Level 2 Technical Certificate in Painting and Decorating

7907-20
Version Sample September 2016

Question Paper Pack

About City & Guilds

City & Guilds is the UK's leading provider of vocational qualifications, offering over 500 awards across a wide range of industries, and progressing from entry level to the highest levels of professional achievement. With over 8500 centres in 100 countries, City & Guilds is recognised by employers worldwide for providing qualifications that offer proof of the skills they need to get the job done.

City & Guilds Group

The City & Guilds Group is a leader in global skills development. Our purpose is to help people and organisations to develop their skills for personal and economic growth. Made up of City & Guilds, City & Guilds Kineo, The Oxford Group and ILM, we work with education providers, businesses and governments in over 100 countries.

Equal opportunities

City & Guilds fully supports the principle of equal opportunities and we are committed to satisfying this principle in all our activities and published material. A copy of our equal opportunities policy statement is available on our website.

Copyright

The content of this document is, unless otherwise indicated, © City & Guilds Limited and may not be copied, reproduced or distributed without prior written consent.

However, approved City & Guilds centres and candidates studying for City & Guilds qualifications may photocopy this document free of charge and/or include a PDF version of it on centre intranets on the following conditions:

- centre staff may copy the material only for the purpose of teaching candidates working towards a City & Guilds qualification, or for internal administration purposes
- candidates may copy the material only for their own use when working towards a City & Guilds qualification

The *Standard Copying Conditions* (which can be found on our website) also apply.

Please note: National Occupational Standards are not © City & Guilds Limited. Please check the conditions upon which they may be copied with the relevant Sector Skills Council.

Publications

City & Guilds publications are available from our website or from our Publications Sales department, using the contact details shown below.

Every effort has been made to ensure that the information contained in this publication is true and correct at the time of going to press. However, City & Guilds' products and services are subject to continuous development and improvement and the right is reserved to change products and services from time to time. City & Guilds cannot accept liability for loss or damage arising from the use of information in this publication.

City & Guilds
1 Giltspur Street
London EC1A 9DD
www.cityandguilds.com
centresupport@cityandguilds.com

Contents

1	**Assessment**	**2**
2	**Mark scheme**	**18**
2.1	Multiple choice	18

1 Assessment

1

Which timber sheet material may be affected by delamination?

a) MDF.
b) OSB.
c) Plywood.
d) Hardboard.

2

Mordant solution is used to prepare which bare surface?

a) Softwood.
b) Brickwork.
c) Plasterboard.
d) Non-ferrous metal.

3

Which finish has the **most** pigment content?

a) Gloss.
b) Primer.
c) Eggshell.
d) Undercoat.

4

What is the **most** likely effect weather conditions can have on a painted surface as it is drying?

a) If left to dry in direct sunlight it could cause blooming.
b) If left to dry in direct sunlight it could cause bleeding.
c) If left to dry in damp weather conditions it could cause blooming.
d) If left to dry in damp weather conditions it could cause bleeding.

5

Why would damage to a previously painted surface be filled proud of the surface?

a) This method of filling requires less rubbing down.
b) This would prevent the filler falling out.
c) It will allow for shrinkage on drying.
d) It seals in loose and flaking dust.

6

What does the symbol in Figure 1 represent?

Figure 1

a) Ready pasted.
b) Paste the wall.
c) Paste the paper.
d) Wet removal required.

7

What type of adhesive has a low solid - high water content?

a) PVA.
b) Starch.
c) Cellulose.
d) Starch ether.

8

What name is given to a colour scheme made up of shades and tints of black and white?

a) Analogous.
b) Achromatic.
c) Monochromatic.
d) Complementary.

9

What brush should be used to remove brush marks from a wet ground colour?

a) Stencil.
b) Stipple.
c) Dragging.
d) Softening.

10

What would be the **most** likely cause of banding when rag rolling?

a) Uneven application of ground coat.
b) Applying glaze to an absorbent surface.
c) Glaze creeping under the masking tape.
d) Continually moving the rag in the same direction.

11

Why is the process of flogging used when oak graining?

a) It imitates straight grain.
b) It evens out the ground colour.
c) This produces the heartwood grain.
d) This produces pore marks in straight grain.

12

When painting a 30 m length of fascia board at a height of 4 m of a building surrounded by hardstanding, which type of scaffold is **most** suitable?

a) Pole ladder as both stiles are of the same strength.
b) Extension ladder as small areas at a time can be completed.
c) Mobile tower as it can be moved easily as the job progresses.
d) Static tower as the platform can hold more than one person.

