CPCCBC4001A
APPLY BUILDING CODES AND STANDARDS TO THE CONSTRUCTION PROCESS FOR LOW RISE BUILDING PROJECTS
ASSESSMENT SUMMARY

The assessment activities for *CPCCBC4001A Apply building codes and standards to the construction process for low rise building projects* cover all aspects of the unit of competency required. To demonstrate competence in this unit, a participant must undertake all tasks and complete them satisfactorily and consistently. For Apprentices and Trainees, this includes employer completion of the Employer Record Book (ERB).

Participants must read all the information given before starting any assessment task. The assessment tasks are intended to be equitable, fair and flexible. If a participant has any questions or requires alternative arrangements to be made such requests should be directed to their Trainer/Assessor, who should note such arrangements in the 'Assessor Comments' on the affected assessment. If a participant feels they are not yet ready to be assessed, they should discuss their options with their Trainer/Assessor.

To satisfactorily complete the assessment, the participant is required to answer all questions correctly and demonstrate their skills to industry standards. If a participant does not answer some questions or perform some tasks, they will be deemed 'Not Satisfactory' for the task and 'Not Yet Competent' for the unit of competency. The Trainer/Assessor is able to provide the participant with additional information on interpreting the assessment outcomes and provide guidance on the participant's options. Should a participant still be deemed 'Not Satisfactory' they will have the opportunity to undertake a supplementary assessment or appeal the result.

By signing the cover page for each assessment item, the participant acknowledges they understand the assessment instructions and requirements and consent to being assessed. The participant also verifies and assures the RTO that the work submitted is their own work.

Participant Name	Michael Lewis

Task	**Assessment Results**	
Theory Exam	☐ Satisfactory	☐ Not Yet Satisfactory
Practical Assessment	☐ Satisfactory	☐ Not Yet Satisfactory
Outcome for Unit of Competency	☐ **Competent**	☐ **Not Yet Competent**

Assessor Name	
Assessor Signature	
Unit Competence Determination Date	Click here to enter a date.

CPCCBC4001A
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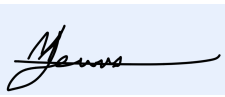
THEORY EXAM INSTRUCTIONS

- This exam will occur under standard assessment conditions.
  - An oral examination may be allowed under certain circumstances, whereby the Participant's answers will be documented by a party other than the Participant. This must be acknowledged in writing (e.g. FT001 and Assessor Comments)
- 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.
- Assessors are to complete marking in pen of a different colour to the Participant.
- 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: Michael Lewis

Participant signature: 

Date: 15/03/2021

Assessor name:

Assessor signature:

Date: Click here to enter a date.

Number of questions	Number of questions answered correctly	Task outcome (Tick)	
38		Satisfactory	Not Yet Satisfactory
		☐	☐

ASSESSOR COMMENTS

Q1. **A Performance Solution must abide by which of the following? Tick all that apply.**

Answer

Choice	Possible Answers
☑	Be assessed according to one or more of the Assessment Methods
☐	Go beyond the requirements of Deemed-to-Satisfy Provisions
☑	Comply with the Performance Requirements

☐

Q2. **True or False (Tick your response): The Performance Requirements of the National Construction Code can be achieved by using a Performance Solution, a Deemed-to-Satisfy Solution, or a combination of both.**

Answer

☑	True
☐	False

☐

Q3. **True or False (Tick your response): The term 'Performance Solution' in the NCC was formerly known as 'Alternative Solution'.**

Answer

☑	True
☐	False

☐

Q4. **Where a Performance Solution has been proposed, which of the following documentation should be prepared and retained? Tick all that apply.**

Answer

Choice	Possible Answers
☑	Details of the relevant Performance Requirements
☑	Assessment Methods used to establish compliance with the relevant Performance requirements
☑	Details of any Expert Judgement relied upon
☑	Details of any tests of calculations used to determine compliance with the Performance Requirements
☑	Details of any Standards or other information which were relied upon

☐

Q5. **True or False (Tick your response): Where a Deemed-to-Satisfy solution has been proposed, all relevant plans/specifications should be retained.**

Answer

☑	True
☐	False

☐

Q6. **Identify the Volume and Parts of the NCC that outline the Assessment Methods used to determine whether a Performance Solution or a Deemed-to-Satisfy Solution complies with the Performance Requirements for Classes 1 and 10, and Classes 2 to 9.**

