



# 7906-507 MARCH 2022

## Level 2 Technical Certificate in Site Carpentry

### Level 2 Site Carpentry – Theory exam

**Monday 14 March 2022**  
**09:30 – 11:30**

- You should have the following for this examination**
- a multiple-choice answer sheet
  - a pen with black or blue ink
  - a non-programmable calculator

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**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"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	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"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	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

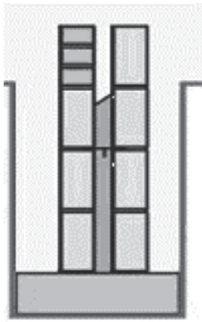
101	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
	Cancel	Cancel	Cancel	

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.**

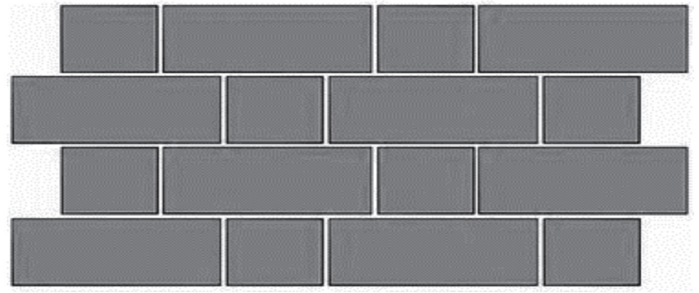
- 1 What type of construction work is categorised as general maintenance?
  - a Factory buildings.
  - b Residential repairs.
  - c Shopping complex.
  - d Housing developments.
  
- 2 Which document details the quality and type of concrete to be used on site?
  - a Construction drawings.
  - b Programme of work.
  - c Specification.
  - d Schedule.
  
- 3 What does the abbreviation CAD stand for?
  - a Computer associated design.
  - b Computer aided design.
  - c Computer applied design.
  - d Computer advanced design.



Foundation – published anonymously – <http://nuweb2.northumbria.ac.uk>

**Figure 1**

- 4 What foundation type is shown in Figure 1?
  - a Pile.
  - b Pad.
  - c Strip.
  - d Raft.
  
- 5 What is the underground utility colour code for water pipes?
  - a Red.
  - b Blue.
  - c Green.
  - d Yellow.



Brick bond – published anonymously – <http://www.i-brick.com>

**Figure 2**

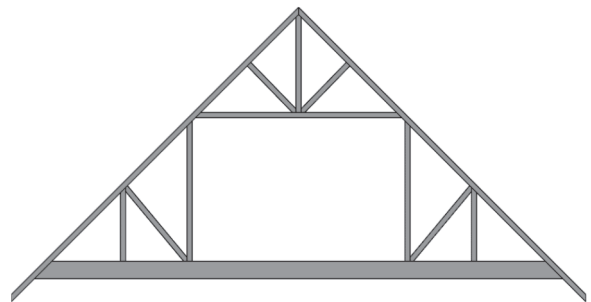
- 6 What brick bond is shown in Figure 2?
  - a English.
  - b Header.
  - c Flemish.
  - d Stretcher.



hatching – published anonymously – <http://www.cadhatch.com>

**Figure 3**

- 7 What type of hatching material is shown in Figure 3?
  - a Concrete.
  - b Timber.
  - c Screed.
  - d Insulation.



Roof truss – published anonymously – <https://www.chiefarchitect.com>

**Figure 4**

- 8 What type of truss is shown in Figure 4?
  - a Mono.
  - b Attic.
  - c Fan.
  - d Fink.