13

When should a scaffold be inspected?

a) Every week.
b) Every month.
c) Upon first use.
d) Upon first purchase.

14

How do the Work at Height regulations encourage employers and employees to reduce risk of injury from falls from height?

a) By ensuring ladders are no longer used as scaffold.
b) By ensuring all working platforms have a guardrail.
c) By ensuring scaffold is properly maintained and inspected.
d) By ensuring all persons are fully qualified to use a ladder at work.

15

How does the batch number of the same design of wallpaper impact the quality of the paper across different rolls?

a) The colour would vary from roll to roll.
b) The width of each roll would differ.
c) The length of each roll would differ.
d) Size of pattern repeat would vary from roll to roll.

16

What primer is required for a chemically active surface requiring an oil based coating?

a) Acrylic.
b) Aluminium.
c) Zinc chromate.
d) Alkali resisting.

17

Why is aluminium primer the **most** suitable primer for resinous timber?

a) The acidic nature provides a surface key.
b) It is self-knotting and will prevent bleeding.
c) It is quick drying and can be over coated quicker.
d) The alkali resisting properties will prevent mould growth.

18

Which defect is rectified by raking out and cutting in?

a) Rust on metal.
b) Knots in timber.
c) Cracks in plaster.
d) Nail holes in timber.

19

Which defect can result from painting a solvent borne coating onto an un-primed alkaline surface?

a) Shrivelling.
b) Efflorescence.
c) Discolouration.
d) Saponification.

20

Which defect can be prevented by solvent wiping?

a) Cissing.
b) Chalking.
c) Flashing.
d) Blooming.

21

What type of coating contains a metal which corrodes more quickly than the metal it protects?

a) Sacrificial.
b) Thixotropic.
c) Non-drying.
d) Convertible.

22

How can a friable surface be effectively treated?

a) Stainblock as it would prevent bleeding.
b) Fungicidal wash as it would remove mould.
c) Degreasing agent as it would prevent the surface cissing.
d) Stabilising solution as it would bind down powdery surface.

23

Which filler is applied using a cartridge gun?

a) Fine surface.
b) Ready mixed.
c) Multi purpose.
d) Decorator's caulk.

24

What would be the main property of a thixotropic coating?

a) Oil resistant.
b) Fire resistant.
c) Drip resistant.
d) Alkali resistant.

25

Why is it necessary to neutralise liquid paint remover prior to applying paint?

a) Surface contaminants would cause the finish paint to dry with a loss of gloss.
b) Surface contaminants would prevent subsequent coats drying at all.
c) Chemical residue would cause further coatings to dry too quickly.
d) Chemical residue would cause the next coat to dry very slowly.

26

08C35 refers to a colour taken from which colour system?

a) RAL.
b) NCS.
c) BS4800.
d) Munsell.

27

Which paper pattern type is designed to reduce shading at the joints?

a) Drop match.
b) Straight match.
c) Random pattern.
d) Reverse alternate lengths.

28

When applying borders to walls what type of cut is used at the angled joints?

a) Star.
b) Mitre.
c) Straight.
d) Half star.

29

What is the effect of using a very thin paste when hanging a simplex wallpaper?

a) The cold wall surface will cause the paste to dry very quickly.
b) The paper will delaminate due to wetting properties of paste.
c) The paste will cause a shade variation in each length when dry.
d) The paper will not stick due to reduced adhesive properties of paste.

30

What would be the result of missed areas when applying paste?

a) Tearing.
b) Blistering.
c) Stretching.
d) Loss of emboss.

31

What are the ideal conditions to store powder materials?

a) In a cool moist atmosphere.
b) In a cool humid atmosphere.
c) In an open container for ease of access.
d) In a sealed container at even temperature.

32

Which roller sleeve is **most** suitable to apply gloss to a flat surface?

a) Mohair.
b) Long pile.
c) Lambswool.
d) Medium pile.

33

What material effectively protects a hardwood floor from impact damage?

a) Tarpaulin.
b) Cotton twill.
c) Solid sheeting.
d) Self-adhesive polythene.

34

Which item is **least** likely to be removed from a domestic area by a decorator?

a) Door furniture.
b) Room furniture.
c) Floor coverings.
d) Wall coverings.

