

CPCCBC4004A

IDENTIFY AND PRODUCE ESTIMATED COSTS FOR BUILDING AND CONSTRUCTION PROJECTS

ASSESSMENT SUMMARY

The assessment activities for *CPCCBC4004A Identify and produce estimated costs for building and construction 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	Lorna Merrice
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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.

CPCCBC4004A

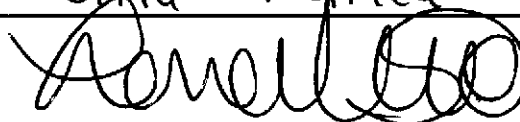
IDENTIFY AND PRODUCE ESTIMATED COSTS FOR BUILDING AND CONSTRUCTION PROJECTS

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

Participant signature

Lorna Merrice


Date

[Click here to enter a date.](#)

04.05.2021.

Assessor name

Assessor signature

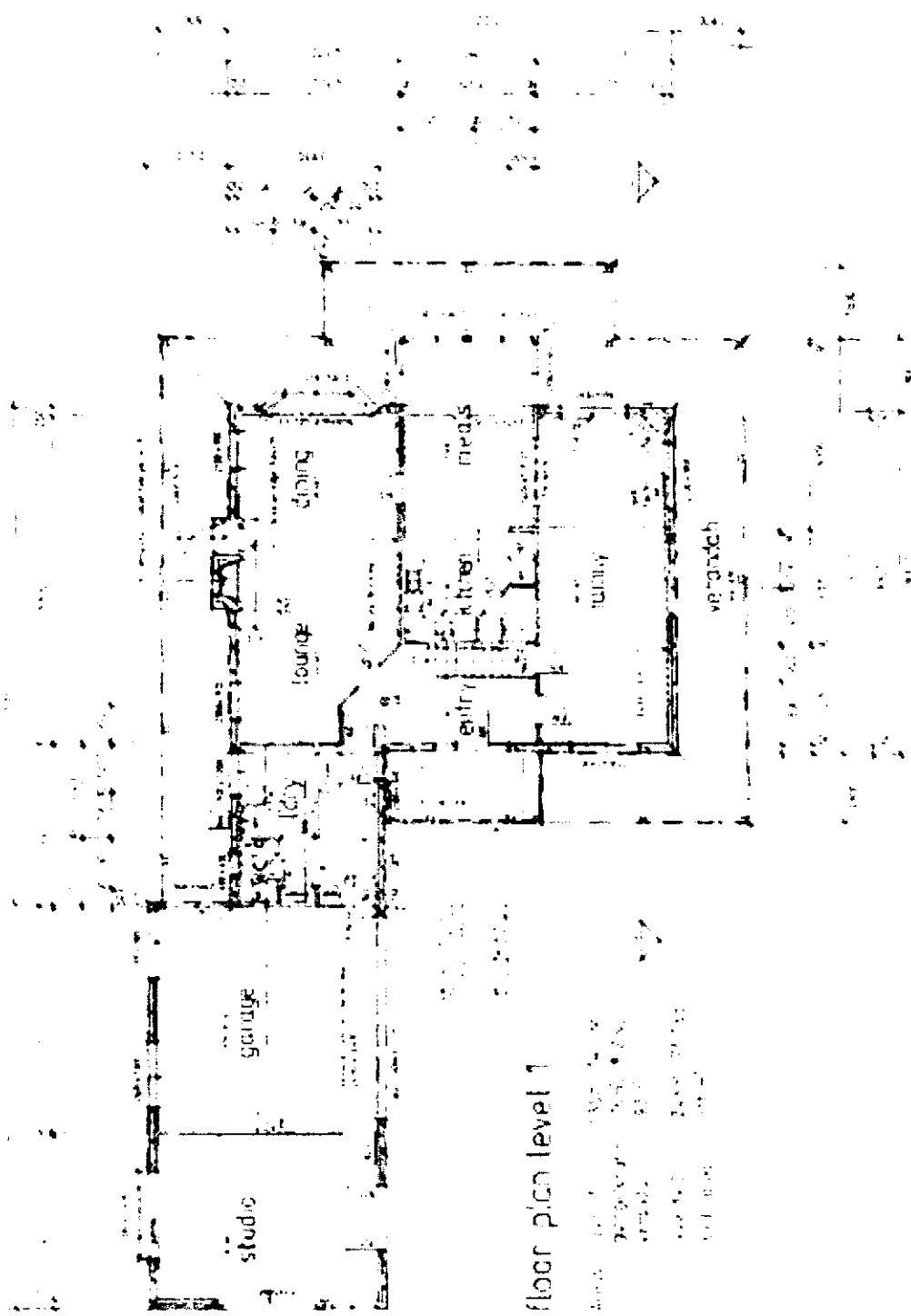
Date

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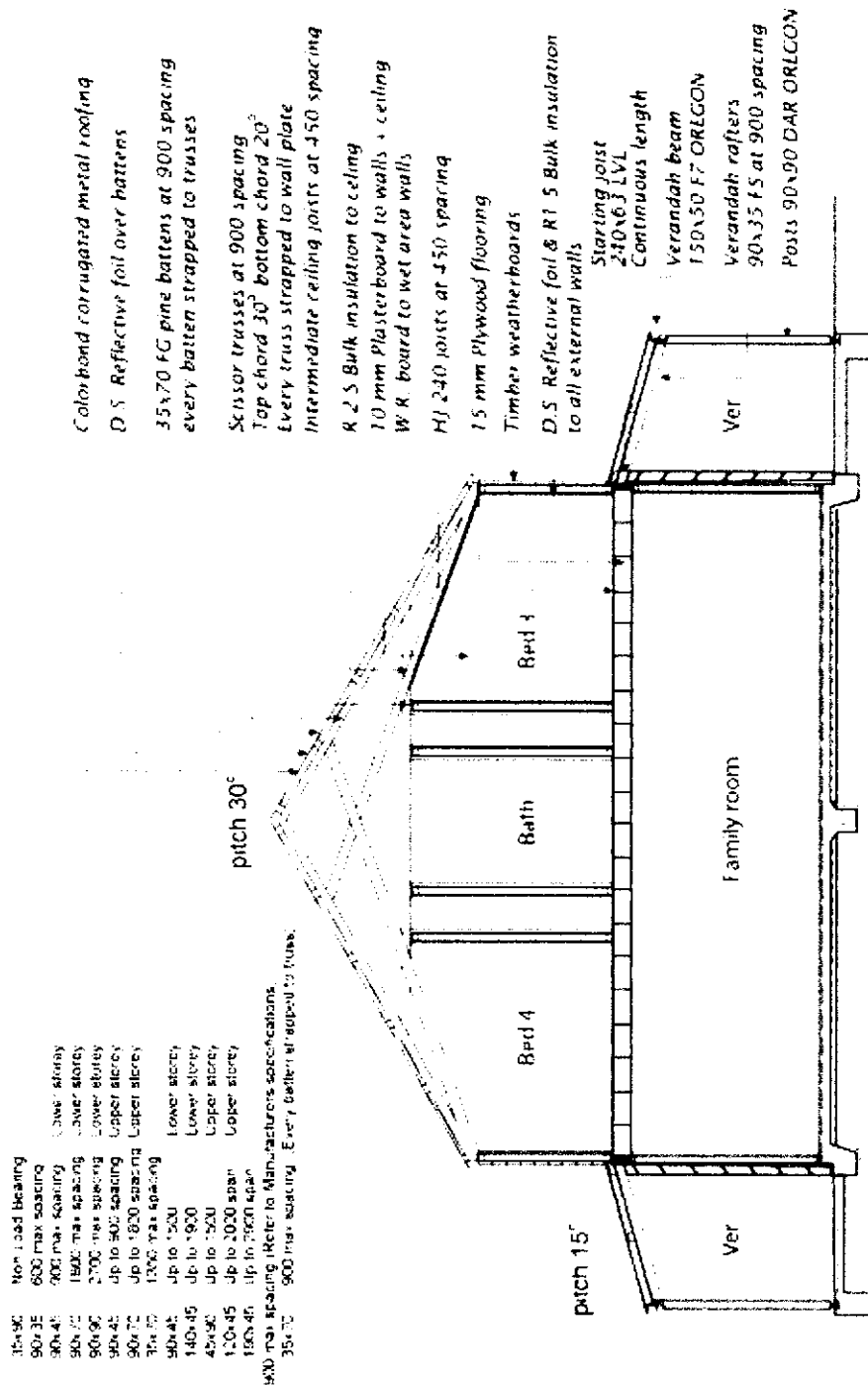
Number of questions	Number of questions answered correctly	Task outcome (Tick)	
		Satisfactory	Not Yet Satisfactory
37		☐	☐

ASSESSOR COMMENTS

Refer to the plans and specifications below to respond to Q1. to Q9.

