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Level 2 Technical Certificate in Painting and Decorating

Level 2 Painting and Decorating – Theory exam

Tuesday 20 March 2018
09:30 – 11:30

**You should have the
following for this examination**

- a multiple-choice answer sheet
- a pen with blue or black ink

This question paper is the property of the City and Guilds of London Institute and is to be returned after the examination.

Read the following notes before you answer any questions

- You **must** use a pen with black or blue ink to complete **all** parts of the answer sheet.
- Check that you have the correct answer sheet for the examination.
- Check that your name and candidate details are printed correctly at the top of your answer sheet.
- Inform the invigilator if your name or examination details are not correct.
- Each question shows **four** possible answers (lettered 'a', 'b', 'c' and 'd'); only **one** is correct.
- Decide which **one** is correct and mark your answer on the **answer sheet** with your pen.

For example if you decide 'a' is correct, mark your answer like this

101	<input checked="" type="radio"/>	(b)	(c)	(d)
	Cancel	Cancel	Cancel	Cancel

If you want to change your answer, cancel your first choice by filling in the 'cancel' box below the circle like this

101	<input checked="" type="radio"/>	(b)	(c)	(d)
	Cancel	Cancel	Cancel	Cancel

Then mark the answer which you have now decided is correct. For example if you now decide 'c' is correct, mark your answer like this

101	<input checked="" type="radio"/>	(b)	<input checked="" type="radio"/>	(d)
	Cancel	Cancel	Cancel	Cancel

Any other marks on the form may invalidate some of your answers.

- Any calculations or rough working can be done on the question paper.
- Attempt all questions. If you find a question difficult, leave it and return to it later.

This paper contains 60 questions. Answer them using the 'boxes' numbered 1 to 60 on the answer sheet.

- 1 What type of construction work would the building of a new local shop be classed as?
 - a Restoration.
 - b Industrial.
 - c Domestic.
 - d Commercial.
- 2 Who does the Building Control Officer work for?
 - a The client.
 - b The architect.
 - c The local authority.
 - d The quantity surveyor.
- 3 What is the role of the Painting and Decorating charge hand classed as?
 - a Technician.
 - b Professional.
 - c Skilled Operative.
 - d General Operative.
- 4 Who provides the day to day communication to the craft operative of tasks to be completed?
 - a Ganger.
 - b Forman.
 - c Surveyor.
 - d Architect.
- 5 What is the **best** method of communicating changing hazards to operatives on site?
 - a Verbally as it is quick and efficient.
 - b Signage as a constant reminder.
 - c Tool box talks to discuss the issue in-depth.
 - d Written memos to keep a paper trail.
- 6 Barriers around an excavation are missing. Who would the Safety Officer report this to?
 - a The Architect to inform the client.
 - b The Government to contact the HSE.
 - c The Local Authority to protect the public.
 - d The Building Contractor to protect the workforce.
- 7 Why **must** the local authorities be kept informed about the construction progression of a new building?
 - a To control the building cost to meet budget.
 - b To ensure site's safety and security of local population.
 - c To comply with building regulations for timely inspections.
 - d To ensure the project is completed on time to prevent neighbourhood disruption.
- 8 What document details the progress of a construction project?
 - a Bill of quantities.
 - b Paint schedule.
 - c Gantt chart.
 - d Work specification.
- 9 A shop-front requires external redecoration, the main display window is badly flaking. What preparation procedure should be followed to effectively remove the coating?
 - a LPG paint removal as it's quick and will be less of a hazard to the public.
 - b Dry scrape and abrade as the open air will allow dust to disperse.
 - c Hot air gun, as there is less chance of scorching the wood.
 - d Chemical removal as there is less chance of damaging the glass.
- 10 A previously painted plaster wall area is in a very poor condition, with deep holes and cracks, and requires preparation prior to repainting. What is the **most** appropriate method of preparation in readiness for painting?
 - a Dust out cracks and holes, fill with caulk and smooth off level with filling knife.
 - b Rake out, dust out, proud fill with a single pack filler. Allow to dry and abrade smooth.
 - c Rake out, wet in and back fill with a single pack filler. Allow to dry and refill.
 - d Dust out cracks and holes, wet in and proud fill with 2 pack filler. Allow to dry and abrade smooth.

