

Hand spread asphalt Learner Workbook



STUDENT COPY

RIICBS202E –
Hand spread asphalt



This resource was developed by:



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Student Number: _____ Date: _____

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SAMPLE



Question 1

PC 1.1

What does the term "hand spread asphalt" refer to in civil construction?

It involves:

- a. The automated application of asphalt mixtures using specialized machinery.
- b. The manual application of asphalt mixtures by workers.
- c. The use of asphalt in gardening and landscaping.
- d. The production of asphalt mixtures in a factory setting.



Question 2

PC 1.1

What are some of the key tasks associated with the role of hand spreading asphalt in civil construction?

- a. Planting trees and shrubs in the work area.
- b. Managing office paperwork and documentation.
- c. Distributing asphalt evenly with hand tools and ensuring proper compaction.
- d. Supervising the installation of electrical wiring on the construction site.



Question 3

PC 1.1

When hand spreading asphalt in civil construction, the following tasks are typically performed by a worker?

Choose all the correct tasks of a hand spread asphalt worker would do.

- a. Material handling
- b. Pouring and spreading
- c. Leveling and smoothing
- d. Edge work
- e. Heat management
- f. Working with the paver operator



Question 15

What is the recommended technique for hand spreading asphalt with a shovel for achieving an even surface?

When hand spreading asphalt with a shovel, what is the recommended technique for achieving an even surface and preventing hot asphalt spillage?

- a. Spreading directly toward your body for better visibility.
- b. Moving the shovel in a zigzag pattern for maximum coverage.
- c. Overlapping each pass slightly and adding more asphalt to low spots.
- d. Using a raking motion and keeping the blade parallel to the ground.

PC 1.1



Question 16

What specific tasks are involved in working with a paver to lay joints?

Answer the following questions:

i). What is the primary goal of working with a paver to create longitudinal and transverse joints in pavement construction?

- a. To design complex road patterns
- b. To achieve precise connections between pavement sections
- c. To operate heavy machinery effectively
- d. To inspect the quality of existing roads



ii). Which of the following is a role typically performed by equipment operators when working with a paver in pavement construction?

- a. Concrete mixing and pouring
- b. Manual shoveling of materials
- c. Controlling the paver's alignment and speed
- d. Administrative documentation



iii). Why are properly created longitudinal and transverse joints essential in road construction?

- a. They add aesthetic value to the road.
- b. They help control cracking and expansion due to temperature changes.
- c. They reduce the cost of construction.
- d. They have no significant impact on road quality.



Question 17

In civil construction, what is a specific task that a manual asphalt spreader might undertake when working alongside an asphalt paver?

Is it:

- a. Asphalt Mix Inspection
- b. Walking on the hot asphalt
- c. Excavation Planning

PC 1.1



Question 18

When collaborating with an asphalt paver in civil construction, what tasks might a hand spread asphalt person perform to ensure the even distribution, proper compaction, and smoothness of the pavement?

- a. Safety
- b. Excavation Planning
- c. Repairs

PC 1.1



Question 19

What are some communication techniques that can be used to stay in contact with the paver operator?

In civil construction, what communication techniques can be employed to maintain contact with the paver operator when hand spreading asphalt?

- a. Written notes and hand signals
- b. Megaphones and shouting
- c. Hand signals, two-way radios, and eye contact
- d. Semaphore flags and walkie-talkies

PC 1.1



Question 20

What hand signal is typically used to instruct the paver operator to lower the screed or take it closer to the surface for paving.

During asphalt hand spreading in civil construction, which hand signal is typically used to instruct the paver operator to lower the screed or take it closer to the surface for paving?

- a. Thumbs Down
- b. Hand Waving Upward
- c. Circular Motion
- d. Hand Waving Downward

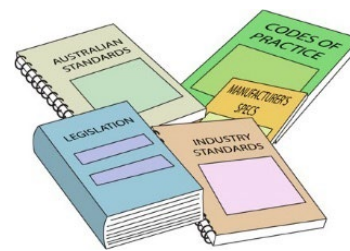
PC 1.1



Question 26 ii)

What is the key legislation for hand spreading asphalt?

PC 1.2



Question 27

What kinds of information do you need before starting work?.

PC 1.1, 1.2



Question 28

When planning your job, why do you need to know what other people are doing on site?

PC 1.1, 1.2

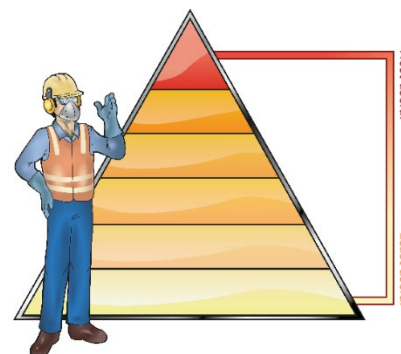


Question 29

The hierarchy of hazard control is a list of controls you can use to lower the danger from a hazard on the worksite.

What are the six (6) levels in the hierarchy of hazard control from the first choice to the last choice?

PC 1.3



Question 43

PC 1.5

What is the aim of a traffic control plan?



Question 44

PC 1.5

What does the traffic management plan (TMP) tell you?



Question 45

PC 1.5

Where do you put up warning signs, state at least THREE?



Question 46

PC 1.5

What signs may be used in a traffic control plan, state at least THREE?



