)</b>  | <b>Processing</b>                                        | <b>Marks</b> |
|-------------------------------------------------------------------------------------|--------------|----------------------------------------------------------|--------------|
|  | a.           | <b>Short slopes</b> <i>4 × 1 mark</i>                    | <b>4</b>     |
|                                                                                     | b.           | <b>Long slope</b> <i>2 marks</i>                         | <b>2</b>     |
|                                                                                     | c.           | <b>Curve</b> <i>2 marks</i>                              | <b>2</b>     |
|                                                                                     | d.           | <b>Drilling &amp; counter sinking</b> <i>2 × 2 marks</i> | <b>4</b>     |
|                                                                                     | <b>Total</b> |                                                          | <b>12</b>    |

|                    |  |  |            |
|--------------------|--|--|------------|
| <b>Grand Total</b> |  |  | <b>150</b> |
|--------------------|--|--|------------|



Leaving Certificate Examination  
**Construction Studies**  
Practical Coursework  
Marking Scheme

| Marking Criteria |                                                                                                                                                                                                                                                                                                 | Marks      |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>A</b>         | <b>Planning of Project</b> <ul style="list-style-type: none"><li>• Coursework selection, exploration and management planning</li><li>• Investigation and relevant research</li><li>• Design development through annotated sketches, with working drawing(s) and/or models</li></ul>             | <b>40</b>  |
| <b>B</b>         | <b>Report</b> <ul style="list-style-type: none"><li>• Sequence of manufacture including photographic evidence and/or sketches</li><li>• Critical appraisal and conclusions from coursework experience</li><li>• Overall quality of communication and presentation of the design folio</li></ul> | <b>35</b>  |
| <b>C</b>         | <b>Manipulative Skills</b> <ul style="list-style-type: none"><li>• Marking-out of materials</li><li>• Processing and assembly of materials</li><li>• Range and depth of skills evident in the artefact</li></ul>                                                                                | <b>40</b>  |
| <b>D</b>         | <b>Completion of Project</b> <ul style="list-style-type: none"><li>• Artefact well finished</li><li>• Creativity and appropriateness of coursework</li><li>• Overall quality, coherence and presentation of coursework</li></ul>                                                                | <b>35</b>  |
| <b>Total</b>     |                                                                                                                                                                                                                                                                                                 | <b>150</b> |

**Note:** *While the general headings and marks above will largely remain the same, breakdowns may vary for any given year.*