- 9 What does the abbreviation EWI stand for?
- External wall insulation.
  - External window insulation.
  - Environmental wall installation.
  - Environmental window installation.
- 10 A school leaver would like to train as a CAD operator, which building specialist areas would they seek employment?
- Professional.
  - Labourer.
  - Technician.
  - Craft.
- 11 An eaves finish detail is to be drawn on A4 paper (210 mm x 297 mm). What scale should this be drawn to fit on the paper to show the construction detail clearly?
- 1:1
  - 1:5
  - 1:20
  - 1:50
- 12 The following tasks are showing on a programme of works. What is the sequence of operation?
- W Stud partition  
 X Kitchen units  
 Y External doors  
 Z Door lining
- Y, W, Z, X
  - Z, W, X, Y
  - W, Y, Z, X
  - X, Z, Y, W
- 13 When forming a door opening in a 3 m high stud partition, what additional support is required above the head to accommodate the fixing of the plasterboard sheeting?
- Jamb.
  - Brace.
  - Noggin.
  - Puncheon.
- 14 Why incorporate honeycombed sleeper walls into the construction of a suspended timber ground floor?
- To remove the need for airbricks.
  - To maintain joist centres.
  - To prevent the floorboards cupping.
  - To use smaller joist sections.
- 15 A carpenter was asked to order the tongue and grooved floor boarding with a face size of 90 mm to cover a floor measuring 5.2 m long x 2.34 m wide. How many linear metres of floor boarding would be ordered? Make no allowance for waste.
- 13.52 m
  - 15.08 m
  - 135.2 m
  - 158.8 m
- 16 A carpenter has been tasked to replace the decking of a flat roof. Prior to stripping the existing covering, it was noted that the roof has large areas of standing water. Why should the existing firring pieces be replaced with ones of greater pitch?
- To allow for deeper gutting.
  - To reduce the fall.
  - To facilitate a valley gutter.
  - To increase the fall.
- 17 A carpenter has been asked to produce three 2.4 m high storey linings to take standard 1981 mm x 762 mm internal doors. The timber merchant only has 2.4 m length of PAR lining material available. How many lengths of PAR lining material should be ordered?
- 6
  - 7
  - 8
  - 9
- 18 What are the dimensions of a standard fire door?
- 2040 x 826 x 40
  - 1981 x 870 x 40
  - 2050 x 762 x 35
  - 1981 x 870 x 35



Ironmongery – published anonymously –  
<http://old.arciron.co.uk>

**Figure 5**

19 Which item of ironmongery is shown in Figure 5?

- a Rim lock.
- b Euro lock.
- c Suffolk latch.
- d Mortice latch.



Power tool – published anonymously –  
<https://www.ie.screwfix.com>

**Figure 6**

20 Which power tool is shown in Figure 6?

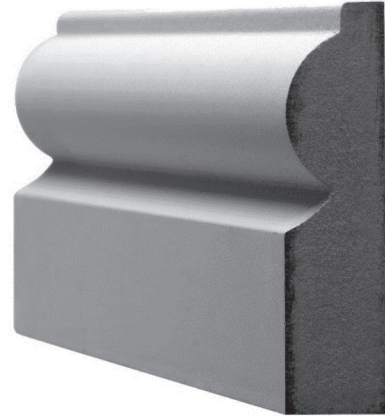
- a Router.
- b Planer.
- c Belt sander.
- d Orbital sander.

21 Which plane would be used to dress the end grain when adjusting mitres?

- a Jack.
- b Rebate.
- c Block.
- d Bullnose.

22 Which moulding is used to cover the joint between the wall and a door lining?

- a Dado.
- b Skirting.
- c Cornice.
- d Architrave.



Moulding – published anonymously –  
<https://www.howdens.com>

**Figure 7**

23 Which moulding profile is shown on the skirting section in Figure 7?

- a Ovolo.
- b Torus.
- c Ogee.
- d Cavetto.

24 What tool is used to ensure the head of a nail is driven below the surface of the timber?

- a Chisel.
- b Bolster.
- c Punch.
- d Bradawl.

25 Which type of joint is used between a skirting and a plinth block?

- a Housing.
- b Dovetail.
- c Mitre.
- d Tenon.

26 A carpenter has been asked to hang an external hardwood oak door. Which hinge would be **most** suitable for hanging this type of door?

- a 475 mm steel butts.
- b 100 mm steel butts.
- c 100 mm stainless butts.
- d 75 mm stainless butts.

27 Why is standard grade MDF skirting **not** recommended for use in bathroom areas?

- a It shrinks in length after being fixed.
- b It absorbs moisture and swells.
- c It is difficult to fix to plastered walls.
- d It does not take a paint finish well.

28 A carpenter is putting together a site fixing kit to fix architraves and skirting in a new timber framed dwelling. Which **two** fixings would be suitable for fixing **both** mouldings?

- a 40 mm ovals and 70 mm cut clasp.
- b 40 mm wire and 70 mm lost heads.
- c 40 mm ovals and 70 mm lost heads.
- d 70 mm clasp and 40 mm wire.