Question 47

PC 1.5

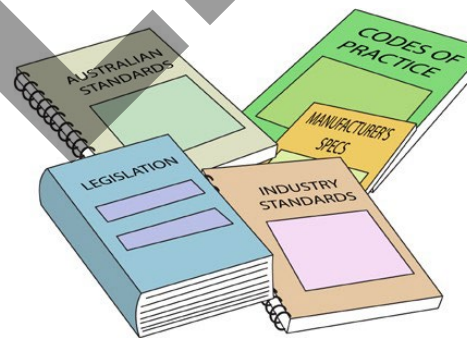
What equipment may be used in a traffic control plan, state at least THREE?



Question 48

PC 1.5

How do we confirm and complying with safety and traffic management, state at least THREE?



Question 49

PC 1.6

What plant, tools and equipment are used when hand spreading asphalt. Outline the equipment types along with their characteristics and limitations, state THREE characteristics and limitations for Shovels and Rakes?

Equipment	Characteristics	Limitations
Shovels and Rakes		



Question 50

What tools might you use when hand spreading asphalt, state at least THREE?

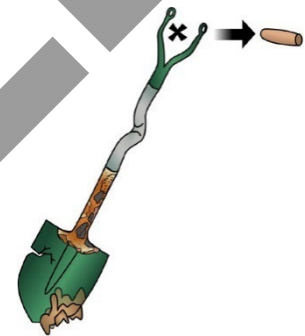
PC 1.6



Question 51

What faults on tools and equipment should you check for, state at least THREE?

PC 1.6



Question 52

If you find any defective equipment during your work tasks, you must:

PC 1.6



Practical Assessment

The skills and knowledge required to **hand spread asphalt in civil construction**, work must be performed on at least different two occasions and carrying out the actual practical task may be filmed and noted of where the video file is stored.

Practical Assessment 1



You are to be provide with a work order that covers all of the following aspects of hand spread asphalt.

Summary details about what must be covered in hand spreading asphalt for work order:

You must demonstrate the ability to;

- hand spread asphalt on at least two different occasions, including:
- hand spreading at least 5m² of asphalt (per patch) to line and level without segregation, including:
 - ~ two patches over 50mm thick, each with a different type of asphalt
 - ~ two patches under 50mm thick, each with a different type of asphalt.
- work with a paver to lay at least 100 lineal metres of longitudinal joint and two transverse joints, according to the work order.

Note: See unit learning guide for sample work order or see your trainer / assessor for work order.

When carrying out the work in the work order you must perform the following tasks.

Task 1. You are to locate or source a work order. i.e. Use the sample work order found in the Learner Guide or one will be provided to you from your Trainer / Assessor. When you complete your practical assessment submit the work order document. (**sample work order.docx**)

Task 2. You are to review the work order task instructions and consult with the supervisor or assessor to **confirm** the **work** that needs to be performed and note down or write notes in the Work order confirmation checklist list of what needs to be done. Submit **Work order Confirmation checklist document (.docx)** to your Trainer / Assessor. (PC 1.1, 1.2)

Task 3. You are to assess and address risks by creating/perform an job safety analyses (JSA).docx, safe work method statements (SWM).docx for the work site according to the work order. (PC 1.3)

Task 4. You are to assess and address **environmental** issues and potential hazards and create a JSEA (.docx) document (PC 1.3)

Task 5. Source and gather all the PPE equipment to complete the work order. (PC 1.4)

Practical Assessment 2



During the operation of hand spreading asphalt according to work order details, you must perform the following tasks;

Task 6. Put on, wear **PPE** equipment and perform job task work order according to details.

Task 7. Beforehand spreading asphalt / or working with paver on site you are to setup an exclusion zone and fill in an exclusion zone check list document (.docx).

Task 8. Beforehand spreading asphalt / or working with paver on site, select and check all the plant, **tools** and **equipment** required to perform work order details are in working condition. if any faults report accordingly.

Task 9. Obtain and review **emergency** procedures that must be followed when hand spreading asphalt. See Learn Guide for sample easy guides policy and procedures or provide one and save as **emergency policy and procedures.docx**. You should also review the Hand Asphalt Spreading Quality Checklist to ensure when working that the work is at an adequate level of quality and to a compliant standard.

Task 10. Conduct hand asphalt spreading in safe proximity to the paver.

Task 11. **Hand place asphalt** to **required level** and **line** according to job requirements

Task 12. Assist with creating longitudinal and transverse joints using different methods like hot to hot joint and cold to hot joint.

Task 13. Identify and repair any defects that can be found while working with paver and according to work order before and during operation of asphalt layering, defects such as the following; bumps, segregation, blemishes, bony materials and voids.

Task 14. During and after performing work as outlined in work order you are to complete a Hand Asphalt Spreading Quality Checklist which will check for the quality of work performed.

Practical Assessment 3



After you have completed the work order job details, you must perform the following tasks;

Task 15. Clear work area (perform housekeeping) and dispose of and recycle materials as required according to workplace procedures and environmental requirements for hand spread asphalt in civil construction. (PC 3.1, 3.3)

Task 16. Clean, check, perform maintenance on in scope of own role, and store tools and equipment (PC 3.2)

Task 17 Complete an Clearing and Disposing of Materials in a Construction Area checksit.docx as part of house keeping.