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7907-501 MARCH 2022
Level 3 Advanced Technical Diploma in Painting and Decorating (450)

Level 3 Painting and Decorating – Theory exam

If provided, stick your candidate barcode label here.

Wednesday 23 March 2022
09:30 – 11:45

Candidate name (first, last)

First

Last

Candidate enrolment number

Date of birth (DDMMYYYY)

Gender (M/F)

Assessment date (DDMMYYYY)

Centre number

Candidate signature and declaration*

- If additional answer sheets are used, enter the additional number of pages in this box. ➡ 0 0
- Before taking the examination, **all candidates** must check that their barcode label is in the appropriate box. Incorrectly placed barcodes may cause delays in the marking process.
- Please ensure that you staple additional answer sheets to the **back** of this answer booklet, clearly labelling these with your full name, enrolment number, centre number and qualification number in BLOCK CAPITALS.
- All candidates need to use a **black/blue** pen. **Do not** use a pencil or gel pen, unless otherwise instructed.
- If provided with source documents, these documents **will not** be returned to City & Guilds, and will be shredded. Do not write on the source documents.

***I declare that I had no prior knowledge of the questions in this examination and that I will not divulge to any person any information about the questions.**

You should have the following for this examination
- a pen with blue or black ink
- a calculator

General instructions
This question paper is the property of City & Guilds Limited and should be returned after the examination.
- This examination contains **26** questions consisting of 70 marks. Answer **all** questions.
- Section A – consists of 10 multiple choice questions, each carrying 1 mark.
  - Indicate your response (a, b, c or d) in the space provided.
- Section B – consists of **16** structured/ short answer questions.
  - Answer the questions in the space provided.
  - The marks for each question are shown in brackets.
  - Show all your workings for questions with calculations.

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Section A

1 What design function does the **building control department** of the local authority oversee?

a) Environmental.
b) Construction.
c) Waste management.
d) Highways.

Response: _____

2 What measurement is used to calculate the quantity of skirting required for a project?

a) Area.
b) Weight.
c) Length.
d) Volume.

Response: _____

3 What should be included in a construction specification in relation to materials?

a) Costs.
b) Descriptions.
c) Quantities.
d) Schedules.

Response: _____

4 What is the **main** benefit of using Building Information Modelling in construction projects?

a) To create and manage computer drawings.
b) To create and manage manual drawings.
c) To create and manage information and data.
d) To create and manage project costs.

Response: _____

5 What is the **minimum** height of the top handrail on a scaffold?

a) 850 mm
b) 900 mm
c) 950 mm
d) 1000 mm

Response: _____

6 Which material is the **most appropriate** to cut on when hand cutting stencil card?

a) Plywood.
b) Hardboard.
c) Metal.
d) Glass.

Response: _____

7 Which piece of equipment is used to produce pore like marks when graining?

a) Rubber comb.
b) Flogger.
c) Mottler.
d) Palette knife.

Response: _____

8 What does the term **cissing** refer to in marbling?

a) Opening up the surface with solvent.
b) Using chalk to remove finger marks.
c) Using white spirit to remove grease.
d) Creating a defect free background.

Response: _____

9 What does the acronym '**LEV**' stand for when related to airless spraying?

a) Low Extraction Volume.
b) Local Extraction Volume.
c) Low Extraction Ventilation.
d) Local Extraction Ventilation.

Response: _____

10 What does a Ford Cup measure when used in spraying?

a) Opacity.
b) Viscosity.
c) Porosity.
d) Density.

Response: _____

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Section B

11 Name **two** types of tender involved in the process of tendering for work in Construction. (2 marks)

12 Name **two** cost categories that would be included when preparing a construction quote. (2 marks)

13 State **two** types of renewable energy. (2 marks)

14 State **two** factors to consider when selecting suitable access equipment. (2 marks)

15 Name **two** different types of filling used in brushes for softening wood grain effects. (2 marks)

16 Name **two** items that are used to draw vein like effects in the marbling process. (2 marks)

17 List **two** functions of an airless spray tip when spraying emulsion paint. (2 marks)

18 Describe **one** equipment fault that can occur if an airless spray system is set up **incorrectly**. (2 marks)

19 Describe the **key** differences between outline and detailed planning permission. (4 marks)

20 Describe **two** types of water harvesting/recycling systems that can be used to reduce water consumption in buildings. (4 marks)

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21 a) Explain how the height of a proprietary tower is calculated. (2 marks)

b) Explain **two** ways of how the height of a proprietary tower can be **increased**. (2 marks)

22 Identify **four** application defects that can occur when applying a repeating border stencil to a surface coated with vinyl matt emulsion. (4 marks)

23 Describe **three** processes used when applying gold leaf to flat painted wooden surface. (6 marks)

24 Provide examples of the types of masking material/equipment that could be used to protect the items in table 1 during airless spraying in an office environment. (4 marks)

Items	Masking materials/equipment
Furniture	
Ceiling and wall light fittings	
Computer work stations	
Floors	

Table 1

25 Describe **three** stages of the Pressure Relief Procedure before airless spraying. (6 marks)

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26 The front wall area of a large, refurbished office building, as shown in Figure 1, requires redecoration.

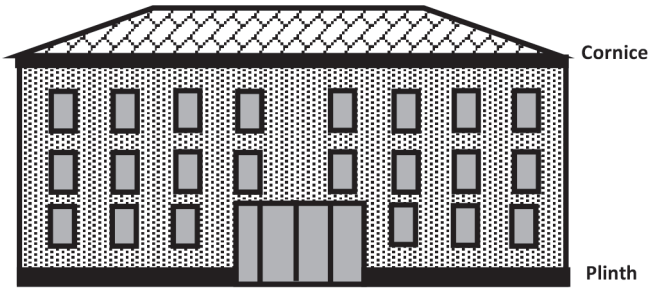

Figure 1

The building is located on a busy road and is unoccupied at the present time.

The building is 26 m long and 8 m high and is of a roughcast blockwork construction.

The surface has been previously painted and is in reasonable condition although there are a couple of large cracks above main entrance. There are areas of flaking paint and water staining particularly around the bottom of the wall due to a previous damp problem that has now been cured.

The wall area is to be finished with 3 coats of a smooth, water-based masonry paint. Bituminous paint is to be applied to both the plinth area as well as the cornice. All windows and doors are UPVC and glass which should be left unpainted.

Discuss **each** of the stages of work to be carried out in the redecoration of this building. (12 marks)

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End of examination