

CPCBC6009

DEVELOP, PLAN AND IMPLEMENT A BUILDING AND CONSTRUCTION PLANNING PROCESS

THEORY EXAM

Participant name	
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FOR THE PARTICIPANT
Instructions
ANSWERS - You will complete written questions as outlined on the following pages. You must attempt all questions and provide enough detail in your response to demonstrate your knowledge. - It is anticipated that you should complete this assessment within two (2) hours. But additional time may be allowed upon negotiation with the Assessor. - You must complete all questions unassisted by the Assessor or other personnel but may refer to reference material as needed. All questions must be answered correctly for a 'Satisfactory' assessment to be awarded. - An oral examination may be allowed under certain circumstances, whereby your answers will be documented by another party. - Any written questions that are incomplete, or not answered satisfactorily will need to be completed again after further training support. - If you answer a question incorrectly but modify your response, put your initials next to the written change (or the Assessor must initial a verbal change).
Resources required
Pen

FOR THE ASSESSOR
Instructions
- Where oral examination has occurred, ensure that this is acknowledged in writing (e.g. FT001 and Assessor Comments) - All questions must be satisfactorily demonstrated by the Participant for a Satisfactory determination (indicated by an Assessor tick to the right of the question). - Assessors are to complete marking in pen of a different colour to the Participant. - If the Participant verbally modifies their response, write in the modified response verbatim and put your initials next to the written change.

ASSESSOR COMMENTS

As necessary, outline:

- Details on reattempts, alternative arrangements or reasonable adjustments made.
- Where a Participant is deemed 'Not Satisfactory', provide recommendations for future training.

Q1. **Analyse the following strategic factors and describe the impact each factor will have on the planning process for a residential construction project.**

Answer

Factor	Impact on residential construction project
Client needs	e.g. Needed to define the project parameters and to determine resources and what is required to meet compliance requirements. Long term, client satisfaction affects business financial situation and reputation
Site Location	e.g. Local and State planning and associated requirements, such as fire prone areas, protected species may all require additional considerations during planning and construction. Topography will affect the cost of the build if steep slopes or accessibility challenges are present. Orientation and shape of the build may need to be considered to take in the best aspects of the site.
Economics and the market	e.g. High demand for housing drives the construction industry's growth, whereas increasing costs of labour and materials can be a key driver for demand and therefore adjust values. Shortages in labour and equipment will cause delays and increased costs of materials and transport must be considered to achieve a profitable result.
Codes, Standards and Regulations	e.g. All construction work must comply with: The National Construction Code (NCC) which sets the minimum requirements for the design and construction of new buildings. State WHS and Environmental Legislation. This will include meeting certain Australian Standards related to materials and construction as well as State requirements in relation to licencing and permits



Q2. Describe how logistics and the location of personnel affects the planning of a building and construction project.

Answer

Should reflect knowledge of the cost in budgetary as well as time factors.



As an example: material and equipment must be delivered on time and in good condition. Logistics has an impact on profitability. A delay in one component of the job, due to traffic delays causing late arrivals of personnel and/or materials might have far-reaching consequences for the job's completion as the following crews — electricians, plumbers, drywall installers, and other professions – may then be delayed as a consequence..

Q3. Describe what is meant by quantifying the range and scope of activities to be undertaken for a construction project.

Answer

Should reflect but is not limited to: This means determining all activities to be achieved, the resources, both material and human resources needed to complete these activities, time and cost of achieving these activities. Activities may include surveying, marking out, excavation, concreting, brickwork or masonry, carpentry, steel fixing, plumbing, draining, electrical, roofing glazing and finishing. When considering finances required, judgment must be made considering market costs,



Q4. What does construction financial management involve?

Answer ☐ Should reflect but is not limited to: Construction financial management involves allocating and accounting for financial resources to cut project costs, maximise profits and assure long-term company financial health.

Q5. Discuss what is meant by tracking and reviewing business progress using balanced scorecards?

Answer ☐ Should reflect but is not limited to: balance the strategic goals and overall vision of the business by identifying, measuring, and managing four main business perspectives of customer, finances, internal business processes, and business learning and growth. Start with a SWOT analysis to determine weaknesses and strengths, opportunities and threats. Design a balanced scorecard showing the objectives, measures, targets and initiatives to be achieved. Review and update quarterly and use these initiatives to communicate team responsibilities via KPIs.

Q6. Clarify the primary resources that must be considered when developing an operational plan.

Answer ☐ Should discuss determining resources needed throughout the project and include mention of human resources, materials and budget.

Q7. Explain in your words the role of human resources in the construction industry.