- 11 What type of drawing shows the plan and elevations of a building?
- Orthographic.
 - Planometric.
 - Isometric.
 - Oblique.
- 12 Why are raft foundations **more** suitable than strip foundations when constructing on a poor sub-soil?
- They can be pre-cast off site.
 - They do not require steel reinforcement.
 - They transfer the building weight deep into the ground.
 - They spread the weight of the building over the ground.
- 13 What type of wall contains two masonry walls built side by side?
- Solid.
 - Cavity.
 - Partition.
 - Internal.
- 14 What name is given to the finishing piece of timber fixed at the end of the gable?
- Soffit.
 - Rafter.
 - Wall plate.
 - Barge board.
- 15 What type of access equipment is **best** suited for applying lining paper to a standard height ceiling?
- Mobile tower as it can be easily manoeuvred.
 - Trestles and staging as it has guard rails fitted.
 - Hop-ups and scaffold boards for quick erection.
 - Stepladders and scaffold boards for variable height adjustments.
- 16 What type of access equipment is **best** suited for the centralisation of a polyurethane ceiling at a height of 2.4 m?
- Stepladder as it is used for a short duration.
 - Tubular scaffold for its stability.
 - Mobile tower as it can be easily manoeuvred.
 - Extension ladder for variable height adjustments.
- 17 What is the **maximum** recommended continuous time limit for using stepladders?
- 10 mins.
 - 20 mins.
 - 30 mins.
 - 40 mins.
- 18 What is the **maximum** height limit when moving a mobile tower?
- 2 m
 - 4 m
 - 6 m
 - 8 m
- 19 The I.T. workstation area in an estate agent requires preparing in readiness for redecoration. Other parts of the area will remain open to staff and members of the public. What is the **most** suitable method of getting the area safe and ready for redecoration?
- Remove and relocate as much electrical and office furniture as possible, protect all remaining equipment with lightweight plastic sheeting. Barrier off area and add signage.
 - Remove and relocate all furniture and equipment allowing complete access to all parts of the area. Place wet paint signs around area.
 - Relocate all sensitive computer equipment to the centre of the room and sheet using heavy duty tarpaulins. Place signs to show area is off limits.
 - Relocate all equipment and furniture to the centre of the room. Open windows to enable a steady airflow.

- 20 A mobile tower with a base of 2.5 m x 2.0 m is required to paint a decorative cornice in a large hall which is 8 m high. What is the **safest** method of reaching the cornice to apply paint?
- Ensure initial sections of the tower are located on a level and firm base, enabling the tower to be built upright. Ensure guardrails are fitted to the tower in accordance with WAHR.
 - Secure base on a firm and level ground and fix outriggers to make the scaffold more stable. Ensure guardrails and toe-boards are fitted in accordance with HASAWR.
 - Secure and lock wheels on a level ground so tower remains stable during erection. Ensure toe-boards and guardrails are fitted in accordance with WAHR.
 - Ensure the tower is built on a firm ground and that the base sections are level and locked. Ensure outriggers, toe-boards and guardrails are fixed in accordance with WAHR.
- 21 Within how many days **must** a tower scaffold, over 2 m in height, be re-inspected?
- 5
 - 7
 - 10
 - 12
- 22 How should an operative access the top of a mobile tower?
- Internal ladder to prevent the operative falling.
 - External ladder to increase stability.
 - Internal ladder to prevent the tower from tipping over.
 - External ladder to increase the working area of the platform.
- 23 What timber sheet material comprises of thin laminates of wood laid in opposing directions?
- Blockboard.
 - Hardboard.
 - Plywood.
 - MDF.
- 24 What metal is classed as ferrous?
- Iron.
 - Lead.
 - Copper.
 - Aluminium.
- 25 What sheet material is used in the process of 'Taping and Jointing'?
- Fibreboard.
 - Plasterboard.
 - Chipboard.
 - Blockboard.
- 26 Why is it important to apply knotting solution over wood knots before painting?
- To prevent splits and shrinkage.
 - To help adhesion of the primer.
 - To prevent discolouring of the paintwork.
 - To improve the coverage of finished coating.
- 27 Why is a Mordant solution required before priming galvanised metal?
- To de-scale the surface by dissolving the rust.
 - To seal the surface to prevent corrosion.
 - To de-grease the surface to prevent contamination.
 - To etch the surface to support adhesion.
- 28 Why **must** water be avoided when removing efflorescence from a surface?
- It will cause the surface to stain.
 - It will cause salts to re-appear.
 - It will corrode the surface.
 - It will lead to mould growth.

