



HM Government

T-LEVELS

T Level Technical Qualification in
Building Services Engineering for
Construction

VERSION 2.1 SPECIMEN ASSESSMENT
MATERIALS

Core Examination 1

08/05/2026



Contents

Examinations

Core Examination 1:
Question paper

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Surname	Centre Number	Candidate Number
First name(s)		

**T LEVEL TECHNICAL QUALIFICATION
IN BUILDING SERVICES ENGINEERING –
CORE EXAMINATION 1**

2 hours 30 minutes

**SPECIMEN ASSESSMENT
MATERIALS**

INSTRUCTIONS TO CANDIDATES

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

You may use a pencil for graphs and diagrams only.

You may use a non-programmable scientific calculator.

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

Answer **all** questions.

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

INFORMATION FOR CANDIDATES

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

The total number of marks available is **110**.

Your responses must be clear, accurate and well presented.



For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	3	
2.	2	
3.	3	
4.	3	
5.	2	
6.	5	
7.	3	
8.	2	
9.	4	
10.	2	
11.	4	
12.	5	
13.	6	
14.	5	
15.	5	
16.	4	
17.	5	
18.	6	
19.	3	
20.	5	
21.	9	
22.	12	
23.	12	
Total	110	

Answer **all** questions.

Section A

- | | | |
|---|------------|--------------------------|
| <p>1. State three employer responsibilities under the Health and Safety at Work Act (HASAWA).</p> <p>•</p> <p>•</p> <p>•</p> | <p>[3]</p> | <p>Examiner
only</p> |
| <p>2. List two potential consequences of not adhering to safety conscious procedures.</p> <p>•</p> <p>•</p> | <p>[2]</p> | |
| <p>3. State three welfare provisions that must be provided during construction work.</p> <p>•</p> <p>•</p> <p>•</p> | <p>[3]</p> | |
| <p>4. Efficiency and aesthetics are two benefits of good design. Name three other benefits.</p> <p>•</p> <p>•</p> <p>•</p> | <p>[3]</p> | |

5. State **two** relevant laws or guidance documents relating to listed buildings and heritage sites.

[2]

Examiner
only

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6. You are asked to carry out a risk assessment in a workplace. The first step is looking around the workplace to identify any hazards.

[5]

Summarise the remaining steps to complete a risk assessment in the correct order.

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7. Describe the actions that should be taken for tools or equipment that fail safety checks.

[3]

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8. Explain **two** ways in which using renewable and recyclable resources can make a project more sustainable.

[2]

Examiner
only

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9. For the following approved documents, explain their purpose when making penetrations through a building's structure or fabric:

[4]

Part A – Structure

Part B – Fire Safety

Part C – Site preparation and resistance to contaminants and moisture

Part E – Resistance to sound

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10. Describe **two** methods of tendering.

[2]

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11. Describe **two** types of offsite construction methods and give an advantage of each.

[4]

Examiner
only

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12. Describe the main responsibility of each of the following roles on a construction project.

[5]

- Retrofit assessor
- Clerk of works
- Quantity surveyor
- BIM designer
- Civil engineer

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13. A health and safety inspector visits a construction site and sees that some workers are not wearing the correct PPE, unsafe ladders are being used, and materials are being stored in a way that blocks emergency exits.

[6] Examiner
only

Explain **three** powers the health and safety inspector has, and how each one could be used to deal with the specific issues found on this site.

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14. A large construction company is bidding for a contract to upgrade building services engineering systems in a retail building. The work will involve several sub-contractors.

[5] Examiner
only

Explain **five** ways the company can ensure safety-conscious procedures are followed by all sub-contractors during the delivery of the contract.

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15. You need to install alarm components, such as keypads and sensors, onto a plasterboard wall.

[5] Examiner only

Describe **five** steps you would take to fix the components securely

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16. A new eco-friendly community centre is being designed. The architect wants to use sustainable and renewable materials to reduce the building's environmental impact.

[4]

Suggest **five** different materials that could be used and what they can be used for.

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17. A gas engineer has completed the installation of several new boilers in a school during a refurbishment project.

[5] Examiner only

Explain the actions a gas engineer should take when handing over the newly installed boiler system.

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18. A construction contractor has been invited by a national house-building company to tender for a large project to build 42 new homes.

[6] Examiner
only

Explain **three** types of documentation the contractor will need to produce during the tendering process. For each, describe its purpose in the context of this large-scale housing development.

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19. A new education building is planned for a brownfield site in a busy city centre, previously used for housing.

[3] Examiner
only

Explain **three** considerations that must be made when planning utilities for this project.

Your response should relate to the site location and former use.

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20. A Building Services Engineering (BSE) organisation has been asked to tender for a gas servicing contract with a local authority.

[5] Examiner only

The local authority has requested an average cost per job.

To assist with the tendering process the following information has been provided:

Hourly rate	£35
Average job duration	2 Hours
Travel time per job	30 minutes
Average miles per job	12 miles
Mileage rate	45p per mile
Average material costs per job	£24.60

Calculate the missing information in the table below:

Average total time for job	
Cost for labour/travel time	
Cost for Mileage	
Profit margin 15%	
Total cost	

- 21.** Analyse, using examples, how being sustainable during a construction project can meet environmental performance measures.

PRELIMINARY

- 22.** You are part of a team who are responsible for the design and build of a public sector construction project including new leisure facilities and a community centre.

This is a complex, multi-trade project that is to be designed and built within strict time and financial limits.

Evaluate the purpose and benefits of Building Information Modelling (BIM) in relation to collaboration between designers and trades for this project, discussing the levels of BIM that are to be applied.

SPECIMEN

23. A customer is seeking advice on micro-renewable energy systems for heating and hot water for their house.

[12]

Examiner
only

House type	End of terrace
Location	Southwest of England
Roof	South facing
Rooms	Large kitchen Two bedrooms Family bathroom
Garden	Wraparound
Hot water and heating	Gas boiler in kitchen Hot water cylinder on first floor

Discuss the suitability of **two** different micro-renewable systems for the property. Your answer should include advantages and disadvantages relating to the operating principles, system requirements and controls.

SPECIMEN

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END OF PAPER

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