

## RIICWM401D SUPERVISE CIVIL WORKS

### 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 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 \_\_\_\_\_

Participant signature \_\_\_\_\_

Assessor name \_\_\_\_\_

Assessor signature \_\_\_\_\_

Date \_\_\_\_\_

| Number of questions | Number of questions answered correctly | Satisfactory? |    |
|---------------------|----------------------------------------|---------------|----|
| 50                  |                                        | Yes           | No |
|                     |                                        |               |    |



1. List 2 types of compliance documentation that may be used on a civil construction site.

Legislative requirements.  
Organisational policies and procedures.  
Site specific policies and procedures.  
Australian guidelines and specifications.  
Australian standards.  
Manufacturer's guidelines and specifications.

2. What does the term 'should' refer to when interpreting compliance documentation such as manufacturer's requirements?

Should indicates a preferred course of action.

3. What are statutory compliance requirements and procedures?

They are the minimum level of performance, responsibilities and duties that are set by local, state and federal government.

4. What factors will determine the administrative requirements, procedures and tasks you are to complete?

The level of your duties and your site responsibilities.

5. Who should you speak to in regards to employment procedures, policies and requirements?

Human resources department.

6. Why should interpretation of project contract requirements and procedures be straightforward?

As you are required to follow all requirements and procedures.

7. What document will detail the level of contract management you require?

Your duty statements.

8. List 5 areas of specific task information and requirements that must be applied.

Geological and geotechnical data.

Hydrological data.

Meteorological data.

Engineering survey data.

Material properties.

Road geometry.

Asphalt types.

Site hazards, constraints and conditions.

Cultural and heritage information.

Civil construction sequencing.

Quantity calculation.

Contractors and other organisations.

Estimation principles.

Task specifications.

Coordination, timing and budgeting.

**9. Why is it important to apply site geological and geotechnical data such as rock and soil types?**

It allows you to determine the correct machinery, resources and work methods to achieve the required tasks.

**10. How is hydrological data used on the site?**

To ensure correct drainage of the site, for protection of the waterways and water dwelling flora and fauna

**11. Why is meteorological data important to a worksite?**

Having a good understanding of this data allows you to plan your daily activities more successfully.

**12. How can engineering survey data be used on the worksite?**

It can be used for setting out works, monitoring progress, and for conforming completed components.

**13. Why is it important to interpret material properties and test results?**

To ensure the correct materials are being used in the correct manner for the required results.

**14. List the formulas for the following 4 common calculations that you may use on your worksite:**

Answer may include:

- a)  $\text{Area} = \text{Length} \times \text{Width}$
- b)  $\text{Volume} = \text{Length} \times \text{Width} \times \text{Depth}$
- c)  $\text{Percentage} = (\text{Known Figure} \times \text{Percentage Amount}) \div 100$
- d)  $\text{Grade} = \text{rise} \div \text{run}$

**15. Why is it important to understand the roles of other groups on the worksite and where other teams are up to?**

To ensure good working relationships, as each team relies on others to be able to achieve their tasks.

**16. How can project or task specifications be conveyed?**

They can be conveyed in site or task drawings, plans and document.

**17. Where will you be able to locate your client's requirements for the project?**

In the project or task specifications (located in the job plan).

**18. List 3 areas your task requirements in the job plan will detail.**

Monitoring requirements.

Personnel/Workers performance requirements.

Resources and material requirements, including plant and equipment.

Operational techniques that are required to complete the tasks correctly to the required standards.

**19. How will the conduction of risk assessments be determined?**

By the organisational policies and procedures.

**20. Why is it important that you as a supervisor know the OHS/WHS requirements for the tasks your team members are undertaking?**

To ensure you are able to inform the team as to what is required of them.

**21. Are environmental management requirements the same on every site?**

No. Each site will have slightly different requirements and it is essential you identify and apply these in accordance with the needs of the site.

**22. What areas are covered in traffic management plans?**

Traffic management plans account for signage requirements, site access or isolation needs and activities being undertaken.

**23. Who should you speak with if you are unsure of the quality management requirements?**

Quality assurance manager or site QA officer.

**24. What areas must be considered to determine the task resource requirements?**

Personnel/Workers requirements; plant, machinery and equipment requirements; and coordination requirements.

**25. What is the most common method of material delivery on a civil construction site?**

Just-in-time delivery.

