

7908-001/501 Level 3 Plastering (Solid)

Version 1.0 – November 2016

Sample Marking Scheme

The correct responses to the multiple questions are in **BOLD**.

- 1 What **must** be checked by a building control officer when constructing a new extension?
 - a) Height of existing slab.
 - b) Depth of foundation.**
 - c) Type of block work.
 - d) Texture of render.

- 2 Which organization can certify and provide certification on sustainable living?
 - a) BIM.
 - b) RICS.
 - c) RIBA.
 - d) BREEAM.**

- 3 What type of insulation would be fixed between the rafters when converting a loft into a bedroom?
 - a) Polyisocyanurate.**
 - b) Mineral wool.
 - c) Polystyrene.
 - d) Vermiculite.

- 4 What type of plasterboard can be used to increase the insulation value of a property?
 - a) Sound block.
 - b) Vapour check.
 - c) Thermal laminate.**
 - d) Moisture resistant.

- 5 What type of construction drawing would be referred to when fixing lathes to ceiling joists?
 - a) Component.
 - b) Reflective.**
 - c) Elevation.
 - d) Section.

- 6 Which category would be classed as a Grade 1 listed building?
 - a) Local importance.
 - b) Regional importance.
 - c) European importance.
 - d) Historic importance.**

7 Where would guidelines on mixing and applying premixed plasters be found?

- a) **Manufactures' information.**
- b) Detailed specification.
- c) Contracts of works.
- d) Bill of quantities.

8 What term is used to describe the process of applying plaster to EML?

- a) Floating.
- b) **Pricking up.**
- c) Scratching
- d) Dubbing out.

9 Which external render requires a butter coat when forming a finish?

- a) Ashlar.
- b) Tyrolean.
- c) **Dry dash.**
- d) Scrap texture.

10 What materials would be used for restoration plastering work?

- a) Hydrated lime and coarse sand.
- b) Lime, sand and mortar.
- c) **Hydraulic lime and coarse sand.**
- d) Lime, sand and cement.

11

List **three** health and safety regulations that cover construction work.

(3 marks)

Answer

Answers could include any **three** answers from the list below, **one** mark for each:

- Health and Safety at Work Act.
- Reporting Injuries.
- Diseases and Dangerous Occurrences Regulations (RIDDOR).
- Control of Substances Hazardous to Health (COSHH).
- Construction (Design and Management) (CDM) regulations.
- Provision and Use of Work Equipment Regulations (PUWER).
- Manual Handling Operations Regulations.
- Personal Protective Equipment (PPE) at Work Regulations.
- Work at Height Regulations.
- Control of Noise at Work Regulations.
- Control of Vibration at Work Regulations.
- Electricity at Work Regulations.
- Lifting Operations and Lifting Equipment Regulations (LOLER).

12

Explain why an estimate is preferred to a quote.

(2 marks)

Answer

Explanation could include:

An estimate is preferred as it is a rough cost and can be subject to change if there are unforeseen changes/developments and estimates can vary depending on the supplies/products required.

13

Explain how to improve a building's thermal performance.

(3 marks)

Answer

Explanation could include any **three** from the list below for **three** marks:

- Fit external wall insulation to the exterior walls.
- Install thermal laminates to the internal walls.
- Install loft insulation.
- Install triple glazing.
- Install cavity insulation.
- Install double glazing.

14

Name **four** types of arches that can be run in-situ.

(4 marks)

Answer

Answers could include any **four** answers from the list below, **one** mark for each:

- Elliptical arch.
- Semi-circular arch.
- Lancet.
- Segmental.
- Gothic.

15

Explain why short breaks and stop returns are run off and produced on a bench when running internal mouldings in-situ.

(6 marks)

Answer

Explanation could include:

Short breaks and stop returns are produced on a bench when there is limited space to run the moulding in situ due to the length of the stock and the position of the profile on the running mould.

Running the moulding down on a bench and producing the stop end returns will save time and produce a much higher quality of workmanship. This is because this method will eliminate the need for any hand modelling works to the moulding section and mitres of the cornice being undertaken in situ.

16

Describe the **two** methods that can be used to core out when running a large internal in-situ moulding.