Answer

Classes 1 and 10	Classes 2 to 9
Volume 2 Part A2.2	Volume 1 Part A2.2

☐

Q7. **Identify the Australian Standard that relates to artificial lighting needed for safe movement, as noted in the NCC.**

Answer AS/NZS 1680.0 ☐

Q8. **Identify the Volume and Parts of the NCC that outline the requirements for artificial lighting needed for safe movement for Classes 1 and 10, and Classes 2 to 9.**

Answer

Classes 1 and 10	Classes 2 to 9
Volume 2 – Part2.4.4 (B)	Volume 1 – Part F4 FP4.2

☐

Q9. **Fill in the blanks for the statement below, referring to Volume 1 of the NCC with regards to lighting:**

Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements FP4.1 to FP4.5 are satisfied by complying with

(i) F4.1 to F4.12; and

(ii) For a building containing an occupiable outdoor area, Part G6; and

(iii) for farm buildings and farm sheds, Part H3.

Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2.2(3) and A2.4(3) as applicable.

Answer

Q10. **Fill in the blanks for the statement below, referring to Volume 2 of the NCC with regards to light:**

Where an alternative light system is proposed as a Performance Requirement to that described in Part 3.8.4, that proposal must comply with –

(a) Performance Requirement P2.4.4; and

(b) the relevant Performance Requirements determined in accordance with A2.2(3) and A2.4(3) as applicable.

Answer

Q11. **Identify the Australian Standard that relates to each of the listed types of fire fighting equipment, as noted in the NCC.**

Answer

Equipment	Australian Standard
Fire hydrants	AS 2419.1
Fire hose reels	AS 2441
Portable fire extinguishers	AS 2444
Smoke alarms	AS 3786

Q12. **For each of the listed types of fire fighting equipment, identify whether they are required by the NCC (if so, identify the relevant Part).**

Answer

Equipment	Volume 1	Volume 2
Fire hydrants	Yes Part E1.3	N/A
Fire hose reels	Yes Part E1.4	N/A
Portable fire extinguishers	Yes Part E1.6	N/A
Smoke alarms	Yes Part E2.2A	Yes Part 3.7.5.2

Q13. **Identify the applicable Act in your jurisdiction that outlines the requirements for smoke alarm installation in domestic dwellings. Briefly identify the requirements.**

Answer

Act name and section(s)	Requirements
Building Act 1975 Building Regulation 2006	A smoke alarm must be installed in each bedroom of the domestic dwelling, in a place that complies with section 13AD. (2) Each smoke alarm must— (a) comply with AS 3786–2014; and (b) contain a photoelectric sensor; and (c) not also contain an ionisation sensor; and (d) be hardwired to the domestic dwelling's electricity supply; and (e) be interconnected to every other smoke alarm installed in the dwelling. (3) A smoke alarm (the first smoke alarm) is interconnected to another smoke alarm if— (a) the first smoke alarm sounds an alert if the other smoke alarm is activated because its sensor detects smoke; and (b) the other smoke alarm sounds an alert if the first smoke alarm is activated because its sensor detects smoke. (4) Subsections (1) and (2) do not apply to a sole-occupancy unit in a class 2 building if a smoke detection system that complies with the BCA, specification E2.2a, clause 4 has been installed in the domestic dwelling. (5) If the BCA is inconsistent with this section, this section prevails to the extent of the inconsistency.

Q14. **Identify the applicable Act in your jurisdiction that outlines the requirements for testing smoke alarms in domestic dwellings. Briefly identify the requirements.**

Answer

Act name and section(s)	Requirements
Fire and emergency services act 1990 Division 5A 104RD	104RD Testing smoke alarms (1) Within 30 days before the start of a tenancy in a domestic dwelling, the lessor must test each smoke alarm in the dwelling in compliance with section 104RAA(3). Maximum penalty—5 penalty units. (2) During a tenancy in a domestic dwelling, the tenant must test each smoke alarm in the dwelling, in compliance with section 104RAA(3), at least once every 12 months. Maximum penalty—5 penalty units.

Q15. **Identify the applicable Act in your jurisdiction that outlines what must occur if smoke alarm in a domestic dwelling does not operate upon testing and when any rectification must occur. Briefly identify the requirements.**

Answer

Act name and section(s)	Requirements
Fire and emergency services act 1990 Section 104RC	If a smoke alarm in a domestic dwelling does not operate when tested, the owner of the dwelling must immediately replace the smoke alarm under this section.