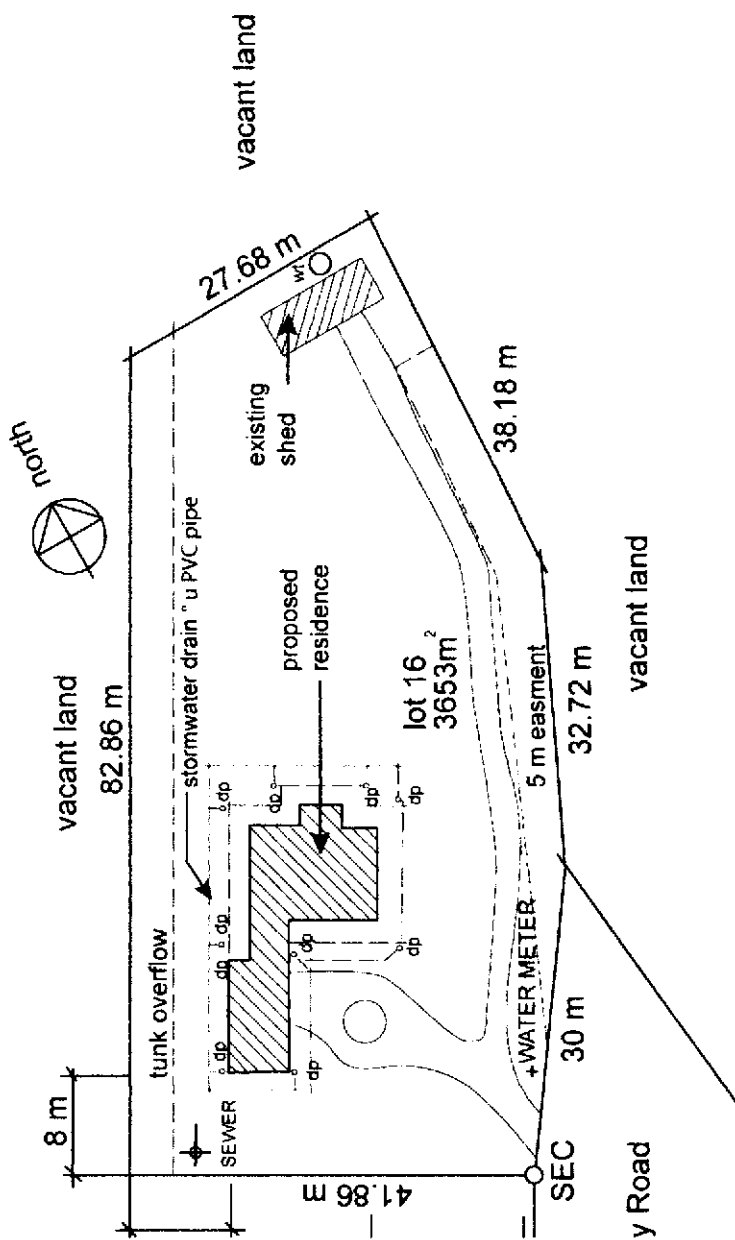


S	H&M Smith	North	drawn	DJA	date	scale	dig no	sheet	of	REVISIONS	Joe Foreman	Ph 03 9514 2311	Mob 0413 113 113	18 Farnham Road Richmond 3216
1	H&M Smith	North	drawn	DJA	11/10/07	1:50	WD 5733	5 of 7			Joe Foreman	Ph 03 9514 2311	Mob 0413 113 113	18 Farnham Road Richmond 3216
2	Glenvalley Road													
3	Richmond													



Section a-a
Refer to engineers drawing
for all footing details

Clients : H&M Smith Lot 16 Glenvalley Road Richmond	North	drawn : DJA date : 11/10/07 scale : 1 : 50 org no : WD 9733 sheet 5 of 7	REVISIONS	Joe Foreman Ph 03 9514 2311 Mob 0413 113 113 18 Fairview Road, Richmond 3216
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Site Plan 2

Clients : H&M Smith Lot 16 Glenvalley Road Richmond	North	drawn : DJA date : 11/10/07 scale : 1 : 500 drg no : WD 9733 sheet 6 of 7	REVISIONS		Joe Foreman Ph: 03 9514 2311 Mob: 0413 113 113 18 Fairview Road, Richmond 3216
			NO	DATE	
			BY		

Q1. Match the sheet numbers and document types by writing the appropriate letter next to each number in the centre column.