Answer

Should reflect but is not limited to: The process of managing people within an organisation is known as human resource management (HRM). HRM in construction is largely concerned with ensuring that a project has enough human resources, with the appropriate skill sets and experience, to finish it successfully. To establish a project's human resource requirements, HR managers must be able to define and document project roles and responsibilities and develop a plan defining the end-to-end processes required on the project



Q8. Explain why it is important to select and apply effective lines and methods of communication to all levels of the organisation.

Answer

Should reflect an understanding of appropriate communication channels for different staff levels of the organisation. Example: Effective lines and methods of communication - The ability to convey information to others effectively and efficiently is defined as effective communication. Business managers with strong verbal, nonverbal, and written communication skills make it easier for people within a company to share information. Leaders must communicate effectively with all levels in the organisation, using approved methods of communication. When working with management to gain approvals and clarify progress, routine progress reporting is usually necessary. Communication with workers and contractors may occur using memo boards, emails or text, depending on organisational requirements.



Q9. Describe how you can ensure you engage appropriately experienced and qualified workers to complete construction tasks, from internal and external sources.

Answer

Should reflect: review task requirements to ascertain task skills needed.



Determine licensing and qualification requirements applicable to the skills.

Precisely advertise the experience, qualifications required by applicants.

Interview only applicants who can provide evidence of the experience, skills

and qualifications required in the advertisement. If workers are from a

currently employed back of workers, select those whose HR files show the

licences, qualifications and experience needed for each task. Ensure the

selected workers are available in the timeline required.

Q10. Explain how you maintain compliance with industrial relations when engaging workers and project team members.

Answer

Should reflect but is not limited to reference to National employment



standards, including fair work statement, meeting award or enterprise

agreements, adherence to termination and redundancy processes and

applicable union memberships for workers.

Q11. Describe in-depth quality control processes that must be applied to construction planning. Include in your response documentation, performance benchmarks, feedback and evaluation and information management.

Answer

Should provide sufficient information related to quality control processes including but not limited to information such as: graphical representation of data such as the use of Gantt charts. A benchmark is a predetermined norm or point of comparison against which other things, such as people, costs, time, or compliance, can be measured. It is seen as an attainable standard, and failure to meet it may result in the job being deemed unsatisfactory. Feedback is vital to compliance success, feedback is gathered at benchmarks such as milestones and can be collected from workers, particularly when related to machinery or equipment processes and personnel. Data and information should be evaluated against benchmarks to determine if a project is progressing as required or whether contingencies must be implemented. The management of information is critical to the proper operation of building projects. It is the process of gathering, storing, disseminating, archiving, and removing or eliminating data. Effective information management ensures that the right people have access to the correct data at the right time, allowing them to make the best decisions possible.



Q12. Describe what a project review meeting is.

Answer

Should reflect but is not limited to: This meeting requires the project management team to meet to discuss the monitoring of the progress of the project, it may include discussion on modification to the project, or to individual or team performance. This meeting is also held to evaluate and closes-out the project.



Q13. The construction project must comply with the National Construction Code (NCC). What does this mean?

Answer

Should reflect but is not limited to: Materials, form of construction or design must meet the Performance Requirements or Deemed-to-Satisfy (DtS) Provisions set by the NCC. Assessment Methods, which are located within the General Requirements of the NCC are used to determine whether a solution complies with the relevant NCC Performance Requirements.

This means that evidence of suitability must be provided for each material and form of construction, this may be that the work adheres to specific Australian Standards specified in the NCC, may also be verified using testing and inspection, methods may be compared against the DtS provisions to demonstrate equal or superior outcomes or expert judgement may be accepted regarding procedures or material from a relevantly qualified and experienced person such as a technical expert.



Q14. What can occur if a builder fails to adhere to environmental and waste management legislation?

Answer

Should reflect participant knowledge of environmental protection laws.

Failure can incur a report from a bystander or other which will instigate an inspection from the relevant State/Territory department. Inspections can reveal issues and allow the department to address those issues before they become larger problems this may require an environmental audit or investigation of the site. Results of investigations may incur:

An environmental protection order; Clean up notices or other notices.



Q15. Clarify the state or territory building and construction codes, standards and regulations relevant to your place of work.

Answer

Should reflect but is not limited to current building laws and regulations including Building Act 1975 – Queensland's building legislation and Building Regulation 2021 – building regulations related to the Queensland Building Act 1975, the Queensland Building Code and its relationship to the National Construction Code (NCC). May also include information relating to specific performance requirement P1 of the Queensland Development Code 4.1— Sustainable buildings for the energy efficiency of the building shell in all climate zones. May also include building development approval (or building permit) from local government or building certifier

☐

Q16. Consider the current economic situation and explain how this can impact the building and construction industry.