**26. What is a job plan and why should it be a 'living document'?**

A plan used in order to complete the tasks assigned to your team. They should be 'living' as they need to have the flexibility to change if required.

**27. List 3 people that you may need to consult with when creating job plans?**

Other managers, supervisor or leading hands.

Suppliers.

Sub-contractors.

Team members doing the tasks and activities.

Supervisors or managers of external teams you need to coordinate with.

**28. List 4 common resources you may need to acquire and allocate to conduct tasks.**

Personnel/Workers.

Plant.

Equipment.

Tools.

Vehicles.

Sub-contractors.

Construction materials.

**29. Why will you need to know the capabilities and limitations of plant and equipment when allocating resources?**

So that you are allocating the most appropriate equipment for the safe, effective and efficient conduct of the tasks.

**30. What is procurement and who will normally handle it onsite?**

The process of buying or sourcing materials and labour that meets the needs of the project. The procurement officer will normally work with the contracts manager.

**31. List 3 items that you may need to prepare prior to conducting meetings.**

Answer may include:

Short messages.

Job reports.

Log books.

Diaries.

Briefing notes.

**32. What factors do you need to consider when preparing for short messages?**

The organisational requirements, personal management style and comfort levels presenting information.

**33. Why should log books and diaries be maintained at all times?**

In order to keep track of when tasks have been completed and any issues that have been dealt with.

**34. Why is it important that you issue clear and timely instructions to team members and other personnel/workers?**

To ensure that all personnel/workers know what they are required to do, when they need to do it and how they need to do it.

**35. List 4 tasks that may need to be set out.**

Establishing control lines.  
Establishing the cleared width.  
Determining batters.  
Establishing offsets.

**36. What factors will determine the set out procedures and requirements?**

Site factors and the specifications you are working under.

**37. When establishing offsets, what do positive and negative numbers mean?**

Positive number means the offset is to the right of the line. Negative number means the offset is to the left of the line.

**38. Prior to using levelling devices what must you ensure?**

Ensure the equipment is calibrated correctly and positioned according to manufacturer's specifications.

**39. List 3 areas of civil works that you may need to monitor.**

Answer may include:

Risk assessments.  
Engineering survey monitoring.  
Sampling and testing.  
Construction practices.  
General supervision.

**40. List 3 monitoring methods that you may use when monitoring civil works tasks.**

Answer may include:

Observation of the tasks and activities.  
Monitoring completion times.  
Task inspection and reporting.  
Individual assessment.  
Interpretation of test results.

**41. When monitoring tasks, how might inspections be recorded and reported?**

Through checklists, inspection logs or registers and site-specific requirements.

**42. List 5 areas you are looking at when conducting task and individual assessments.**

Effectiveness.  
Safety.  
Aptitude.  
Abilities.

Efficiency.  
Attitude.  
Training.  
Competencies.

**43. Why is it essential that you provide leadership to the team and develop the abilities of each team member?**

To ensure they are able to perform within the team to the best of their abilities.

**44. Why is the development of workplace relationships essential on the worksite?**

It is essential to building teams that are effective and efficient and able to function well in all situations.

**45. What personal skills do you require as an effective supervisor, team leader and mentor?**

Patience.  
Understanding.  
Ability to communicate clearly and concisely.  
Listening skills.  
Empathy.  
Compassion.  
Effectiveness and efficiency.  
Time management.  
Decision making.

**46. Why are spontaneous adjustments normally made?**

In response to changing site conditions or safety concerns.

**47. Why is it important that you schedule regular maintenance of plant, equipment and tools?**

Good maintenance of plant, equipment and machinery will ensure minimal downtime, less breakdowns and therefore greater long term efficiencies, safety and productivity.

**48. List 3 types of reports that you may be required to complete and submit.**

Productivity reports.  
Material used reports.  
Machinery maintenance reports.  
Quality assurance reports.  
Safety reports.  
Environmental reports.

**49. What can be the downfall of using pre-populated forms when reporting and how can you address this?**

They can lead to important information being left out of the report. Add an addendum or appendix to the pre-populated report or create a written report that deals with the issue directly.

**50. Why might you need to recommend changes to work processes, procedures and tasks?**

In order to improve the safety, efficiency and effectiveness of the civil works programs and tasks you are trying to achieve.