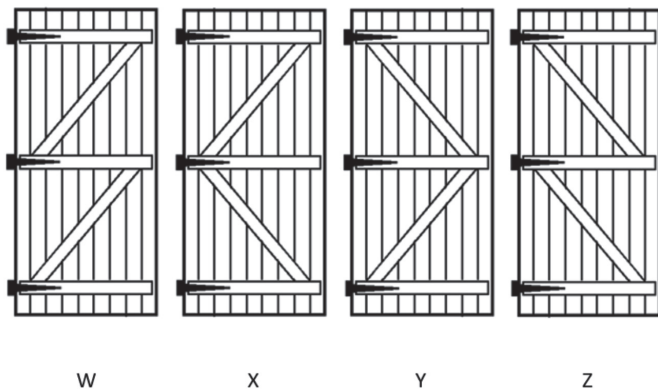


Figure 8

29 A ledged and braced door has been delivered on site for hanging. The braces have been supplied loose. Which brace configuration shown in Figure 8 would prevent the door from dropping?

- a W
- b X
- c Y
- d Z

30 An operative has been given a snagging list to complete the unfinished tasks shown in List 1. List 2 shows the ironmongery available. Match the appropriate ironmongery to **each** task listed to complete the snagging list.

**List 1**

- 1 Internal flush door
- 2 Pair of french doors
- 3 Kitchen unit
- 4 Front door

**List 2**

- W Rebated fore-end set
- X Night latch
- Y Soft close hinge
- Z Tubular latch

	1	2	3	4
a	X	Z	Y	W
b	Z	Y	W	X
c	X	Z	W	Y
d	Z	W	Y	X

31 This question consists of a statement and a reason. Which option is correct?

**Statement**

When fitting skirting board to an internal corner a scribed joint should always be used.

**Reason**

A scribed joint prevents the timber from shrinking.

- a Statement true Reason false.
- b Statement false Reason true.
- c Statement true Reason true.
- d Statement false Reason false.



Cladding – published anonymously – <http://www.greenspec.co.uk>

Figure 9

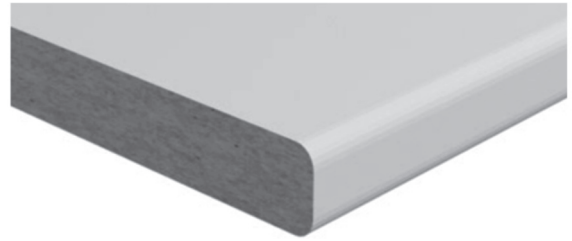
32 Which type of cladding is shown in Figure 9?

- a Feather edge.
- b Shingle tile.
- c Matchboard.
- d uPVC panel.



Saw – published-anonymously – <http://proinstrumentinfo.ru>

**Figure 10**



Cross section

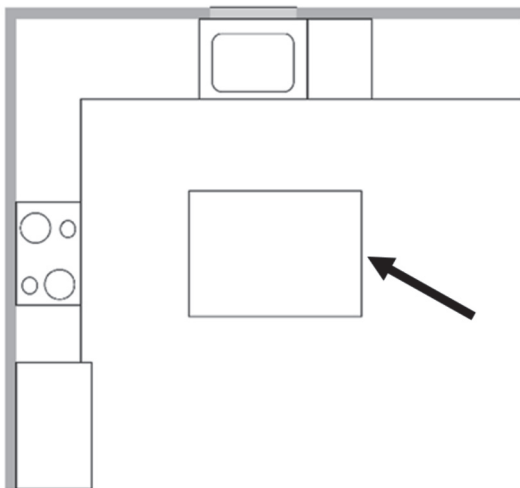
**Figure 12**

33 What type of handsaw is shown in Figure 10?

- a Mitre.
- b Coping.
- c Panel.
- d Gents.

34 What is the **main** purpose of incorporating a removable panel into a service encasement?

- a To check for leaks.
- b To access valves.
- c To insert insulation.
- d To access meters.



**Figure 11**

35 What name is given to the bespoke kitchen unit indicated by the arrow in Figure 11?

- a Appliance.
- b Island.
- c Wall.
- d Tower.

36 Which type of worktop is shown in Figure 12?

- a Post formed.
- b Solid timber.
- c Composite.
- d Granite.

37 Which fixing would be suitable for fixing wall units hanging brackets plates to a stud wall?

- a Coach screw.
- b Framing screw.
- c Cavity anchor and screw.
- d Masonry plug and screw.