- 29 A painted embossed paper ceiling requires the paper to be removed.
What is the **most** appropriate statement in relation to the removal of the paper?
- a Sheet and mask the area with plastic to prevent damage to the surrounding area.
 - b Sheet the area with cotton twill dustsheets with a protective plastic backing to protect the area and remain non-slip.
 - c Sheet the area with plastic backed dust sheets and isolate relevant power supply to prevent an electric shock.
 - d Double sheet the area with cotton twill dustsheets, isolate electric supply in the room and score the paper with a sharp blade.
- 30 An old black wrought iron metal gate, has recently been re-painted white, with a solvent borne undercoat and gloss, but the white paint keeps discolouring to a yellow brown colour immediately after it is re-painted.
What is the **most** appropriate rectification method?
- a Apply a solvent borne rust inhibitive metal primer and recoat.
 - b Prime with aluminium primer sealer to form a solid barrier and repaint.
 - c Apply an Alkali resistant primer to seal the metal and repaint.
 - d Seal with a lead-free metal primer to form a solid barrier and recoat.
- 31 What is the **most** appropriate primer used for painting resinous timbers?
- a Zinc.
 - b Acrylic.
 - c Universal.
 - d Aluminium.
- 32 What is the **most** effective method of removing corrosion from copper pipes?
- a Wire wool and water.
 - b Emery cloth and white spirit.
 - c Wire brush and white spirit.
 - d Wet and dry and water.
- 33 How should new plaster be prepared before painting?
- a Abrade with P120.
 - b Wash with sugar soap.
 - c Dry scrape with scraper.
 - d Dust off with dry stiff brush.
- 34 What method is **best** suited for the removal of vinyl wallcoverings before the use of a steam stripper?
- a Score surface to allow water to penetrate surface.
 - b Dry abrade to disrupt the vinyl surface.
 - c Pre-soak to soften the wallpaper adhesive.
 - d Dry peel to remove water resistant surface.
- 35 What method is **best** suited for the removal and re-varnishing of ornate softwood?
- a LPG as it is the quickest.
 - b Hot air as it does not leave any residue.
 - c Chemical as it easily forms to the relief.
 - d Dry abrade as it is the cheapest.
- 36 What is the **most** appropriate starting point, using LPG, when burning off a panel door?
- a Styles.
 - b Mouldings.
 - c Panels.
 - d Rails.
- 37 What can occur from failing to neutralise the surface after using liquid paint remover?
- a Darkening of the paint coating.
 - b Retarded drying of the paint coating.
 - c Lack of adhesion of the paint coating.
 - d Chalking of the paint coating.
- 38 What filler is **best** suited for indentations in a previously painted skirting board?
- a Caulk.
 - b Single-pack.
 - c Two-pack.
 - d Fine surface.

- 39 A 4-panel door requires repainting. Select the correct procedure, start and finish points, to complete this task.
- a Panels, moulding, muntins, rails, stiles. This procedure reduces the chance of fat edge build ups and flashing.
 - b Mouldings, panels, muntins, rails, stiles. This procedure reduces the chance of any fat edges and flashing.
 - c Mouldings, panels, rails, muntins, stiles. This procedure keeps the wet edge, and reduces the chance of any fat edges and flashing.
 - d Panels, mouldings, muntins, stiles, rails. This procedure allows straight brush marks and reduces the chance of any fat edges and flashing.
- 40 A previously unpainted rough textured cement rendered gable end on a private house requires painting. What is the **most** appropriate cost effective access equipment required and method of application?
- a Mobile tower and sheepskin roller. Provides safe and easy access to whole gable area.
 - b Double extension ladder, long pile roller and extension pole. Provides quick, easy access to whole gable end.
 - c Trestle scaffold, long pile roller and extension pole. Provides quick, easy and safe access to whole gable end.
 - d Mobile elevated working platform and sheepskin roller. Provides quick, safe and easy access to whole gable area.
- 41 Prior to filling, which process should occur after raking out a large crack?
- a Seal with shellac.
 - b Pre-fill with caulk.
 - c Wet with water.
 - d Prime with primer.
- 42 What type of masking tape is **best** suited for masking off a hardwood skirting?
- a Crepe.
 - b 7 day.
 - c Duct.
 - d Striping.
- 43 What protective sheeting is **most** suitable for electronic items in a domestic environment?
- a Cotton twill dust sheets.
 - b Thin polythene sheets.
 - c Tarpaulin sheets.
 - d Drop sheets.
- 44 What form of protective sheeting is **best** suited for an office walkway?
- a Tarpaulin as it is hard-wearing.
 - b Drop sheets as it is easily transferred.
 - c Cotton twill as it is absorbent.
 - d Adhesive plastic as it is movement resistant.
- 45 What item should be removed by the decorator prior to re-decorating a room?
- a Sockets.
 - b Wall lights.
 - c Curtain rails.
 - d Carpets.
- 46 Which paint component within a tin of undercoat provides the colour?
- a Plasticiser.
 - b Pigment.
 - c Solvent.
 - d Binder.
- 47 What is the final drying stage of an applied coat of emulsion?
- a Oxidation.
 - b Evaporation.
 - c Coalescence.
 - d Polymerisation.
- 48 At what stage of paint drying may a 2nd application be safely applied?
- a Through dry.
 - b Touch dry.
 - c Flow.
 - d Set.