Q16. **In observation of NCC Volume 2, identify three (3) aspects which should be checked with regards to smoke alarms.**

Answer

Requirements, location & installation

Q17. **Must all smoke alarms be interconnected in domestic dwellings? Explain your response with reference to legislation.**

Answer

Yes they should all be interconnected as per Division 5A – Smoke alarms for domestic dwellings 104RBA (5) (e)

Q18. **Fill in the blanks for the definition of fire compartments, referring to Volume 1 of the NCC:**

Fire compartment means –

(a) The total space of a building; or

(b) When referred to in –

(i) The Performance Requirements – any part of a building separated from the remainder by Barriers to fire such as walls and/or floors having an appropriate resistance to the spread of fire with any openings adequately protected; or

(ii) The Deemed-to-Satisfy Provisions – any part of a building separated from the remainder by Walls and/or floors each having an FRL not less than that required for a fire Wall for that type of construction and where all openings in the seperating construction are protected in accordance with the DtS Provisions of the relevant Part.

Answer

Q19. **Identify the Volume and Parts of the NCC that outline the requirements for fire compartmentation and separation for Classes 1 and 10, and Classes 2 to 9.**

Answer

Classes 1 and 10	Classes 2 to 9
Volume 2 Section 3 Part 3.7.2, 3.7.3, 3.7.4	Volume 1 Section C Part C2

Q20. **Fill in the blanks for the statement below, referring to Volume 1 of the NCC with regards to fire compartmentation and separation:**

Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements CP1 to CP9 are satisfied by complying with

(i) C1.1 to C1.14, C2.1 to C2.14 and C3.1 to C3.17; and

(ii) in a building containing an atrium, Part G3; and

(iii) for additional requirements for Class 9b buildings, Part H1; and

(iv) for farm sheds, Part H3.

Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2.2(3) and A2.4(3) as applicable.

Answer

Q21. **Fill in the blanks for the statement below, referring to Volume 2 of the NCC with regards to fire separation:**

Where an alternative fire separation design is proposed as a Performance Solution to that described in Part 3.7.2 that proposal must comply with Performance Requirement P2.3.1; and the relevant Performance Requirements determined in accordance with A2.2(3) and A2.4(3) as applicable.

Answer

Q22. **Identify the Australian Standard referenced in NCC Volume 1 with regards to compartmentation and separation for electricity supply systems.**

Answer Volume One Section C Part C2.13

Q23. **Identify the Volume and Parts of the NCC that outline the level of fire resistance required for Classes 1 and 10, and Classes 2 to 9.**

Answer

Classes 1 and 10	Classes 2 to 9
Volume 2 Part 2 Schedule 5	Volume 1 Section C Part C1

Q24. **In a building's specifications, an FRL is stated as being 90 / 60 / -. If exposed to a standard fire test, how many minutes can you expect this building element to last for the criteria listed below?**

Answer

Minutes	Criteria
-	Insulation
60	Integrity
90	Structural adequacy

Q25. **Fill in the blanks:**

According to NCC Volume 1, an electricity substation located within a building must be separated from any other part of the building by construction having an FRL of no less than ____120____ / ____120____ / ____120____ and have any doorway in that construction protected with a self-closing fire door having an FRL of not less than ____-____ / ____120____ / ____130____.

Answer

Q26. **Fill in the blanks:** According to NCC Volume 2, if an electrical wire or cable penetrates a separating wall, the service and building element at the penetration must be identical with a prototype assembly which has been tested and achieve an FRL of not less than ____-____ / ____60____ / ____60____.

Answer

Q27. **Identify the applicable Act in your jurisdiction that outlines the occupier's requirements for maintaining prescribed fire safety installations (e.g. fire doors). Briefly identify the requirements.**

Answer

Act name and section(s)	Requirements
Fire & emergency services act 1990 Section 104D	The occupier of a building must maintain at all times every prescribed fire safety installation to a standard of safety and reliability in the event of fire

Q28. **Identify the applicable Regulation in your jurisdiction that outlines the timeframes in which repair or corrective action must be taken when maintaining prescribed fire safety installations. Briefly identify the requirements.**

Answer

Regulation name and section(s)	Requirements
Building Fire Safety Regulation 2008 Division 3 – 54 (4)	The occupier of the building must ensure the repair is carried out or the corrective action is taken no later than 1 month after the maintenance of the installation was carried out, unless the occupier has a reasonable excuse