Answer

Should reflect but is not limited to: Current interest rates can affect the construction industry by influencing the cost of borrowing money for construction projects, leading to fewer projects being built. Economic slumps can influence the reduction of building projects while economic growth will generally increase the number of projects. Inflation affects the cost of materials and labour causing the cost of building projects to rise. Inflation also contributes to the transport costs and availability of materials for construction projects

☐

Q17. Explain how to determine the organisational market focus.

Answer

Should reflect but is not limited to: Review customer base and area of specialisation to determine the target audience that aligns with specialist areas of expertise.

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Q18. Clarify the type of data you can access to forecast and identify risks and crisis situations and monitor effectiveness of risk control procedures. Explain your answers.

Answer

Should reflect but is not limited to: Risk register – which records the organisation's identified risks, the likelihood and consequences of a risk occurring, the actions to be taken to reduce those risks and who is responsible for managing them. Crisis response and contingency plan to determine historical procedures and policies relevant to crisis management. The critical information list - a detailed file of the business's essential information including important details that anyone acting on your behalf might need to know. For example, information about tax and finance, bank accounts and credit cards, insurance, bills and loan repayments. Corrective Action and Preventative Action reports – which record the issue or non-conformance that prompted the need for corrective or preventative action



Q19. Describe the benefits of feedback loops.

Answer

Should reflect but is not limited to: A feedback loop in a construction project is an ongoing conversation in which input and views shape future adjustments and improvements. This results in a loop. The goal is to incorporate feedback regularly to create continuous improvement. Feedback loops are effective tools for bringing issues to light and moving initiatives forward. A feedback loop is a system component that uses some (or all) of the system's output as input for subsequent processes. Negative or positive feedback loops are possible.



Q20. Elaborate on the significance of maintenance and redevelopment of information recording systems.

Answer

Should reflect but is not limited to: Throughout construction projects, appropriate records should be generated and maintained. This produces a real-time record of what happened when and where during the project, which may be referred to if necessary. This creates a 'memory' or 'paper trail' for the project, which may be used to assess actions and decisions, but it also allows for analysis of events and timeframes in the event of a disagreement. Disputes are frequently decided by the records available rather than the facts, therefore keeping solid records is crucial for the parties involved. There are several reasons to retain records including to control work, to provide data for future work, legal requirements, contractual requirements. Some record-keeping responsibilities, such as documenting meeting minutes, may be carried out at the discretion of the particular organisation. Other documents may be required by law or contract and must adhere to strict guidelines.



Q21. What do you understand by performance data entry and responsibility?

Answer

Should reflect but is not limited to: Accurate and timely information, as well as the capacity to use this information effectively, are critical for both project design and control. The following is a list of the most important data sets: Project correspondence and memorandum files kept in chronological order. Records of quality control and assurance; Cash flow and procurement accounts; Drawings and specifications with design documents; Timetables and cost estimations; Inspection logs and construction field activity; Contracts and regulatory documents



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DEVELOP, PLAN AND IMPLEMENT A BUILDING AND CONSTRUCTION PLANNING PROCESS

WORKBOOK

Participant name	
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FOR THE PARTICIPANT

Instructions

- You will complete written activities as outlined on the following pages. You must attempt all questions and provide enough detail in your responses to demonstrate your knowledge.
- The timeframe for these tasks will be established by your Assessor or Training Provider. Additional time may be allowed upon negotiation with the Assessor.
- You must complete all questions unsupervised by the Assessor or other personnel but may refer to reference material as needed. All questions must be answered correctly for a 'Satisfactory' assessment outcome to be awarded.
- An oral examination may be allowed under certain circumstances, whereby your answers will be documented by another party.
- Any written questions that are incomplete, or not answered satisfactorily will need to be completed again after further training support.
- If you answer a question incorrectly but modify your response, put your initials next to the written change (or the Assessor must initial a verbal change).

Resources required

Pen

FOR THE ASSESSOR

Instructions

- Where oral examination has occurred, ensure that this is acknowledged in writing (e.g. FT001 and Assessor Comments)
- All questions must be satisfactorily demonstrated by the Participant for a Satisfactory determination (indicated by an Assessor tick to the right of the question).
- Assessors are to complete marking in pen of a different colour to the Participant.
- If the Participant verbally modifies their response, write in the modified response verbatim and put your initials next to the written change.

ASSESSOR COMMENTS

As necessary, outline:

- Details on reattempts, alternative arrangements or reasonable adjustments made.
- Where a Participant is deemed 'Not Satisfactory', provide recommendations for future training.

NOTE

At times, you will be provided with a specific business context to which you must respond, otherwise it is anticipated that you will use a workplace of your choosing (your own, or hypothetical) to provide the context to the task.