(2 marks)

Answer

Description should include the following **two** points for **four** marks:

- Scotch bracketing timber laths bedded into plaster material.
- Timber keels fixed to the background to form a fixing for EML or timber laths.

17

State the **four** areas an internal solid floating coat should be checked with a straight edge prior to tiling.

(4 marks)

Answer

Answers should include the **four** answers below, **one** mark for each:

- Along the skirting lines.
- Along the ceiling lines.
- Vertical at edges/internal angles/external angles.
- Diagonally.

18

Explain how to set out and fix standard angle beads to a window wall that contains a window board to ensure equal margins. (5 marks)

Answer

Explanation could include the **five** points listed below for **five** marks:

- Measure equal dimensions on window jambs/frame.
- Set out dimensions using a square on windowsill.
- Check straightness of wall on windowsill with straight edge and mark appropriate floating coat thickness (intersecting).
- Fix and bed both vertical standard angle beads from the fixed mark on windowsill and ensure they are plumb.
- Fix and bed bead level at soffit/head in line ensuring no steps.

19

Describe how to set out and apply an internal floating coat to a solid curved wall. (5 marks)

Answer

Description could include the **five** points listed below for **five** marks:

- Establish the centre point and set out radius rule.
- Set dots to lower part of wall using radius rule.
- Set dots to upper part of wall ensuring plumb from lower dots.
- Form top and bottom screeds.
- Fill in between screeds, rule and key.

20

Identify **four** backgrounds that require preparing for external solid rendering. (4 marks)

Answer

Answers could include any **four** answers from the list below, **one** mark for each:

- Concrete.
- Composite.
- Timber.
- Glazed brickwork.
- Engineering bricks.
- Common bricks.
- Clay bricks.
- Existing rendered surface.
- Solid painted.
- Stonework.

21

Explain how using premixed factory batched render compares to using traditional hand mixed render. (6 marks)

Answer

Explanation could cover any **six** from the topics listed below:

- Speed.
- Cost.
- Quality.
- Storage.
- Training.
- Application.
- Mixing.
- Product guarantee/technical support.
- Various colours.
- Contains specified additives (silicon/polymer/enhancers/fibres).

22

Describe how faults may occur in external rendering. (4 marks)

Answer

Description could include any **four** below for **four** marks:

Crazing cracks on render surface – caused by excessive suction and drying of surface.

Shrinkage cracks in the render – caused by using mixes that are too strong.

Wide spread cracks – caused by subsidence or irregular mixes being used.

Blowing of render from background – caused by applying strong mixes on weak surfaces or poor preparation, no key.

Surface dusting of render material – caused by applying render in direct sunlight or weak mixes.

Colour deterioration on render surface – poor gauging of mixes or using premixed materials that are out of date.

Render failing to set – rendering in freezing temperature.

23

The front elevation of a mid-terrace house has been stripped both internally and externally. The walls are constructed in lightweight block, and there is no insulation within the cavity. The client has specified that they require a suitable wet plastering system to be used on the internal walls. The client also wants to improve the thermal performance and appearance of the exterior of the building.

Discuss how to carry out the plastering and insulating work in order to improve the energy efficiency targets.

(12 marks)

Answer

Indicative content

- types of insulating method
- types of insulating materials
- types of plastering materials
- type of backing and finishing plasters and beads
- suitable external renders and accessories
- benefits of using specific products and systems
- remedial work.

Band 1 (1 – 4 marks)

Basic discussion, providing a limited description of materials and methods. No recommendations made to specific materials. No discussion of installation processes.

In order to access higher marks

To access higher marks, explanation made to specific materials but without support/justification towards energy efficiency.

Band 2 (5 – 8 marks)

Fair discussion, providing a basic description of materials and methods. Some links to energy saving, but did not recommend a specific system.

In order to access higher marks

To access higher marks, limited discussion on the processes to install various systems.

Band 3 (9 – 12 marks)

Comprehensive and clear discussion, providing an in-depth description of materials, methods and processes. In-depth comparison of various products and systems. Valid recommendations made, using discussion as support for decisions. Comprehensive justification of energy efficiency plastering systems.

In order to access higher marks

To access higher marks, identified areas of remedial work that will be required to the exterior surfaces of the building.