Q29. **NCC Volume 1 outlines that fire doors must be fitted with smoke seals and the assembly must be tested in accordance with Australian Standards. To which classes of building does this specification apply?**

Answer Class 5 or 6 building

Q30. **Do all fire doors require tags? Explain your response with reference to legislation.**

Answer Under the Building Act 1975, all buildings approved after 1 April 1976 require tags to be fitted to the fire doors. Fire doors that have been replaced after 1 April 1976 also require tags to be fitted. Buildings approved before this date are not required to have tags fitted to the fire doors unless required by the local authority at the time of approval. Fire doors need to be tagged in accordance with Australian Standard AS/NZS 1905.1-2005. The information on the tag must include: » The component standard – AS/NZS

1905.1-2005 » Fire resistant Level – e.g. -/60/30 » Manufacturer's name (Company name) » Applicant's name » Certifier (Company name) » Door tag number » Year of manufacturing

Q31. **Match the building classifications and their descriptions by writing the appropriate letter next to each number in the centre column.**

Answer

Classification		Answers	Description	
1	Class 1	1 - E	A	A non-habitable building or structure.
2	Class 2	2 - H	B	A laboratory or a building in which a handicraft or process for the production, assembling, altering, repairing, packing, finishing or cleaning of goods or produce is carried on for trade, sale or gain.
3	Class 3	3 - C	C	A residential building other than Class 1 or 2 which is a common place of long term transient living for a number of unrelated persons.
4	Class 4	4 - D	D	A dwelling in a building that is Class 5, 6, 7, 8 or 9 if it is the only dwelling in the building.
5	Class 5	5 - F	E	May be a single dwelling or a boarding house, guest hose or hostel with a floor area less than 300m^2.
6	Class 6	6 - G	F	An office building used for professional or commercial purposes, excluding buildings of Class 6, 7, 8 or 9.
7	Class 7	7 - I	G	A shop or other building for the sale of goods by retail or the supply of services direct to the public.
8	Class 8	8 - B	H	A building containing 2 or more sole-occupancy units, each being a separate dwelling.
9	Class 9	9 - J	I	A building which is a carpark or fore storage/display of goods or produce for sale by wholesale.
10	Class 10	10 - A	J	A building of a public nature.

Q32. **What class of building would shops, restaurants and cafes belong to?**

Answer Class 6

Q33. **What class of building would a general medical practitioner's office belong to?**

Answer Class 9 ☐

Q34. **True or False (Tick your response): At the design stage, it may not be clear who the final tenant will be (or how they will be using their tenancy), so as long as the design meets the minimum requirements of all the classifications, it could be used for any of the purposes.**

Answer

☑	True
☐	False

☐

Q35. **Where parts of a building have different purposes, the classification of Class 1 may apply to the whole building if not more than what percentage of the floor area is used for a purpose which is a different classification? Tick your response.**

Answer

Choice	Possible Answers
☐	5%
☑	10%
☐	25%
☐	50%

☐

Q36. **The NCC aims to ensure structures appropriately withstand normal forces. Match the terms and definitions below by writing the appropriate letter next to each number in the centre column.**

Answer

Term		Answers
1	Bending	1 - B
2	Compression	2 - A
3	Shear	3 - F
4	Strain	4 - E
5	Stress	5 - D
6	Tension	6 - C

Definitions	
A	A force which shortens or crushes.
B	A fore which stretches and squashes at the same time.
C	A force which tries to pull something apart.
D	Intensity of the internally distributed forces that resist a change in the form of a body.
E	Physical change in the dimensions of a structure that results from applying a load.
F	Created where two opposite forces try to cut, tear or rip something in two.

☐

Q37. **True or False (Tick your response): When a beam is loaded, the top is compressed and the bottom is in tension.**

Answer

☑	True
☐	False

☐

Q38. **True or False (Tick your response): When a cantilever is loaded, the top surface is in tension and the bottom is in compression.**

Answer

☑	True
☐	False

☐

CPCCBC4001A
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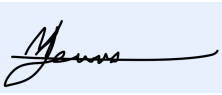
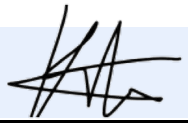
PRACTICAL ASSESSMENT INSTRUCTIONS

- The following practical assessment will require the Participant to complete work related activities.
- The Assessor will conduct observations of the Participant's work to determine whether they display sufficient practical skills and knowledge.
- Please fill in the details below – providing your name, signature and date of assessment.
    - The Participant's signature acknowledges that the Assessor provided clear instructions and the Participant understood what was required to complete this assessment.
- The Assessor may substitute a Practical Task with an alternate task of equal value.
    - Alternate tasks must be fully documented by the assessor in the Assessor Comments area.