At all times, the responses in your assessment must reference **Australian** (Queensland or Federal) documentation, including legislation, regulations, codes of practice, standards and guidance publications.

ACTIVITY 1

Create a project plan template:

- using Excel or another spreadsheet application showing the different phases of the project, relevant tasks, task owners, task start and end dates and status
- to be forwarded to senior management with initiation documents for approval and endorsement
- attach a copy of the spreadsheet for the assessor

Note: A Gantt timeline is not required for this activity

**Satisfactory
Outcome**

Created template must be submitted to assessor



ACTIVITY 2

Complete a communications plan for your building/construction project or a hypothetical project using the template provided within Handout 2. Modify and/or adapt the template to suit your actual or hypothetical project.

**Satisfactory
Outcome**

Completed communications plan must be submitted to assessor



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DEVELOP, PLAN AND IMPLEMENT A BUILDING AND CONSTRUCTION PLANNING PROCESS

PRACTICAL ASSESSMENT

Participant name	
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FOR THE PARTICIPANT

Instructions

- The tasks outlined on the following pages will require performance of normal workplace activities, as a result of a structured activity set by an observer in the workplace or a simulated activity set by your Assessor/Observer.
- The timeframe for these tasks will be established by your Assessor/Observer in consideration of location conditions and industry requirements.
- You must complete all tasks assisted by the Assessor or other personnel, unless the supervisor notes this assistance.
- You must attempt all tasks (and itemised steps) for a 'Satisfactory' assessment outcome to be achieved.
 - For an observation conducted that is incomplete, or without satisfactory performance, the observation will need to be completed again after further training support.

FOR THE ASSESSOR/OBSERVER

Instructions

- The following observation record should be used to judge and record your observations of the Participant as they complete the task(s) set. You must record your observations of the Participant's performance.
 - For each occasion, indicate the task performed and whether it was a simulation or workplace-based task.
 - Any simulated assessment must ensure the Participant still performs under workplace conditions which reflect industry standards.
 - In the comments, provide clear detail regarding the task that the Participant was required to do (e.g. PPE used, materials handled, attachments connected, plant types).
- All steps must be satisfactorily demonstrated by the Participant for a 'Satisfactory' determination (indicated by an Assessor tick to the right of each itemised step, or an Observer tick to the right of each itemised step, and confirmation by an Assessor in the Assessor Comments).
 - Where you have determined that one or more task steps have not been satisfactorily demonstrated, provide the Participant with additional support and outline details of such assistance in the Assessor/Observer Comments. Allow the Participant two (2) further opportunities to demonstrate the task again to allow an opportunity for a 'Satisfactory' assessment outcome to be achieved.
 - If after three (3) attempts the Assessor determines that the Participant cannot demonstrate the required steps, a 'Not Satisfactory' outcome is to be determined.

TASK OUTCOME					
Task	Date	Task Type (Tick)	Location	Task outcome (Tick)	
				Satisfactory	Not Satisfactory
Task 1		☐ Workplace ☐ Simulation		☐	☐

ASSESSOR COMMENTS: GENERAL

As necessary, outline:

- Details on reattempts, alternative arrangements or reasonable adjustments made.
- Where a Participant is deemed 'Not Satisfactory', provide recommendations for future training.

ASSESSOR COMMENTS: PRACTICAL TASK 1

- ☐ Individual student (as named on cover page)
- ☐ Multiple students [☐ All from Attendance Report, ☐ Specific students involved – identify students]

Task	Provide detail
1.1B.	Specify project planning is being developed for: Residential housing development
1.1B. 1.1C. 1.1D. 1.2A.	Specify documents and systems reviewed, developed and applied to planning system: e.g. scope statement, Resource requirements, Staffing management plan
1.2B.	Specify method applied to establish criteria for personnel, processes and milestones: e.g. Bill of quantities developed, Gantt chart developed
1.2C.	Specify how milestone and reporting requirements were determined: According to NCC and local council requirements
1.2D.	Specify how meeting was organised with senior management to obtain endorsement for implementation of developed system: e.g. verbally agreed time was determined
1.2E.	Specify how senior project staff were selected and appointed: e.g. Provided HR staff with requirements and conducted final interview for candidates
1.3C. 1.3D. 1.4B.	Specify (✓) how tasks were delegated and monitoring communicated with all levels: ☐ Face to face ☐ Telephone ☐ Email ☐ Memo board ☐ Pre-start meetings ☐ Procedures ☐ Reports ☐ Other (please specify):
1.5B.	Specify strategic balances and checks, applied to maintain the quality of the planning system: e.g. milestones, checklists