



CPCCBC4001A

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

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

Sarah Teunissen

Participant signature

STN

Assessor name

Assessor signature

Date

Click here to enter a date.

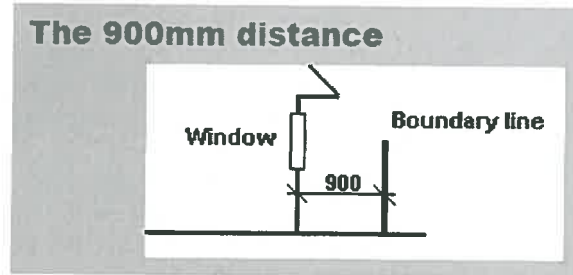
5/1/18

Number of questions	Number of questions answered correctly	Satisfactory?	
		Yes	No
35		☐	☐



ASSESSOR COMMENTS

- Q1. The diagram below represents an external house wall, shows part of roof and eave and a window in the wall and the vertical boundary line fence is shown a prescribed measurement of 900mm from the house wall to allow light from the sun to reach the window.



What type of regulation could allow a lesser distance to be used if appropriate justification was provided?

In what document/s might you find the appropriate information?

Answer

If the lesser distance achieves the same result for ~~reflected~~ light and it complies with local government laws and other requirements under BCA such as Fire requirements.



- Q2. In regard to the above 900mm distance from house wall to boundary fence and in using or referencing performance-based regulations in the BCA what else should you be aware of and consider?

Answer

Local government planning requirements / laws and other requirements under BCA such as fire requirements.





Q3. Who has responsibility for producing and maintaining The Building Code of Australia (BCA) and who is it done on behalf of?

Answer

Australian Building Codes Board



Q4. Fill in the missing words to complete the following two sentences.

- a. The BCA is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia.
- b. It is a performance-based document that is referenced so that your building system or material can demonstrate that it meets certain performance requirements in order to meet legislative requirements.

Answer



Q5. What is the principal goal of the Building Code of Australia (BCA)?

Answer

To achieve national consistent standards of safety, health, amenity & sustainability objectives.



Q6. How many volumes are there in the BCA and to what do the volumes refer?

Answer

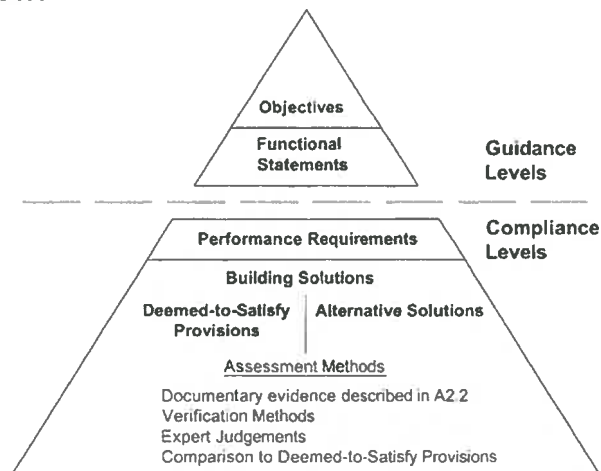
2 volumes.



Vol 1 - class 2-9 buildings.
- access requirements for disabled people in class 1b & 10a
- Certain 10b.

Vol 2 - class 1 & 10a buildings
- Certain class 10b
- Class 10c.

Q7. Explain the BCA performance requirements for low rise projects from the diagram below.



Answer

Objectives - the reason the matter is regulated.

Functional statement - how a building could be expected to meet the objective.

Performance requirements - performance levels that must be met by materials, designs, construction methods to meet functional statements.

Building Solutions - these set out the means of achieving compliance with performance requirements.

Q8. What is the intent of the 'Relevant Performance Requirements' in the BCA?

Answer ☐ Set out the method for determining the appropriate Performance Requirements to be used for Alternative Solutions, providing it complies with BCA.

Q9. Building solutions set out the means of achieving compliance with the performance requirements. The BCA provides for two methods that can be followed to develop a building solution. Explain these two methods.

Answer ☐ Deemed to satisfy provisions - Examples of materials, components, design & construction methods & if used will comply with performance requirements. Alternative solutions - No obligation to use materials, components, design & construction methods listed as long as ~~the design~~ design complies with relevant performance requirements. An approval authority may still issue an approval.

Q10. The deemed-to-satisfy building solution establishes a clear and concise process for compliance for a builder, building surveyor or the like (building certifier) who does not want to develop a new means of achieving performance requirements; what does 'deemed-to-satisfy' mean?

Answer ☐ ~~That~~ That the building solution complies in an equivalent way to the provision.



Q11. Write an example of a 'deemed-to-satisfy' provision for a class 1 building including deemed-to-satisfy requirements for kitchen, bathroom, laundry and sanitary facilities.

Nominate where you found the information in the BCA.

Answer



Class 1 Building must be provided with:

- bath or shower
- toilet and basin
- laundry sink and space for washing machine in close proximity
- kitchen sink and food preparation and cooking facilities.

NCC 2016 Volume 2 - P.2.4.3
page 78.

Q12. Who and what is Standards Australia?**Answer**

Australia's Standard's body,
An independant organisation
that develops the Australian
Standards in consultant with
governnements and user groups.

**Q13. What are Australian Standards?****Answer**

Published documents that outline
procedures and specifications to
ensure products, services and
systems are reliable, safe and
perform as intended.





Q14. The classification of a building or part of a building is determined by the purpose for which it is designed, constructed or adapted to be used. Please summarise the 10 building classifications below.