Answer

Sheet Number	Answers	Document Type
1 Sheet 4	1 - A	A Floor plan
2 Sheet 5	2 - B	B Section plan
3 Sheet 6	3 - C	C Site plan

☐

Q2. Which sheet number of Drawing WD 9733 identifies the storm water drainage for the proposed structure? Tick your response.

Answer

Choice	Possible Answers
☐	Sheet 4
☐	Sheet 5
☒	Sheet 6

☐

Q3. Identify the Volume and Parts of the NCC that outline the requirements for stormwater drainage for Classes 1 and 10, and Classes 2 to 9.

Answer

Classes 1 and 10	Classes 2 to 9
Volume 3 - PART DPL 2	Volume 3 -

☐

Q4. Which Australian Standard is referenced in the NCC with regards to storm water drainage?

Answer

AS/NZS 3500

☐

Q5. What is the area of the verandah? Tick your response.

Answer

Choice	Possible Answers
☐	76m ²
☒	92m ²
☐	135m ²
☐	211m ²
☐	243m ²

☐

Q6. What is the pitch of the verandah roof?

Answer

☐

Q7. What size are the verandah beams?

Answer

☐

Q8. Which of the following Jamb Studs are to be used for both the upper and lower storeys? Tick all that apply.

Answer

Choice	Possible Answers
☐	90x45
☒	90x70
☐	90x90

☐

Q9. Identify three (3) subcontractors that may work on this construction project.

Answer

☐

Q10. Identify three (3) items of plant and/or equipment that may be used on this construction project.

Answer

☐

Q11. Identify the Volume and Part of the NCC that outlines the requirements for the timber weatherboards identified in Sheet 5.

Answer

☐

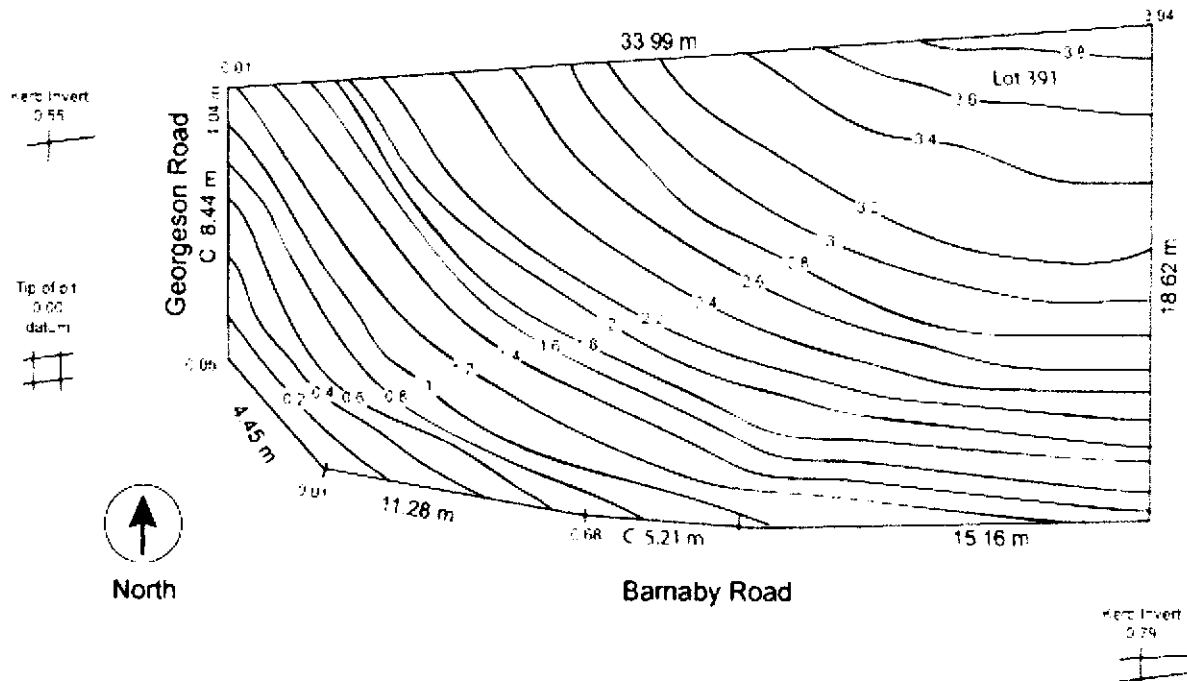
Q12. Which Australian Standard is referenced in the NCC with regards to timber structures?

