

7907-001/501

Level 3 Painting and Decorating

Version 1.0 – November 2016

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

- 1 What is the purpose of a Gantt chart when planning construction work?
 - a) To list all costings of individual tasks.
 - b) To record information of repetitive tasks.
 - c) To illustrate task start and finish times and their duration.**
 - d) To control operations and highlight all hazardous tasks on site.

- 2 What term is used to describe money held back until the end of the defects liability period?
 - a) Retention sum.**
 - b) Penalty clause.
 - c) Investment sum.
 - d) Staged payment.

- 3 Which technique used in manual drafting shows a 2D representation of a 3D shape?
 - a) Isometric projection.
 - b) Orthographic projection.**
 - c) Two point perspective drawing.
 - d) Three point perspective drawing.

- 4 What is the **main** purpose of a toolbox talk?
 - a) To provide information on work defects.
 - b) To provide information on annual leave.
 - c) To provide information on staff benefits.
 - d) To provide information on safety issues.**

- 5 What PPE **must** be worn when erecting a mobile tower?
 - a) Safety boots, ear defenders and hi-viz jacket.
 - b) Safety boots, grip gloves and dust mask.
 - c) Safety boots, grip gloves and hard hat.**
 - d) Gauntlets, fall arrest system and hard hat.

- 6 What process can lead to the de-lamination of a duplex wallcovering?
 - a) Poor folding.
 - b) Over soaking.**
 - c) Under soaking.
 - d) Poor trimming.

- 7 What is the name of the process of transferring a stencil design onto a plate material using a series of small holes?
- a) Tracing.
 - b) Printing.
 - c) Chalking.
 - d) Pouncing.**
- 8 What type of fixing will aid with securing a heavy decorative plaster cornice?
- a) Brass screws.**
 - b) Hanger bolts.
 - c) Masonry nails.
 - d) Galvanised staples.
- 9 What is the **most** suitable tape to mask a curved structure?
- a) Duct.
 - b) Crepe.**
 - c) Interior.
 - d) Low tack.
- 10 What defect occurs when spraying a HVLP spray too far away from the surface?
- a) Pitting.
 - b) Banding.
 - c) Dry spray.**
 - d) Orange peel.

11	Explain why a permit to work is used.	(2 marks)
<p>Answers</p> <p>1 mark for each of the following; maximum two marks;</p> <ul style="list-style-type: none"> To authorise certain personnel to carry out work within a specified time frame To set out precautions required to complete work safely based on risk assessment To control work to prevent major accidents. 		

12		Area of walls	42.0 m ²		
		Area of ceiling	27 m ²		
		Paint cost / ltr tin	£8		
		Labour cost	£2.10 / m ²		
		VAT	20%		
		Coverage	12 m ² / ltr		
	Table 1				
<p>A domestic bedroom requires re-painting with vinyl matt emulsion. Two coats will be required on all surfaces. Using the details provided in Table 1, prepare a quote for the customer.</p>					(3 marks)

<p>Answer</p> <p>Total area to be painted (42+ 27) x 2 coats = 138 m² 1 mark</p> <p>Paint cost 138 m² divided by 12 = 11.5 litres, therefore 12 litres required @ £8 per ltr = £96 1 mark</p> <p>Labour cost 138 m² x £2.20 = £303.60</p> <p>Total labour and material cost £303.60 + £96 = £399.60</p> <p>VAT @ 20% of £399.60 = £ 79.92</p> <p>Total inc. VAT 399.60 + 79.92 = £479.52 1 mark</p>	
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13	Identify three methods for reducing energy use and the impact of buildings on the environment.	(3 marks)
<p>Answer</p> <p>Renewable energy sources; solar, wind turbines, photovoltaic, ground or air source (1 mark).</p> <p>Design features; air tightness, lighting, water harvesting (1 mark).</p> <p>Locally sourced and sustainable materials (1 mark).</p>		

14	a) Identify two scaffold fittings used to connect two tubular scaffold poles together.	(2 marks)
	b) Explain how a tubular scaffold safe working load can be increased.	(2 marks)
<p>Answers</p> <p>a)</p> <p>1 mark for each of the following; maximum two marks;</p> <ul style="list-style-type: none"> • single coupler • double coupler • swivel coupler • sleeve coupler • joint pin. <p>b)</p> <p>Increase the amount of standards/ transoms to reduce the board span, thereby reducing the load bearing on each standard/ transom which allows for increasing the safe working load.</p> <p>OR</p> <p>Increase the board thickness which increases the load bearing capacity and is more rigid across the platform to withstand extra working load.</p> <p>(max 2 marks)</p>		

15	Explain why a fabric wide width vinyl is best suited for papering a long hotel corridor.	(3 marks)
<p>Answer</p> <p>Explanation could include:</p> <ul style="list-style-type: none"> • A fabric-backed wide width vinyl is more durable due to its thick composition and woven backing so it can withstand increased traffic through the corridor. • It is overlapped and spliced, therefore enabling quicker application as time is not wasted matching pattern. • The increased width of the fabric reduces the number of potential visible joints as each sheet will cover more surface area. 		

