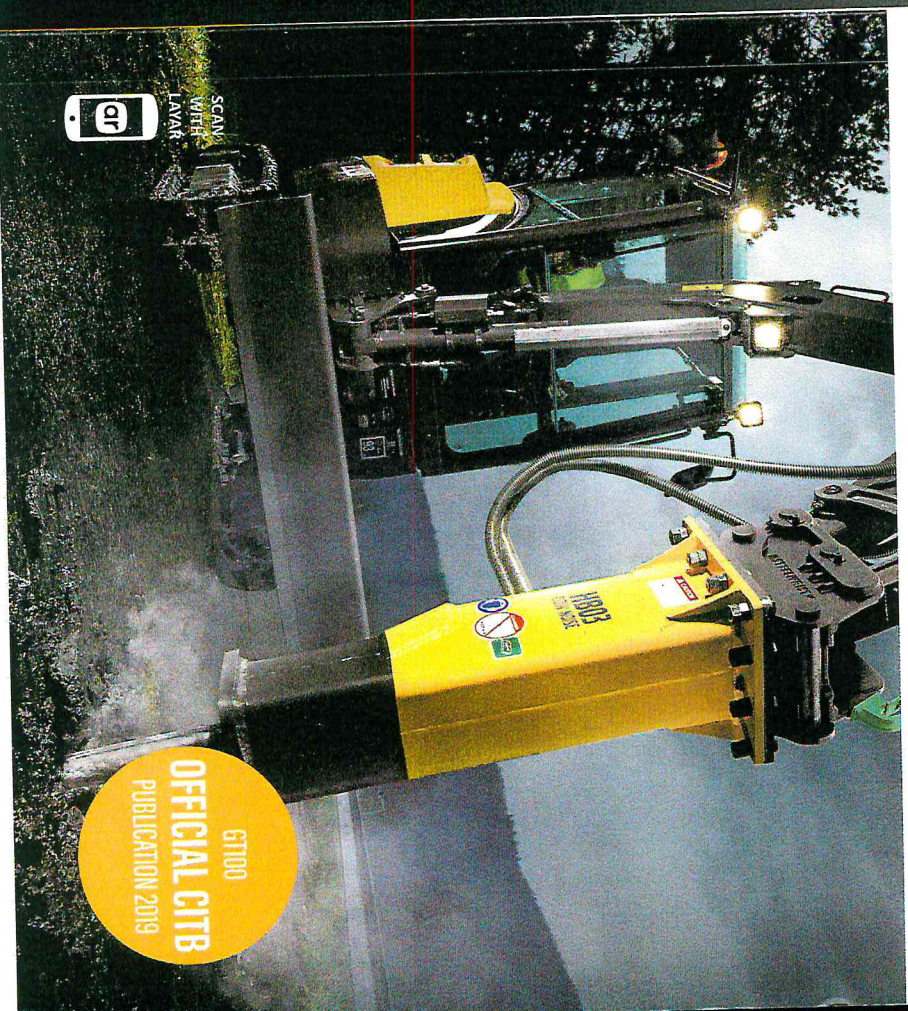


**H&SE TEST**

# Health, safety and environment test For operatives and specialists



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## 01 General responsibilities

- The Health and Safety at Work etc. Act 1974 contains legal duties for employers and employees.
- Visitors and workers must be given a site induction and authorised to enter site.
- Employers must provide information to workers about site rules, welfare facilities and emergency procedures.
- Workers should be provided with clean welfare facilities and information regarding hazards and risks at work.
- Everyone on site is responsible for the consideration of neighbours and members of the public.
- Employees should follow a safe system of work agreed with the employer.
- A safe system of work would include information such as the sequence of work, and any hazards associated with the task.
- The purpose of a risk assessment is to identify hazards and control risk.
- Risk assessments consider the likelihood of a hazard occurring and the seriousness of harm that could occur.
- A method statement will inform a worker of the safe way to carry out a task.
- If a task feels dangerous or unsafe, stop work and report it immediately.

1.01 The whole site has been issued with a prohibition notice. What does this mean?

- ☐ A Continue with site work
- ☐ B Finish the job and go home
- ☐ C Do not use any power tools
- ☐ D Stop work because the site is unsafe

1.02 After watching you work, a Health and Safety Executive (HSE) inspector issues an improvement notice. What does this mean?

- ☐ A You are not working fast enough
- ☐ B You are not working in a safe way
- ☐ C Your work has improved since the last visit
- ☐ D You need to improve the standard of your work

1.03 You have witnessed a serious accident on your site and are to be interviewed by a Health and Safety Executive (HSE) inspector. What should you do?

- ☐ A Ask other workers what you should tell the inspector
- ☐ B Ask your supervisor what you should tell the inspector
- ☐ C Co-operate and tell the inspector exactly what you saw
- ☐ D Not tell the inspector anything, and ask them to talk to your supervisor

1.04 If you notice that a design detail can't be built in the way it has been drawn in the plans, what two things should you do?