Answer

AS 1684



Refer to the contour plan below to respond to Q13. to Q15.



Q13. What is the datum reading at the tip of the pit?

Answer

0.00



Q14. What is the level at the kerb invert?

Answer

0.55



Q15. True or False (Tick your response): The lowest point on the site is found at the northernmost point.

Answer

☒	True
☐	False



Q16. True or False (Tick your response): A Gantt Chart may assist with determining the numbers of on-site personnel required and the time requirements for a project.

Answer

☒	True
☐	False

☐

Q17. Identify labour that may be required for non-contract elements of a construction project.

Answer

Office administration staff.

☐

Q18. Explain how the following methods may be used to calculate the costs for on-site work.

Answer

Method	Explanation
Per hour	this can be used for labour on site.
Per unit	Price per item fore.g. doors Price per door to install
Per metre	a set price per square metre ideal when quoting on a floor as set cost.

☐

Q19. Which of the following documents may you refer to when establishing material quantities for a construction project? Tick all that apply.

Answer

Choice	Possible Answers
☒	Plans
☐	Project contract
☒	Specifications
☐	Standard construction contracts

☐

Q20. True or False (Tick your response): The fast way to locate suppliers, such as manufacturers and wholesalers, is to find them online.

Answer

☐	True
☒	False

☐

Q21. Explain how each of the following factors affects supplier selection.

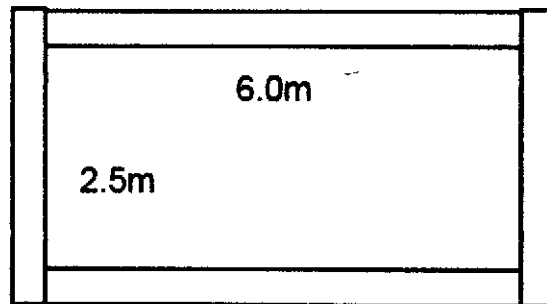
Answer

Factor	Impact
Location	Dealing with distant suppliers might mean longer delivery times and extra freight costs.
Price	Affordability is a key factor, but cheap does not always equate with quality.
Reliability	Suppliers should be able to deliver the right goods and on time.
Stability	Look for experienced suppliers who have been in business a long time. This illustrates financial stability.
Supplier groups	While using a single supplier has its advantages, it also has risks. It might be better to use a carefully selected group of suppliers as insurance against any problem occurring.

☐

Read the following information to respond to Q22. to Q27.

The diagram below shows formwork that is required for a concrete slab.



The table below outlines the costs for this task.

Item	Cost
Timber	\$2.50 per metre
Concrete	\$50.00 per cubic metre (excluding GST)
Labour	\$49.50 per hour

- Q22. Calculate the lineal meters of timber (150mm wide x 25mm thick) required to form up the edge of a concrete slab which is 6.0m x 2.5m x 150mm. Provide no allowance for waste. Show your answer to two decimal places.

Answer

$$Lm = 17 = \text{perimeter } 6+6+2.5+2.5 = 17.$$
☐

- Q23. Use your response to Q22. to calculate how much the timber will cost. Show your workings and answer to two decimal places.

Answer

$$17 \div 1.5 = 11.33 \text{ (metres)}$$

$$(150mm)$$

$$11.33 \times \$250 = \$28.32$$
☐

Q24. Calculate how many cubic metres of concrete are required.
Show your workings and answer to two decimal places.

Answer

$$6m \times 2.5m \times 1.5m = 22.50$$



Q25. Use your response to Q24. to calculate the cost of the required concrete.
Show your answer to two decimal places and ensure it includes GST.

Answer

$$\begin{aligned} 22.50 \times 50 &= \text{Subtotal} = \$1125.00 \\ + 10\% \text{ GST} &= \$112.50 \\ \text{Total} &= \$1237.50 \end{aligned}$$



Q26. Calculate how much the labour will cost if the job takes 6 ½ hours.
Show your workings and answer to two decimal places.

Answer

$$6.5 \times \$49.50 = \$321.75$$



Q27. Use your responses for Q23, Q25, and Q26. to calculate how much this project will cost. Show your workings and answer to two decimal places.