- 49 A traditional build, single story extension is required on a property with a stable ground condition.
Which is the **most** cost effective and efficient type of foundation required for the build?
- a Raft foundation. Chosen due to the load of the build.
 - b Strip foundation. Chosen due to the nature of the sub soil.
 - c Pad foundation. Chosen due to the traditional build of the extension.
 - d Pile foundation. Chosen due to the load and nature of the sub soil.
- 50 A patio door is required in a Flemish bond wall. What are the considerations for creating an opening for the door?
- a Solid wall construction. Non-load bearing wall, calculations and lintel is required.
 - b Cavity wall construction. Non-load bearing wall, no calculations required. Lintel will be required for opening.
 - c Solid wall construction. Load bearing wall, calculations and concrete or steel lintel will be required.
 - d Cavity wall construction. Load bearing wall, calculations and concrete or steel lintel will be required.
- 51 Why would intumescent paint be specified for use within commercial properties?
- a To protect steel from excessive heat as it is flame retardant.
 - b To protect iron from corrosion as it is a rust inhibitor.
 - c To protect timber from humid conditions as it is mould resistant.
 - d To protect hardwood from sunlight as it is fade resistant.
- 52 Which part of a brush secures the bristles to the handle?
- a Setting.
 - b Filling.
 - c Frame.
 - d Ferrule.
- 53 What type of roller is **best** suited to apply paint to a low-relief textured ceiling?
- a Foam.
 - b Long pile Sheepskin.
 - c Short pile Mohair.
 - d Medium pile woven.
- 54 What paint defect could be a result of applying acrylic masonry paint to a friable surface?
- a Blooming as the surface is damp.
 - b Flaking as the surface is not sound.
 - c Fading due to exposure to sunlight.
 - d Retarded drying due to a chemical reaction.
- 55 Which paint defect can be a result of incorrectly preparing a new tin of Alkyd gloss prior to its application?
- a Fat edges on the corners.
 - b Crazing due to rapid drying.
 - c Grinning due to poor opacity.
 - d Ropiness due to over-brushing.
- 56 Which defect will be prevented by inverting paint tins during storage?
- a Livering.
 - b Fattening.
 - c Skinning.
 - d Settling.
- 57 Why is it **best** to store roller sleeves upright after cleaning?
- a They dry quicker, as air can get all around the sleeve.
 - b The pile is protected, as it won't get flattened.
 - c Any missed paint will drain off to one end making it easier to clean.
 - d The core will remain free of paint making them easier to fit for next use.

58 What is the **most** appropriate method for storing cotton twill dust sheets after removal of wallcoverings?

- a Shake, fold and store on floor to minimise storage.
- b Shake, air dry and store in racks to prevent mildew.
- c Shake, wash and store damp to keep dust down.
- d Shake, store and seal in bin bags to prevent cross contamination.

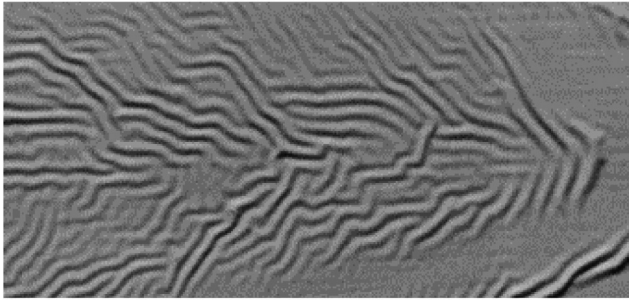


Figure 1

59 A window sill has developed the surface defect shown in Figure 1 after applying a solvent borne gloss on the appropriate undercoat. Which statement correctly identifies the defect, cause and **most** appropriate method of rectification?

- a Shrivelling, caused by uneven application of the paint. Burn off and recoat.
- b Wrinkling caused by painting over a greasy surface. Dry abrade, degrease and recoat.
- c Shrivelling, caused by a hard coating applied over a softer coating. Wet abrade and recoat.
- d Wrinkling, caused by the underlying coating not fully drying before the top coat was applied. Strip and recoat.

60 A newly fixed wooden fascia, made from pine softwood, finished in a solvent borne black gloss paint system has developed many blisters in spots over the entire south facing section exposing some knots. How should this be rectified?

- a Burn off and prime, undercoat and gloss.
- b Dry scrape and apply aluminium wood primer.
- c De-grease, prime, undercoat and gloss.
- d Abrade, dry scrape, and prime with a wood primer.

NOW GO BACK AND CHECK YOUR WORK

- **IMPORTANT -**
Are the details at the top of the answer sheet correct?
Have you filled in your answers in INK in the appropriate boxes on the answer sheet?