16	Identify three characteristics of Lincrusta wallcovering.	(3 marks)
<p>Answer</p> <p>1 mark for each characteristic; maximum 3 marks;</p> <ul style="list-style-type: none"> • deep embossed wallcovering • environmentally friendly • made from natural products • hard wearing. 		

17	Explain why it is important to hang the longest length first when applying a wallcovering to a staircase.	(4 marks)
<p>Answer</p> <p>Explanation could include:</p> <ul style="list-style-type: none"> • You can dictate where the first length is to be placed to determine butt joint positions and limit unnecessary trimming making it easier to hang • Ensures wallcovering pattern is balanced between the top floor ceiling and ground floor ceiling of the staircase to achieve pleasing effect at both floors • Easier to hang the first long length to a plumb line, than to butt it up against a shorter length. This ensures that the first and adjacent lengths are perfectly plumb so that the pattern does not run out. 		

18	a) Identify items used to burnish metal leaf. b) Explain why they are used.	(2 marks) (4 marks)
<p>Answer</p> <p>a)</p> <p>1 mark for each of the following:</p> <ul style="list-style-type: none"> • Cotton wool • Polished agate stone <p>b)</p> <p>Explanation could include:</p> <ul style="list-style-type: none"> • The soft nature of the cotton wool helps remove skewings and polishes the surface to provide the shiny effect • The hard polished surface feature of the agate stone smooths and blends in the seams of the metal leaf which helps hide the imperfections. 		

19	State how two specialist brushes in the production of wood graining are used.	(2 marks)
<p>Answer</p> <p>1 mark for each of the following; maximum 2 marks:</p> <ul style="list-style-type: none"> • Rubbing in brushes (paint brush stubby) – used to rub in colour • Flogging brush (extra-long, thin bristle) – used to create pore marks • Dragging brush (thin short or long bristle) – used to create straight grain • Softeners (hog’s or badger’s hair) – used to blend colour and extend or soften grain • Sable pencils and writers (artistic brush) – used to create grain (heart and straight) • Mottler (thin, short handle) – used to create a mottled effect • Cutter (short bristle, thin, short handle) – used to wipe out grain • Overgrainers (pencil, fan) – used to create wide over-grain lines. 		

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20	Explain how an oak grain effect can be achieved.	(2 marks)
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Answer

1 mark for each – explanation could cover the following; maximum 2 marks;

- Using a flogging brush in the direction of the grain to create pore marks
- Using a dragging brush, to create a straight grain
- Using a series of combs of different grades, on their own or with cloth, to create a straight grain
- Using a hog's hair softener to blend colour and extend or soften the grain
- Using a thin, short handled mottler creating a mottled effect
- Using a short bristle, thin, short handle cutter, veining horn or thumb nail with a cloth to wipe out grain or produce silvering in quarter cut oak
- Using a pencil over-grainer or fan brush to create distinct grain lines.

21	Explain how a decorative centrepiece is centralised onto a ceiling prior to fixing.	(4 marks)
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Answer

1 mark for each step – explanation of each step must be provided for full mark.

- Use a chalk line to snap two lines from corner to corner diagonally to highlight centre of the ceiling
- Find the radius of the centrepiece to enable registration marks to be placed
- Measure along each chalk line out from the centre and make four registration marks to help align the centrepiece
- Align the edge of the centrepiece so that it touches each of the four registration marks to accurately centralise the centrepiece.

22	Identify two points to consider prior to fixing gypsum coving.	(2 marks)
<p>Answer</p> <p>1 mark for each of the following; maximum 2 marks;</p> <ul style="list-style-type: none"> • Surface condition of area the coving is to be fixed to (wallpaper removal, sealing or bonding agents required) • Identify any ceiling height variation • Weight of coving • Lengths of coving section • Marking the position of coving (ceiling or wall chalk line) • Keying of contact areas with crisscross • Correct mitres, and length checked • Adhesive suitable for application • Number of people required to fix • Access equipment suitable for task • Protection of surrounding area. 		