Answer

$$\text{timber} = \$28.32$$

$$\text{Concrete} = \$1125.00$$

$$\text{Labour} = \$321.75$$

$$\text{Subtotal} = \$$$

$$\text{GST} = \$147.51$$

$$\text{Total} = \$1622.58$$



$$\$1475.67$$

Q28. Measure the required quantities for the items listed below.

Answer

Quantity	Item
27	Ceiling light
1	Wall light
0	External light
3	Exhaust fan
2	Smoke detector



Q29. The costs for each of the items are provided in the table below.

Cost	Item
\$49 each	Ceiling light
\$29 each	Exhaust fan
\$82 each	External light
\$39 each	Smoke detector
\$59 each	Wall light

Determine the total costs for each item (using the numbers from Q28.) and the total cost for all items.

Answer

Cost	Item
\$1323.00	Ceiling light
\$59	Wall light
0	External light
\$87	Exhaust fan
\$78	Smoke detector
	TOTAL \$1547.00.



Q30. Name one (1) organisation that provides workers' compensation insurance.

Answer

Workcover Queensland.



Q31. Which of the following environmental costs should be considered when determining project costs? Tick all that apply.

Choice	Possible Answers
☒	Approvals
☒	Environmental protection
☒	Permits
☒	Waste management

Q32. List three (3) statutory costs that should be considered when determining project costs.

Choice	Possible Answers
☒	licences
☒	Registration of vehicles
☒	Training for H&S representatives

Q33. Which two (2) of the following methods are commonly used when determining the profit on a project? Tick all that apply.

Choice	Possible Answers
☐	Double the builder's cost
☒	Lump sum based on market conditions
☒	Percentage on builder's total cost

Q34. True or False (Tick your response): Usually a percentage is added to the estimate to cover company overheads.

Choice	Possible Answers
☒	True
☐	False

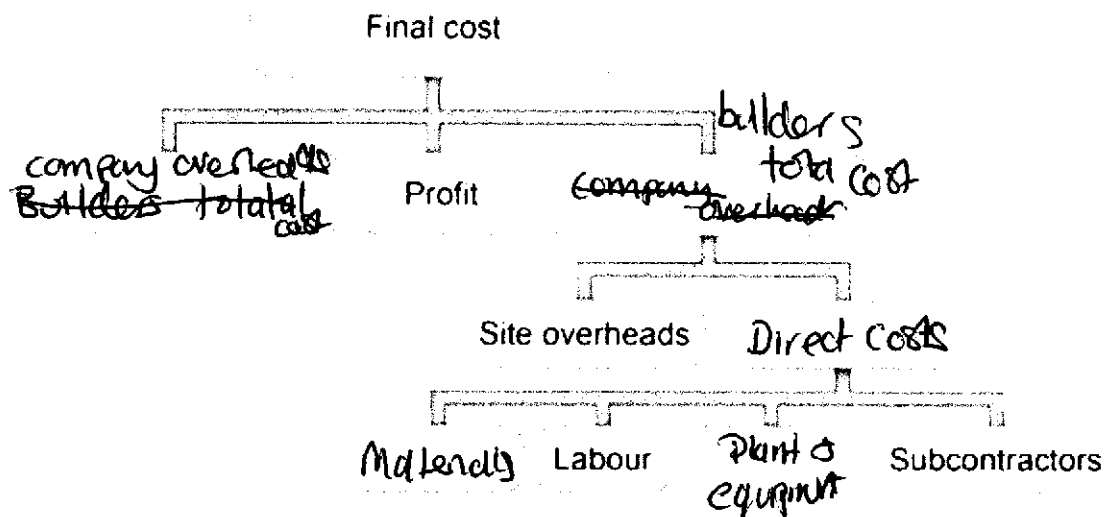
Q35. Identify one (1) example of company overheads for each of the listed categories.

Answer

Factor	Impact
Business premises	As site office leasing of the building
Staff and professional fees	Office receptionist
Transport	repairs & maintenance of motor vehicles.
Finance	insurances



Q36. Fill in the blanks: Complete the following chart to identify what is included in the final cost for a project.



Choose from

~~Builder's total cost~~ | ~~Company overheads~~ | ~~Direct costs~~ | ~~Materials~~ | ~~Plant and equipment~~



Q37. Which of the following should be included in a letter of quotation?
Tick all that apply.

Answer

Choice	Possible Answers
☒	Conditions to your price
☒	Discrepancies
☒	Final cost
☒	Invitation to proceed

☐