Bolt – published anonymously – <https://www.picclickimg.com>

**Figure 13**

38 Which type of bolt is shown in Figure 13?

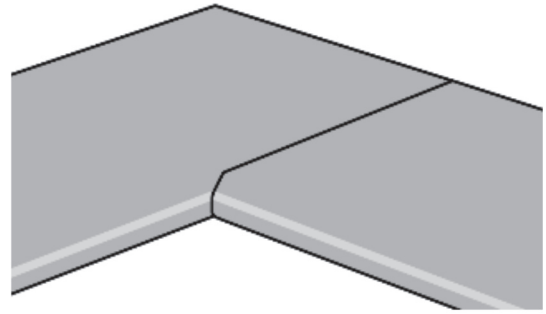
- a Coach.
- b Worktop.
- c Expanding.
- d Connector.





Jig – published anonymously – <https://www.picclickimg.com>

**Figure 14**



Kitchen worktop – published anonymously – [www.worktop-express.co.uk](http://www.worktop-express.co.uk)

**Figure 15**

- 39 What is the jig in Figure 14 used for?
- Jointing timber worktops.
  - Forming drainer grooves.
  - Cutting out sink apertures.
  - Trenching stair strings.
- 40 What is the purpose of skeleton framework, when constructing service encasements?
- To provide support for thin facing materials.
  - To leave room for the acoustic insulation.
  - To allow for ventilation to the ducting.
  - To give access to the pipework.
- 41 The radiators are being re-positioned during the refurbishment of a property that has solid concrete floors. Why are PVC skirting profiles used?
- It has a natural key to take a paint finish.
  - It allows the pipework to be concealed.
  - It stops condensation forming on the pipework.
  - It improves the efficiency of the heating system.
- 42 Prior to fitting a new kitchen to an existing property, how would the positions of hidden services buried in the walls be located?
- Scan with a multi-function detector.
  - Lift the floorboards and check.
  - Consult the original drawings.
  - Contact the utility providers.
- 43 Why are the inside edges of apertures sealed on post-formed worktops?
- To prevent the core from drying out.
  - To assist in the fixing of appliances.
  - To improve the appearance.
  - To prevent moisture ingress.

- 44 Why is the female half of the corner kitchen worktop joint routed with the face uppermost, when cutting the joint shown in Figure 15?
- To prevent breakout to the edge.
  - To avoid damage to the jig.
  - To facilitate dust extraction.
  - To increase the life of the cutter.
- 45 An operative has been asked to load the van with the appropriate power tools that are required for the tasks listed. Match the appropriate power tool with the tasks they would be required for.

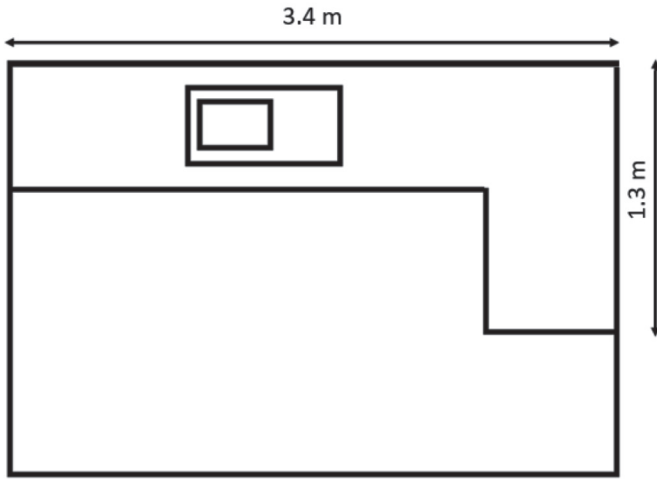
**Power Tools**

- U Screwdriver
- V Power planer
- W Router
- X Jigsaw
- Y Rotary drill
- Z Chop saw

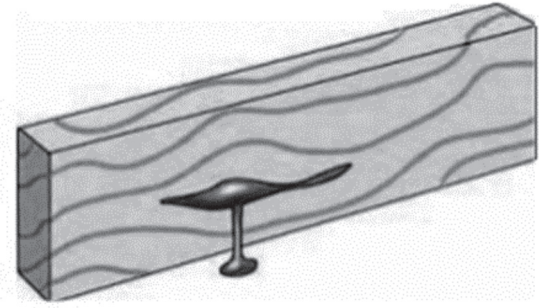
**Tasks**

- Cutting sink aperture
- Cutting worktop joint
- Assembling carcasses
- Mitring cornice

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
a	Z	X	Y	W
b	W	Z	Y	V
c	X	W	U	Z
d	Z	W	U	X