35

How does a Micro porous coating protect the substrate?

a) It allows the passage of moisture from the timber through the coating.
b) It would prevent the spread of flame in the event of a fire.
c) It stops the chemically active surface affecting the drying oil of the paint.
d) It makes the surface self-cleaning.

36

Why would pigment be added to a paint material?

a) To provide opacity to the paint film.
b) To aid film thickness of paint coating.
c) To extend the open time of the paint film.
d) To increase elasticity of the paint coating.

37

When using acrylic paints, why would a synthetic filament brush be preferred over a natural bristle brush?

a) Natural bristle brushes are for finish paints only.
b) Synthetic filaments reduce brushmarks in quick drying paints.
c) Synthetic filaments are only suitable to apply water based paints.
d) Natural bristle brushes are only suitable to be used with oil based paints.

38

Which defect would result from always moving the rag in the same direction when rag rolling?

a) Banding.
b) Creeping.
c) Loss of wet edge.
d) Removal of ground coat.

39

What is the **main** safety concern when rubbing down very old oil based painted surfaces?

a) PPE requirements.
b) Ventilation requirements.
c) VOC content of surface coating.
d) Lead content of surface coating.

40

What would be the **main** safety concern when applying paper to a ceiling?

a) Increased volume of waste to be disposed of.
b) A risk of a serious injury caused by lack of oxygen.
c) The likelihood of falling from height causing injury or death.
d) A risk of exposure to falling debris which could cause injury.

41

When priming timber sheet materials using primer with high VOC content, what is the **most** important safety precaution for the decorator?

a) Removal of dust.
b) Good ventilation.
c) Safe disposal of waste.
d) Correct manual handling.

42

What is the **main** health risk when moving and replacing plasterboard sheet material?

a) Solid fixing.
b) Secure storage.
c) Safe manual handling.
d) Safe disposal of waste.

43

What is the face of a brick called?

a) Cross.
b) Header.
c) Perpend.
d) Stretcher.

44

What role does the purlin play in traditional roof construction?

a) Acts as a spine at the apex.
b) Forms the shape of the roof.
c) Protects the end of the roof timbers.
d) Supports the rafters at midway point.

45

Which building element is part of the substructure?

a) Trussed roof.
b) Partition wall.
c) Raft foundation.
d) Solid ground floor.

46

Why should a schedule be used when programming works?

a) To provide details of the costs of materials and services needed to complete works.
b) To manage the expected and actual timescales for completion of works.
c) To communicate the amount of significant work and materials needed to complete works.
d) To calculate the estimated labour costs of completing the works.

47

What area of welfare should be considered prior to setting up a construction site?

a) Toilets.
b) Offices.
c) Car parks.
d) Rubbish bins.

48

What is the **most** likely purpose of providing a secure perimeter around a construction site?

a) To keep workers from leaving the site during scheduled work time.
b) To ensure that the site is not accessed by unauthorised persons.
c) To reduce noise from impacting the surrounding environment.
d) To prevent rubbish from polluting the neighbouring areas.

49

A solvent borne coating which has been applied to a plaster substrate has failed to dry correctly and has formed a soapy consistency on the surface.

Which of the following statements is correct?

a) The greasy surface has caused cissing of the paint coating.
b) The absorbency of the surface has resulted in lack of adhesion.
c) The moisture content of the surface has retarded the process.
d) The alkaline nature of the surface has affected the oil of the paint material.

Applied knowledge and understanding

The candidate will analyse the cause of the defect and relate it to a specific substrate. They will also evaluate the possible causes and selects the correct answer after identifying the problem as saponification and the substrate as chemically active. The other defects would not result in a soapy substance.

50

A hardwood timber surface with multi layered coatings requires stripping prior to the application of a clear coating. A previous DIY attempt, using liquid paint remover, had proved difficult and the only alternative is to remove the remaining coating using a heat source.

What would be the **most** appropriate heat source to remove the coating, and what would be the **immediate** safety concern of the person taking over the task?

a) Hot air gun. The burning of any residue giving off fumes.
b) LPG. The timber substrate will burn and cause a fire.
c) LPG. The ignition of multi layered paint coatings will cause a fire.
d) Hot air gun. The heat source will scorch the surface.

Applied knowledge and understanding

The candidate will analyse the situation regarding the use of liquid paint remover used by an untrained, inexperienced person as well as the fact that the timber is a hardwood and is decorative. They will then compare stages of the two different removal methods, evaluating the stages and the hazards associated with each method and the likely defects that each will cause on the timber.