Participant name	Michael Lewis
Participant signature	
Date	15/03/2021
Assessor name	Kieran Lewis
Assessor signature	
Date	15/03/2021

Task	Task outcome (Tick)	
	Satisfactory	Not Yet Satisfactory
Task 1 (Occasion 1)	☑	☐
Task 1 (Occasion 2)	☑	☐

ASSESSOR COMMENTS

CPCCBC4001A
APPLY BUILDING CODES AND STANDARDS TO THE CONSTRUCTION PROCESS FOR LOW RISE BUILDING PROJECTS

Practical Task 1 (2X)

Description of task:
On two (2) occasions, a suitable observer is to verify the participant's ability to access, interpret and apply relevant building codes and standards.

- Occasion 1: Construction classified as Class 1 and 10 construction
- Occasion 2: Construction classified in Classes 2 to 9 with a gross floor area not exceeding 2000 square metres, not including Type A or Type B construction

The participant is to gather evidence of how they have completed each component of the Practical Task, which is to be submitted with this Practical Assessment sheet.

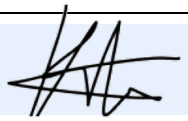
Evidence to be submitted may include:

- Documented evidence of determining a compliant solution on a project including:
  - Correspondence such as letters, emails, and records of other communications
  - Certifier reports, instructions
- Other compliance documentation for a project including:
  - Council or private certifier inspection reports
  - Structural inspection certificates
  - Occupation certificates

The observer is to provide detailed comments on the tasks completed by the participant. The assessor is to verify the observer's comments in the Assessor Comments section, and provide the Practical Assessment outcome on the front cover of this document.

Resources required:
Drawings and specifications, National Construction Code, Australian Standards, Relevant legislation.

Assessment of task

Name of participant:	Michael Lewis
Name of observer:	Kieran Lewis
Role of observer (Confirm suitability to sign)	Director
Email address of observer	kieran@jdlconstruction.com.au
Signature of observer:	
Date:	15/03/2021

When completing the task, did the participant:	**Tick if satisfactorily completed. Provide comments if left unticked.**	
	1st Occasion	**2nd Occasion**
1 Access and interpret codes and standards		
1.A. Identify relevant performance requirements from the National Construction Code that apply to individual projects described as low rise.	☑	☑
1.B. Determine requirements of relevant National Construction Code deemed-to-satisfy (DTS) provisions.	☑	☑

1.C. Access and interpret requirements of relevant Australian standards referenced in the National Construction Code.	☑	☑
2 Classify buildings		
1.2A. Determine the nature of building according to its use and arrangement.	☑	☑
1.2B. Apply National Construction Code criteria to determine the defined classification.	☑	☑
1.2C. Identify and interpret National Construction Code requirements for multiple classification.	☑	☑
3 Solutions for compliance		
1.3A. Determine range of criteria to ensure that construction methods comply with National Construction Code performance requirements.	☑	☑
1.3B. In accordance with company policy and procedures, discuss and propose alternative solutions to a design or construction problem that complied with National Construction Code requirements, considering basic design principles and the behaviour of materials and structures under stress, strain, compression, bending or combined actions.	☑	☑
1.3C. Identify and document performance-based solutions in accordance with National Construction Code requirements.	☑	☑
1.3D. Analyse and apply assessment methods referenced in the National Construction Code to determine whether a building solution complied with performance requirements or DTS provision.	☑	☑
1.3E. Identify and complete relevant documentation in accordance with National Construction Code requirements.	☑	☑
1.3F. Effectively communicate using the following methods: • Language/concepts appropriate to cultural differences • Non-verbal communication	☑	☑
4 Fire protection requirements		
1.4A. Identify and apply passive and active fire control elements for low rise buildings, as required by the National Construction Code and other legislation (including WHS requirements).	☑	☑
1.4B. Determine level of fire resistance required for the construction of various low rise buildings.	☑	☑
1.4C. Check existing buildings for compliance with passive and active fire protection requirements, in accordance with National Construction Code requirements.	☑	☑

The Participant's performance was: ☑ Satisfactory ☐ Not Satisfactory

OBSERVER COMMENTS