Answer

Class	Summary
1	One or more buildings which in association constitute - a single dwelling or boarding house/hosts
2	A building containing 2 or more sole-occupancy units each being a separate dwelling
3	A residential building other than class 1 or 2.
4	A dwelling in a building of Class 5, 6, 7, 8 or 9 if an only dwelling.
5	An office building for professional or commercial purposes except if Class 6, 7, 8 or 9.
6	A shop or other building selling goods by retail or services to public.
7	A building which is a carpark or a storage or goods display building.
8	A laboratory or building for production, assembling, altering, repairing, packing, finishing or cleaning goods for sale
9	A building of public nature, healthcare, assembly, aged care.
10	Non-habitable building or structure.



- Q15. Other than the 10 BCA building classifications (A3.2), there are also multiple classifications (A3.3) where each part of a building is classified separately.

Where would you find a full list of Past A3 classification of Buildings and Structures?

Answer

NCE 2010 Volume 1 - A3.3
page 38.

☐

- Q16. True or False (Tick your response): If a building or part of a building has more than one classification applying to the whole building or part in accordance with, that building or part must comply with all the relevant provisions of the BCA for each classification.

Answer

☒	True
☐	False

☐

- Q17. Familiarity with plans and specifications for a project when interpreting a building solution and therefore trying to interpret clauses and other referenced documents in the BCA is important.

What do plans and specifications include?

Answer

Specifications, floor plans,
elevations + sections.

☐

- Q18. You must have a clear picture of the building to be constructed and be able to identify the criteria that you will need to compare to the Deemed-To-Satisfy (DTS). What is it you must also consider when constructing complex buildings?

Answer

The impacts of a BCA requirement
on other requirements.

☐



Q19. Complete the missing words from the sentence below and explain the difference between these points.

BCA Performance Requirements are mandatory and Deemed-to-Satisfy provisions are optional.

Answer

Performance requirements are a set of standards that must be met for design, materials, construction where PTS is a solution that equally complies to the provision.



Q20. What is a Building Solution?

Answer

a solution that complies with performance requirements and is an alternative solution, a solution that complies with PTS or a combination of both.



Q21. Referring to the BCA, what are the objectives of Section C Fire Resistance?

Answer

Objectives are no longer used in the NCC. All terms have been deleted.

As have functional statements.

*refer page 769 of Volume 1, NCC 2016.





Q22. Why is it necessary to identify and document performance-based solutions?

Answer

- comply with processes & procedures
- apply & interpret documents & codes
- correctly apply OTS rules
- identify faults impacting on OTS



Q23. In the context of the Building Code of Australia what are Assessment Methods used to determine?

Answer

If a building solution complies with relevant performance requirement.



Q24. Explain the importance of maintaining detailed documentation for a building project.

Answer

To ensure you have documentation to prove the building is compliant & can pass inspections & assessments,





Q25. With regard to detailed documentation what are some of the documents that must be provided and maintained by contractors?

Answer

- all calculations such as site area, floor area, windows.
- drawings with all notes
- specifications.
- details of alternative building solution.



Q26. Other than the Builder maintaining detailed documentation, who will also have responsibility to resolve and correct errors for any ambiguity identified in the plans?

Answer

The certifier



Q27. The threat of an accidental fire in a building and to prevent it are important to understanding fire and taking all steps to prevent or confine fire and to prevent fire spreading within the structure as well as to adjoining or adjacent buildings.

In this regard Fire Protection Systems are paramount and are subject to?

Answer

- Fire regulations.
- Building regulations
- Local Government laws
- Insurance requirements.
- Other authorities

Q28. Briefly explain the following fire definitions:

Answer

Term	Explanation
Fire	Fire is the rapid oxidation of a liquid, gas or solid substance accompanied by the release of heat & light.
Passive Fire Protection	is an integral part of the 3 components of structural fire protection & safety in a building.
Active Fire Protection	is an integral part of fire protection, uses motion and response to active devices.

Q29. The purpose of fire protection is to:

1. Prevent/reduce the possibility of fire and
2. Reduce the spread of fire within and around a building

Name the two categories or systems that provide measurement and arrangements for fire protection.

Answer

Active & passive systems



Q30. With respect to the general level of fire protection explain separately the terms 'Fire Load' and 'Fire Load Density'?

Answer

Fire load - the amount of heat that could be generated in an area.

Fire load density - is the fire load per unit of total floor area.



Q31. Using Volume 2 of the BCA respond to the following:

- Where in the BCA would you look to find requirements for building in bushfire prone areas for Class 1 and 10 buildings?
- Where in the BCA would you look to find requirements for building in bushfire prone areas for Class 2-9 buildings?
- What Australian Standard must be complied with to satisfy the Deemed to Satisfy Provisions for construction of Class 2 and 3 buildings in bushfire prone areas?

Answer

a)	Part 3.7, from page 249.
b)	Volume 1, Part 4.5, from page 367
c)	AS 3959 (page 368)



Q32. What is a *Fire Safety Schedule* and its relationship to the approval of development of a class 2 – 9 building?

Answer

List all essential fire safety measures to be installed in building & the standards to measure them against. This is supplied on approval of development.



Q33. What are building certifiers responsible for?

Answer

checking that building is compliant usually by visual inspections and certificates





Q34. What are building certifiers not responsible for?

Answer

Quality of the work.



Q35. Where in the BCA would you determine the level of fire resistance required for the construction of buildings?

Answer

For Class 2-9, Vol 1 section C, p83

For Class 1 & 10, Vol 2 section 3-7 p247

