

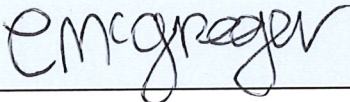
CPCBC4014A

PREPARE SIMPLE BUILDING SKETCHES AND DRAWINGS

THEORY EXAM INSTRUCTIONS

- This exam will occur under standard assessment conditions.
 - An oral examination may be allowed under certain circumstances. Answers will be documented and FT003 (Oral examination declaration form) must be completed.
- Participants must provide enough detail in their responses to demonstrate their knowledge and skills.
- Please fill in the details below, providing your name, signature and date of assessment.
 - Your signature acknowledges that this is your own work.
- If a participant initially answers a question incorrectly but modifies their response, they must follow the instructions below:
 - If a participant changes their response in writing, they must put their initials next to the written change.
 - If a participant changes their response verbally, this must be noted on the exam paper by the assessor.

Participant name Chloe McGregor

Participant signature 

Assessor name _____

Assessor signature 

Date 27/05/2019

Number of questions	Number of questions answered correctly	Satisfactory?	
		Yes	No
23		☐	☐

Q1. Identify three (3) two-dimensional drawings/sketches that may be used to clarify or communicate ideas to clients or other parties. For each drawing/sketch, identify four (4) key features that may be shown.

Answer

Drawing/sketch type	Key features
Design/Sketch Drawings	Design/sketch drawings identify key features to set out ideas to clients regarding the room relationships, room sizes, house orientation, the stylistic treatment of the house, colour schemes and landscaping.
Working/Construction Drawings	Working drawings identify key features to show the finalised design and indicate the exact arrangement of spaces, their sizes, materials from constructions and specific details to enable the building to produce the home.
Land boundaries, contours and footprint of building	Land boundaries, contours and footprint of building shows the boundaries, critical adjoining parts of surrounding properties, levels on the site and the locality and the positioning of the building or structure on the land



Q2. Name two (2) advantages of a three-dimensional sketch/drawing.

Answer

There are many advantages of three-dimensional drawings, for example 3D drawings provide a more realistic picture of the space, but requires more time to develop. However, there are a number of software programs available to assist with their development. .



Q3. Name one (1) individual you might contact to establish the scope and standard of the job being undertaken.

Answer

One individual that needs to be contacted to establish the scope and standard of the job is the builder. The builder needs to be fully prepared when heading out for site visits by ensuring they are update with any existing paperwork, additional forms if needed to complete on site and considering health and safety requirements.



- Q4. You need to inspect the relevant area to take measurements for your drawings/sketches. Identify two (2) safety requirements you would need to observe on site.**

Answer When onsite completing site sketches, safety requirements are needed to be in place. On-site health and safety is everyone's responsibility and the PCBU has a duty to ensure, as far as practicable, that people on site are not exposed to hazards in the workplace. Safety requirements may be set out in a range of documents such as, *Work Health and Safety Act 2011* (Qld), *Work Health and Safety Regulation 2011* (Qld), Codes of practice, Workplace policies, procedures, processes and systems and Job Safety Analyses, Safe Work Method Statements.

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- Q5. Identify two (2) types of tools/equipment you would use when inspecting the area to take measurements.**

Answer When attending site, accurate measurements and levels which will be used throughout the project, therefore using the right tools and equipment will gather all the information needed. For example, a measuring wheel is used to quickly measure long distances and a gradient level is used to measure angels as a degree.

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- Q6. Identify two (2) types of tools/equipment you might need when completing sketches/drawings.**

Answer Two types of equipment needed to complete sketches on site is a Probing metal stake, which is used to determine the location of septic tank lids and leach drains for an existing structure, always dial before you probe. Writing and sketching equipment such as pencils, rubbers and pens are also an important necessity.

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- Q7. What action should be taken if any of the tools/equipment identified in Q5. and Q6. are found to be defective? Tick your response.**

Answer	Choice	Possible Answers
	☐	Report, Record
	☐	Stop, Report, Record
	☒	Stop, Tag, Report, Record
	☐	Stop, Fix, Report, Record

☐

Q8. True or False (Tick your response): It is best practice to double check measurements before recording them.

Answer

☒	True
☐	False

☐

Q9. Explain the purpose of the scale on sketches/drawings.

Answer

The purpose of scale on sketches/drawings is that buildings are drawn in proportion to the actual measurement of the object which is known as the scale of the drawing.

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Q10. You have measured a wall that is 2.4m high. Using a scale of 1:100, what size will this be drawn? Provide your answer in mm. Show your workings.

Answer

A vertical line is drawn and labeled 'Wall' to its left. To the right of the line, it says '← 2.4m high'. Below this, the calculations are written:

$$2.4 \times 1 \div 100 = 0.024m$$

$$0.024m = 0.024 \times 1000 = 24mm$$

☐

Q11. Explain the purpose of a key or legend on sketches/drawings.

Answer

The purpose of having a key/legend on sketch/drawings is to ensure whoever is reading the plan can look at the legend to define a symbol or special mark. It is important to understand the meaning of the symbols to ensure the building works goes to the exact plan. For example, site plan will have a legend with different symbols showing where/if any trees, signs, storm water, meter, electrical box and much more are on the block.