23	A workshop containing wall lights, work benches and laminate flooring requires painting using airless spray. Explain how to best protect these items from the airless spray?	(3 marks)
<p>Answer</p> <p>1 mark for each; explanation of each must be provided for full mark.</p> <ul style="list-style-type: none"> • Wall light fittings – masking tape and thin polythene sheeting as this is lightweight and will not damage the fittings • Work bench – dustsheets with polythene backing as the material is impervious to over-spray • Laminate flooring – hardboard to prevent impact damage as it has a high density and self-adhesive plastic to ensure it stays in place so that it prevents gaps from opening. 		

24	a) Explain how paint is prepared for use in a HVLP spray unit. b) Identify four defects that can occur from preparing the paint incorrectly.	(3 marks) (4 marks)
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Answers

a)

1 mark for each step – explanation of each step must be provided for full mark.

- Stir the paint to ensure the components are thoroughly dispersed
- Ensure each batch is thinned as per recommendations and is the same throughout; to ensure consistency use either a 'ford cup' or 'ratio stick'
- Strain the paint to ensure any contaminants are removed and decant into spray cup.

b)

1 mark for each of the following; maximum 4 marks.

- Fluid tip blockage (no material flow)
- Defective spray pattern (slow material flow)
- Pulsating spray (spitting)
- Particles in paint
- Runs and sags
- Clouding
- Orange peel
- Poor coverage
- Loss of gloss
- Colour inconsistency.

25	<p>The dining area in a local restaurant requires re-decoration. The ceiling has three plain plaster centrepieces around the light fittings. Three of the walls in the restaurant are brush painted brickwork. The base of one of the external brickwork walls has a white powdery substance on it. The remaining papered large wall has a stained hardwood fire surround on it. The centrepieces require a replacement with a more ornate look. The three brickwork walls must have a spray finish. The papered wall is to be finished with a flock wallcovering and the fire surround marbled in Rouge Royale.</p> <p>The restaurant aims to be closed for only five days during the re-decoration. All work must be completed before the fully booked re-opening.</p> <p>Measurements: the dining room is 6 m x 10 m and a ceiling height of 3 m.</p> <p>Discuss how the dining area should be re-decorated to meet customer requirements.</p>	(12 marks)
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Answer

Indicative content

Candidate's responses may include, but is not limited to:

Health and Safety

- Complete risk assessment and method statement
- Selection of appropriate access equipment
- PPE & RPE.

List of tools

- Preparation tools
- Architectural finishes tools
- Specialist wallcovering tools
- Airless spray setup
- Marbling tools.

Ceiling

- Isolation of power
- Centrepiece removal
- Positioning and fixing of decorative centrepiece.

Brick walls

- Identification and treatment of efflorescence
- Masking
- LEV
- Airless spray.

Papered wall

- Paper removal
- Preparation
- Specialist adhesives
- Handling and application of flock wallcovering.

Fire surround

- Preparation of hardwood
- Ground coat colour
- Stains and technique.

Sequence of work

- Health and Safety
- Preparing work area
- Replacement of centrepieces
- Stripping of walls
- Disposal of waste
- Preparation of walls
- Treatment of efflorescence
- Masking area
- Airless spraying of walls

- Marbling fire surround
- Preparation of wallcoverings
- Hanging of wallcoverings
- Clearing of job.

Band 1 (1 – 4 marks)

Response is basic and explanations of how the tasks needed to be carried out are not clear. Lists stages of decoration without much detail. No description of safety implications. Possibly misinterprets tasks, stages out of sequence and lists some tools, materials and finishes – but no explanation of how they are connected and why they are used. No acknowledgement of efflorescence.

In order to access higher marks, the response will include;

Brief description of basic safety implications and items of PPE.

Band 2 (5 – 8 marks)

Response shows some description of the tasks needed to be carried out. Provides some details of stages of decoration, masking, tools, materials and finishes, but does not make links between them. Description of basic safety implications. Some description on fixing methods and applications. Description on type of spray to be used

In order to access higher marks, the response will include;

Details of stages of decoration, tools, materials and finishes with some links between them. Acknowledges treatment required of efflorescence but does not recognise cause and how to rectify. Explanation of basic safety implications, LEV, RPE and access equipment, material storage, tools and colours.

Band 3 (9 – 12 marks)

Response shows good understanding of the tasks needed to be carried out. Evaluates and analyses stages of decoration, tools, materials and finishes by discussing advantages and disadvantages. Adequately discusses links between them. Makes a recommendation but without justification. An in-depth detailed description of safety implications for centrepiece replacement and airless spray use. Linked to stages of decoration, tools, masking, spray setup, materials and finishes. Use of correct PPE/ RPE and addresses LEV with recommendations.

In order to access higher marks, the response will include;

Strong attention to detail through a cohesive and thorough discussion. Response shows clear understanding of the integration of decorating components. Incorporates and justifies recommendation.