51

When removing corrosion from steelwork on a petro-chemical site, why would the mandatory use of phosphor bronze brushes be highlighted in the method statement?

a) This type of tool is non-sparking.
b) This type of tool is resistant to flames.
c) This type of tool is economical to purchase.
d) This type of tool is resistant to alkali attack.

Applied knowledge and understanding

The candidate will analyse the properties of the tool being highlighted and the circumstances surrounding the task. They also must make a link between the method statement and safety. The candidate will evaluate the options and choose the safest option relevant to the scenario.

52

An Edwardian lounge with a considerable amount of plaster repairs to the walls has recently been papered with a pattern vinyl paper. When dried, the butt joints have opened in places, revealing the plaster below.

What is the **most** likely cause of the problem, and how could this have been avoided?

a) The problem is due to incorrect paste, and could have been avoided by following manufacturer instructions.
b) The problem is due to the paper manufacturing process, and could have been avoided by closely checking rolls before hanging.
c) The problem is due to uneven absorbency across the surface area, and could have been avoided by cross lining the wall.
d) The problem is due to incorrect drying from atmospheric conditions, and could have been avoided by increasing ventilation.

Applied knowledge and understanding

The candidate will analyse the properties of different plaster repairs to the substrate and the circumstances surrounding the defect. The candidate will evaluate each option and relate absorbency to a plastered surface. The areas of different plaster repairs will have different porosity levels and result in certain pasted areas of the paper drying more rapidly than others, which would result in shrinkage. They then need to analyse how this problem could have been avoided while relating it to the specific details of the scenario.

53

When hanging a coloured, non-matching paper a visible variation in shade at the butt joints is apparent. What would be the **most** likely cause of this defect?

a) Use of incorrect adhesive during pasting.
b) Failing to reverse alternate lengths.
c) Over use of the seam roller during application.
d) Insufficient soaking time after pasting the wall paper.

Applied knowledge and understanding

The candidate will analyse properties of this paper type and the manner in which it is handled and hung. They also need to analyse what the defect is and how it was caused. The candidate will evaluate each option, differentiating between possible causes and the most likely cause.

54

A solvent based gloss finish is applied to a fascia board at the end of an autumn day just before the decorator left.

What is the **most** likely effect this would have on the paint film the following day, and what action would rectify this effect?

a) The paint film will yellow on drying, and will require an additional coat of gloss.
b) The paint film will peel, and will require total removal.
c) The paint film will suffer a loss of gloss, and will require an additional coat of gloss.
d) The paint film will shrivel, and will require total removal.

Applied knowledge and understanding

The candidate will analyse the situation regarding time of day and year, and how these effect the temperature and the moisture content of the atmosphere. They will also need to analyse the properties of the solvent based gloss finish, and how these properties interact during the time of day and year. They will then need to evaluate how to overcome this effect by comparing each option and choosing which links best with the situation.

55

Multi coloured spots have appeared on a ceiling. After DIY repainting, the problem returns.

How should this be treated, and what preventative measure should be taken to keep this situation from happening again?

a) Treated by dry brushing, and prevented by applying an alkali resisting primer.
b) Treated by washing with sugar soap, and prevented by applying stain block.
c) Treated by dry scraping, and prevented by applying a stabilising solution.
d) Treated by applying a fungicidal wash, and prevented by improving ventilation.

Applied knowledge and understanding

The candidate will analyse the surface condition and possible cause for the defect. They will then need to use their knowledge and understanding of treating and preventing mould to evaluate preventative measures, comparing the various solutions and recognising the appropriate option.

56

A previously painted plaster ceiling has a large crack through it, which requires repairing before repainting.

What is the **main** step in the rectification process, and what is the purpose of this step?

a) Proud fill the crack to allow for shrinkage.
b) Wet in the crack to satisfy porosity of the substrate.
c) Undercut the crack to prevent filler from falling out.
d) Flush fill the crack to minimise sanding.

Applied knowledge and understanding

The candidate will analyse the situation and the requirements of filling a cracked ceiling. They then have to use their knowledge and understanding of the preparation process to evaluate which is the main step. They also have to link each step with its purpose, applying it to this specific situation.

57

The floor of a cellar storeroom has been painted with a solvent borne floor paint. When the job is complete, the door is closed to prevent people walking on the wet coating.