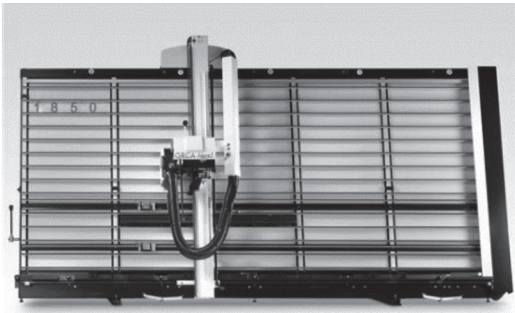
**Figure 16**



**Figure 17**

- 46 An apprentice carpenter has been asked to provide a step by step guide to joint a post-formed laminated kitchen worktop in an "L" shape as shown in Figure 16. Using the information below, what is the correct sequence of operation?
- W Tighten bolts  
 X Form joints  
 Y Form biscuit slots  
 Z Cut worktops to length
- a Y, X, Z, W  
 b Z, X, Y, W  
 c Y, X, W, Z  
 d Z, Y, W, X
- 47 What sheet material is made from wood flakes bonded in alternate directions?
- a Chipboard.  
 b Plywood.  
 c OSB.  
 d MDF.
- 48 What timber defect is shown in Figure 17?
- a Dead knot.  
 b Resin pocket.  
 c Waney edge.  
 d Case hardening.
- 49 In relation to the use of circular saws, what document gives guidance on how to comply with PUWER?
- a COSHH.  
 b RIDDOR.  
 c LOLER  
 d ACOP.
- 50 What is the **maximum** time for the saw blade to come to a complete halt after pressing the stop button?
- a 5 seconds.  
 b 8 seconds.  
 c 10 seconds.  
 d 12 seconds.





Saw – published anonymously – <http://www.hjb-services.com>

**Figure 18**

- 51 Which type of saw is shown in Figure 18?
- a Beam.
  - b Wall.
  - c Table.
  - d Dimension.



**Figure 19**

- 52 What can be adjusted using the component indicated by the arrow in Figure 19?
- a Fence position.
  - b Blade height.
  - c Blade cant.
  - d Motor speed.
- 53 Why would European redwood be selected instead of whitewood for the manufacture of door frames?
- a It is more durable.
  - b It has a lower density.
  - c It is cheaper to purchase.
  - d It has a pronounced figure.

- 54 Why should joists with large edge knots be positioned with the defect uppermost?
- a To ensure the knots are kept under tension.
  - b To ensure the knots are kept under compression.
  - c To allow the knots to remain on the neutral axis.
  - d To allow the knots to be removed for service runs.

- 55 Why should a TCT saw blade be selected instead of a HSS blade when cutting abrasive timber?
- a It maintains its edge for longer.
  - b It can be sharpened by hand.
  - c It will run at a slower speed.
  - d It has an adjustable kerf.

- 56 Why use a saddle board when manufacturing tiling fillets?
- a It eliminates the need for additional support during cutting.
  - b It allows the crown guard to be removed during cutting.
  - c It removes the need for a push stick during cutting.
  - d It supports the timber when running the angled cut.

- 57 This question consists of a statement and reason. Which option relating to the statement and reason is correct?

**Statement**

Beech is recommended for external joinery.

**Reason**

Beech is extremely durable due to its high oil content.

- a Statement true Reason false.
- b Statement false Reason true.
- c Statement false Reason false.
- d Statement true Reason true.

58 A carpenter is ordering timber from a merchant and has the option to order timber that will be kiln dried to a specific moisture content. Match the moisture content in List 1, with the end position the timber is to be used in List 2.

**List 1**

- 1 7-9%
- 2 11-13%
- 3 14-16%
- 4 17-19%

**List 2**

- W Windows
- X Architraves
- Y Radiator covers
- Z Ground floor joists

	W	X	Y	Z
a	3	2	1	4
b	1	2	3	4
c	2	3	1	4
d	1	2	4	3

59 A carpenter has been tasked with ordering a replacement saw blade for a bench rip saw. The rip saw is designed to take a 700 mm diameter saw blade. Calculate the **minimum** saw blade diameter that can be ordered for the machine to ensure the HSE guidance is met?

- a 350 mm
- b 420 mm
- c 500 mm
- d 550 mm

60 Timber that is known to be case hardened is to be cut on a circular rip saw. What **must** be available to the operative to prevent the timber binding and kickback?

- a A mallet, a wedge and push stick.
- b A wedge, a push block and hammer.
- c A saddle board, a push stick and jig.
- d A push block, a jig and saddle board.

**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?