

END TERM 3 2026

GRADE 10

BUILDING CONSTRUCTION

MARKING SCHEME & TEACHER'S GUIDE

TOTAL MARKS: 80

CURRICULUM COVERAGE

The paper is based on the Grade 10 Building Construction Curriculum Design. It samples Foundation of Building Construction (Introduction to Building Construction and Site Preparation), Related Drawing (Isometric Drawing), Building Construction Processes (Concreting, Foundations, Timbering, Foundation Walling and Ground Floors), and Building Services (Plumbing Tools/Equipment, Plumbing Materials and Pipework). The curriculum document places emphasis on practical work, working drawings, tools and equipment, safety, and construction procedures.

CURRICULUM TRACEABILITY

Q	Sub-strand	Assessed learning focus	Level	Marks
1	1.1 Introduction	Functions of buildings	Understand	4
2	1.2 Site Preparation	Site selection and waste disposal	Understand	5
3	2.1 Isometric Drawing	Characteristics, uses and interpretation	Understand/Apply	4
4	1.2 Site Preparation	Setting out and tools	Apply	5
5	1.2 Site Preparation	Safety during site preparation	Apply	5
6	3.2 Foundations	Strip foundation components and trench safety	Apply/Analyse	8
7	3.1 Concreting	Constituents, compaction and safety	Understand/Apply	7
8	2.1 Isometric Drawing	Interpretation and use of isometric projection	Apply	5
9	3.4 Foundation Walling	Tools and masonry bonding	Understand/Apply	5
10	3.3 Timbering	Materials, circumstances and safety	Apply/Analyse	8
11	3.5 Ground Floors	Floor types, components and damp-proofing	Understand/Apply	10
12	4.3 Pipework	Pipework identification, material selection and jointing	Apply	8

MARKING SCHEME

1. Marking guide

Any four valid functions: shelter/protection; accommodation for residential, commercial or social purposes; storage; working space; other function consistent with the curriculum — 1 mark each.

2. Marking guide

(a) Any two: suitability of soil/ground; drainage; accessibility; safety; availability of services; environmental considerations; space/topography — 1 mark each.

(b) Any three: recycling; designated landfill/collection points; controlled disposal/incineration where appropriate; reuse; other safe designated disposal method — 1 mark each.

3. Marking guide

Isometric drawing represents three dimensions on a single drawing using isometric axes; ordinary 2-D representation shows length and width without the same pictorial three-dimensional effect — 2 marks.

(a) Any two: three axes at equal angular spacing; parallel edges remain parallel; equal-scale representation along isometric axes — 1 mark each.

(b) Any two: communicating shape/form; visualising construction components; presenting building details; aiding interpretation of a proposed structure — 1 mark each.

4. Marking guide

(a) Any three: accurate positioning of the building; correct dimensions; correct orientation/alignment; avoiding boundary encroachment; ensuring foundations are placed according to the working drawing — 1 mark each.

(b) Any two: tape measure; builder's square; pegs; builder's line; ranging rod; level; other appropriate setting-out tool — 1 mark each.

5. Marking guide

Any five: use PPE; identify hazards; handle tools correctly; keep site clear; dispose of waste in designated areas; protect workers/public; maintain safe access; observe road/site safety; avoid dumping on roads/reserves/water sources — 1 mark each.

6. Marking guide

- (a) A — ground level/topsoil line; B — masonry/foundation wall; C — concrete strip foundation — 1 mark each for intended labelled component.
- (b) D — depth/vertical trench dimension or trench/base as represented; award 2 marks for correct interpretation and function, e.g. providing the required depth/support for the foundation.
- (c) Any three: provide safe access; support trench sides where necessary; remove loose soil safely; keep spoil away from trench edge; keep water out; use PPE; inspect trench before work — 1 mark each.

7. Marking guide

- (a) Cement, fine aggregate (sand), coarse aggregate and water — 1 mark each.
- (b) Removes trapped air/voids and increases density/strength of concrete — 1 mark.
- (c) Any two: wear PPE; handle cement safely; use tools correctly; maintain safe mixing/transport routes; avoid skin/eye exposure; keep work area orderly — 1 mark each.

8. Marking guide

- (a) Accept correct identification of the three visible faces/features shown by the labelled arrows — 1 mark each.
- (b) Any one explained reason: gives a clear pictorial representation; assists visualisation; communicates shape/details of construction components — 2 marks.

9. Marking guide

- (a) Any three: plumb bob; builder's line; spirit level; builder's square; tape measure; trowel; level; other appropriate masonry tool/equipment — 1 mark each.
- (b) Any two: increases wall stability/strength; distributes loads; ties masonry units together; reduces continuous vertical joints — 1 mark each.

10. Marking guide

- (a) Any two: unstable/loose soil; deep trenches; risk of trench collapse; waterlogged/weak ground; conditions where sides cannot stand safely — 1 mark each.
- (b) Any three: timber boards/planks; struts; walers; braces/props; pegs or other appropriate timbering components — 1 mark each.
- (c) Any three explained precautions: inspect trench; install adequate supports; keep spoil/load away from edge; provide safe access; do not work under unsupported sides; use PPE; monitor water/ground condition — 1 mark each.

11. Marking guide

- (a) Solid ground floor is constructed directly on/over prepared ground; suspended floor is supported above ground on joists or another supporting structure with a void beneath — 4 marks for clear comparison.
- (b) Any three: hardcore/fill; sand blinding; damp-proof membrane; concrete slab; screed; floor finish — 1 mark each.
- (c) Any three: prevents rising damp/moisture; protects finishes/materials; improves hygiene/durability; prevents water damage to the building — 1 mark each.

12. Marking guide

- (a) A — straight pipe; B — 90-degree bend; C — joint/fitting — 1 mark each.
- (b) Any two: intended use/service; durability; corrosion resistance; pressure/temperature requirements; material properties; cost/availability; compatibility with fittings — 1 mark each.
- (c) Any three: measure and mark; cut pipe squarely; remove burrs/clean ends; prepare/align joint and fitting; apply appropriate joining method/material; assemble securely; test for leaks — 1 mark each.

MARKING PRINCIPLES

Award credit for technically correct alternatives that satisfy the stated learning outcome. For procedure questions, marks should reflect the correct sequence and safe practice. For diagrams, assess identification and technical interpretation rather than artistic quality unless drawing quality is explicitly requested.

TOTAL-MARK VERIFICATION

Question Paper = 80 marks. Marking Scheme = 80 marks. Diagram-based questions are integrated into Questions 6, 8 and 12 and contribute 21 marks, representing the required visual/technical assessment emphasis for a technical subject.

SOURCE ALIGNMENT

The curriculum design identifies Building Construction as a technical and engineering subject and lists practical work, written tests, observation, projects, portfolios and rubrics among suggested assessment approaches. It also explicitly includes working drawings, tools/equipment, construction procedures and safety across the strands used in this paper.