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Q12. Which of the following are true about drawing contours?
Tick all that apply.

Answer

Choice	Possible Answers

☐

☒	Equally spaced contour lines indicate uniform slope
☐	Closely spaced contour lines indicate flat surface
☒	Closely spaced contour lines indicate steep ground
☒	Concentric closed contours with decreasing values toward the centre indicate a pond
☒	Concentric closed contours with decreasing values toward the centre indicate a hill

Q13. Identify the Volume and Parts of the NCC that relate to metal sheet roof cladding for Classes 1 and 10, and Classes 2 to 9.

Answer

Classes 1 and 10	Classes 2 to 9
Table 3.5.1.1a ACCEPTABLE CORROSION PROTECTION FOR SHEET ROOFING	Table 3.5.1.1a ACCEPTABLE CORROSION PROTECTION FOR SHEET ROOFING

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Q14. Which Australian Standard is referenced in the NCC with regards to the requirements for the design and installation of metal sheet roof cladding?

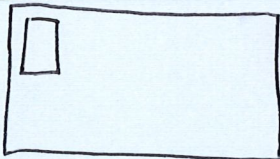
Answer

3.5.1.3 Metal sheet roofing
2016 NCC 2016 Volume Two Part 3.5 Roof and Wall Cladding Part 3.5.1 Roof Cladding

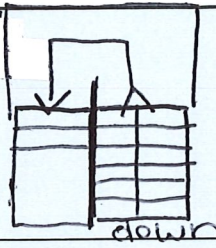
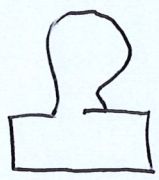
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Q15. Sketch the following standard design symbols.

Answer

Item	Sketch
Compass (North)	 North point
Sink with one bowl	 Sink Single bowl. Locate bowl as required.

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Stairs	
Toilet	 W.C. closed coupled (toilet)

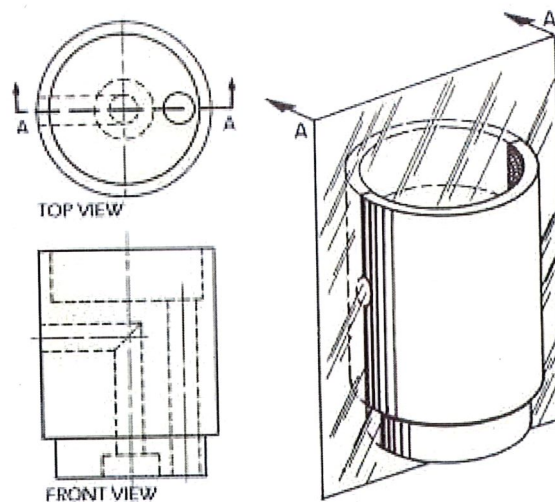
Q16. Explain the meaning of the abbreviations in the table below.

Answer

Abbreviation	Meaning
BK	Brick
CBD / CPD	Cupboard
DP	Downpipe
INSUL	Insulation
KIT	Kitchen
MSB	Main Switch Board
PBD	Plasterboard
RWT	Rain water tanks
SHR	Shower
TEL	Telephone
WC	Toilet

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Q17. True or False (Tick your response): The dashed/chain lines on the section view shown below represent the portions that have been in contact with the cutting plane.



Source: https://www.mcvt.net/cms/lib/NJ01911694/Centricity/Domain/131/Section_Views.pdf

Answer

☒	True
☐	False

☐

Q18. Explain the use of hatching lines for sectional drawings.

Answer

A section view is used on a drawing to show an area or hidden part of an object by cutting away or removing some of that object. The hatching lines represent the material type in contact with the cutting plane, as illustrated by the key/legend.

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Q19. True or False (Tick your response): In an offset sectional drawing, the cutting plane does not travel in a straight line.

Answer

☒	True
☐	False

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Q20. Which of the following information should be included in the title block for a sketch/drawing? Tick all that apply.

Answer

Choice	Possible Answers
☒	Client details
☒	Contact details for person who prepared drawings
☒	Date drawing was completed
☒	Drawing number
☒	Drawing title
☒	Job number
☒	Project name and address
☒	Revisions / Amendments (if applicable)
☒	Scale

☐

Q21. True or False (Tick your response): Amendments usually have to be signed or initialled by both the builder and the client to show they both agree.

Answer

☒	True
☐	False

☐

Q22. Explain why it is good practice to have a single repository for sketches/drawings.

Answer

It's best to practise always double-checking measurements before recording them. By using this procedure, it will avoid making simple mistakes during preliminary stage which can cause costly mistakes down the track, for Contracts Administer stage and Construction Stage. By making good incursions into the fabric of the building to obtain all the measurements needed to develop the drawings.



Q23. Name the Regulation and identify the section that outlines the requirement for structure designers to produce a safety report. Briefly describe the requirements.

Answer

Section of Act	Requirements
Section 274 of the Work Health and Safety Act (the WHS Act)	An approved code of practice is a practical guide to achieving the standards of health, safety and welfare required under the WHS Act and the Work Health and Safety Regulations (the WHS Regulations). Such as preparing Working drawings and Engineering.