What is the **most** likely consequence of this action, and what would be the cause?

a) Retarded drying due to lack of light and oxygen.
b) Pitting due to porosity of the storeroom floor.
c) Blooming due to the temperature of the storeroom floor.
d) Surface crazing due to high temperature of unventilated room.

Applied knowledge and understanding

The candidate will analyse the situation, including how a closed door effects ventilation and specific drying methods for this specific paint type. The candidate evaluates the

various consequences and causes of the fact that there is no light and a lack of oxygen, as this paint system needs both in order to dry.

58

A customer wants a lounge ceiling papered with a random match paper. The room is 'L' shaped and has a small window at one end and a large window at the opposite end. What procedure should be followed? Give the reason for your choice.

a) Work away from the main light source to prevent highlighting any raised edges.
b) Work towards the main light source to prevent highlighting any raised edges.
c) Apply the longest length first to minimise wastage.
d) Apply the shortest length first to minimise wastage.

Applied knowledge and understanding

The candidate will analyse the difficulty of the task and evaluate the best starting position, considering what defects may occur. To do this, they will analyse the amount and direction of natural light, recognising that the amount of light is important to disguising discrepancies in hanging and will choose the option which gives greater amount of light. The candidate will also evaluate the type of paper, as no pattern matching is required. Lastly, they need to provide a justification for this answer.

59

A softwood staircase handrail has had the paint removed with water soluble liquid paint remover. After neutralising the paint remover residue, what would be the next step in the preparation process and why?

a) Apply primer to seal the surface.
b) Dry abrade to remove raised fibres.
c) Dry brush to remove salts on surface.
d) Solvent wipe as the timber is oily in nature.

Applied knowledge and understanding

The candidate is asked to analyse the properties of the timber type and the properties of the paint removal process used. The candidate will evaluate that neutralising this type of paint remover will involve lots of water, as it is water soluble. They will further evaluate the properties of the timber type and the effects of copious amounts of water on the timber. Lastly, they need to provide a justification for their answer.

60

A pattern matching paper has been hung from left to right on a feature wall of a newly built property. The main feature within the pattern is closer to the ceiling on the first length and is lower down the wall on the last length.

What is the cause, and what action should the decorator have taken to prevent the issue?

a) The paper is not plumb. The decorator should have ensured the first length is plumb.
b) The ceiling runs out. The decorator should have matched the paper at eye level.
c) The joints are mismatched. The decorator should have aligned the design.
d) The pattern is not balanced. The decorator should have started from a centre point.

Applied knowledge and understanding

The candidate will analyse the situation and work out the potential problem. They will also evaluate the situation and work out that the problem involves levels on a vertical or horizontal plane, selecting the option connected with the most important stage of paperhanging – vertical plumb.

2 Mark scheme

2.1 Multiple choice

Question	Key
1	C
2	D
3	D
4	C
5	C
6	B
7	C
8	B
9	B
10	D
11	D
12	C
13	C
14	C
15	A
16	D
17	B
18	C
19	D
20	A
21	A
22	D
23	D
24	C
25	C
26	C
27	D
28	B
29	D
30	B

Question	Key
31	D
32	A
33	C
34	C
35	A
36	A
37	B
38	A
39	D
40	C
41	B
42	C
43	D
44	D
45	C
46	C
47	A
48	B
49	D
50	A
51	A
52	C
53	B
54	C
55	D
56	C
57	A
58	A
59	B
60	A

Useful contacts

UK learners **General qualification information**	**E: learnersupport@cityandguilds.com**
International learners General qualification information	E: **intcg@cityandguilds.com**
Centres Exam entries, Registrations/enrolment, Certificates, Invoices, Missing or late exam materials, Nominal roll reports, Results	E: **centresupport@cityandguilds.com**
Single subject qualifications Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change	E: **singlesubjects@cityandguilds.com**
International awards Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports	E: **intops@cityandguilds.com**
Walled Garden Re-issue of password or username, Technical problems, Entries, Results, GOLA, Navigation, User/menu option, Problems	E: **walledgarden@cityandguilds.com**
Employer Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	E: **business_unit@cityandguilds.com**
Publications Logbooks, Centre documents, Forms, Free literature	

If you have a complaint, or any suggestions for improvement about any of the services that City & Guilds provides, email: feedbackandcomplaints@cityandguilds.com

Published by City & Guilds
1 Giltspur Street
London
EC1A 9DD
www.cityandguilds.com

City & Guilds is a company registered in England and Wales (company number 16513878)