You will be asked to 'drag and drop' your answers

- ☐ A Leave that detail out altogether
- ☐ B Build it as you think it should be done
- ☐ C Keep quiet as it will mean more work for you
- ☐ D Only make the changes when they are approved in writing
- ☐ E Raise the issue with your supervisor before you start work

1.05 When workers arrive on site what is the first thing they should do?

- ☐ A Walk around the site to inspect the work from the day before
- ☐ B Enter the site by the easiest route and start work
- ☐ C Get their tools out of the store and start work
- ☐ D Make sure that the site team knows they are there

1.06 If a worker fails to report a near miss, what could happen?

- ☐ A The company could go out of business through neglect
- ☐ B The employee could get a large fine
- ☐ C The near miss could be a serious accident next time
- ☐ D The site manager will be sacked immediately



- 1.07 What are **two** possible consequences for you if your employer does **not** prevent accidents and ill health at work?

You will be asked to 'drag and drop' your answers

- ☐ A You will have to work longer hours to earn more money
- ☐ B You may suffer an injury, affecting your health and wellbeing
- ☐ C You won't get the training required to continue working on site
- ☐ D You may not be able to work, which would affect your income and family life
- ☐ E You will have worse welfare facilities on site while improvements are made

- 1.08 What are **two** possible consequences for employers of **not** taking measures to prevent accidents and ill health at work?

You will be asked to 'drag and drop' your answers

- ☐ A They could be fined or imprisoned
- ☐ B They will damage the environment
- ☐ C They will need to employ more people
- ☐ D They will have to change the site layout for emergency vehicles
- ☐ E They will lose time and money due to the cost of any accident or ill health

- 1.09 What does the word **hazard** mean?

- ☐ A Anything that could cause harm
- ☐ B The construction site accident rate
- ☐ C The likelihood of something happening
- ☐ D A type of removable barrier or machine guard

- 1.10 What is the **main** reason for understanding the fire and emergency procedures on site?

- ☐ A To know where the fire exits and assembly points are in an emergency
- ☐ B To know what tools and equipment can be used during an emergency
- ☐ C To help you to get time off work in an emergency
- ☐ D To stop anyone leaving site in an emergency

- 1.11 Who is responsible for managing health and safety on site?

- ☐ A Site manager
- ☐ B Building inspector
- ☐ C Contracts manager
- ☐ D Health and Safety Executive (HSE)

- 1.12 Why is it the employer's legal responsibility to discuss matters of health and safety with employees?

- ☐ A So that employees do not have any responsibilities for health and safety
- ☐ B So that employees will never have to attend any other health and safety training
- ☐ C So that employees are informed of things that will protect their health and safety
- ☐ D So that your employer will not have any legal responsibility for employees' health and safety

- 1.13 General site rules would **not** normally include information about which one of the following?

- ☐ A Personal protective equipment (PPE)
- ☐ B Names and addresses of workers
- ☐ C Near miss and accident reporting
- ☐ D Site induction procedures

- 1.14 If someone is injured on site, where **should** this be recorded?

- ☐ A In an accident book or record
- ☐ B On the safe system of work plan
- ☐ C On the site plan
- ☐ D In the method of work

- 1.15 What should all risk assessments identify?

- ☐ A The site working hours
- ☐ B How to report accidents
- ☐ C Where the first-aid kit is kept
- ☐ D The hazards in the work environment

- 1.16 When creating a risk assessment the severity of harm is multiplied by what?

- ☐ A The number of workers on site
- ☐ B The likelihood of harm occurring
- ☐ C The cost of injury or harm
- ☐ D The area of the construction site



1.17 Which **two** topics should be covered in a site induction?



You will be asked to 'drag and drop' your answers

- ☐ A Site rules
- ☐ B Local amenities
- ☐ C Holiday entitlement
- ☐ D Local transportation links
- ☐ E Site emergency procedures

1.18 How would you expect to find out about health and safety rules when you **first** arrive on site?



- ☐ A During the induction
- ☐ B In a letter sent to your home
- ☐ C By reading the health and safety policy
- ☐ D By asking other workers to show you around

1.19 What is a toolbox talk?



- ☐ A A sales talk given by a tool supplier
- ☐ B A talk that tells you where to buy tools
- ☐ C Your first training session when you arrive on site
- ☐ D A short training session on a particular safety topic

1.20 What is the **main** reason for attending a site induction?



- ☐ A To get to know other new employees
- ☐ B Site rules and hazards will be explained
- ☐ C To create the method statements for the site
- ☐ D Permits to work will be written and handed out

1.21 What **should** you do if the safety rules given in your site induction seem out of date as work progresses?



- ☐ A Speak to your supervisor about your concerns
- ☐ B Nothing, as safety is the site manager's responsibility
- ☐ C Speak to your workmates to see if they have any new rules
- ☐ D Make up your own safety rules to suit the changing conditions

1.22 During the site induction you do not understand something the presenter says. What **should** you do?



- ☐ A Attend another site induction
- ☐ B Ask the presenter to explain it again
- ☐ C Guess what the presenter was saying
- ☐ D Wait until the end, then ask someone else to explain

1.23 Employers must provide workers with instructions that meet which requirement?



- ☐ A Downloadable from the internet
- ☐ B Written in large print
- ☐ C Available in audio
- ☐ D In a format each worker understands

1.24 A worker finds a way of working that is quicker than the method statement they have been given. What **should** they do?



- ☐ A Inform work colleagues so they can work this way
- ☐ B Get their work done more quickly so they can leave early
- ☐ C Get more work done so they can earn more money
- ☐ D Continue to follow the safe system of work for the task

1.25 Who **should** you speak to if the work of another contractor is affecting your safety?



- ☐ A Your supervisor
- ☐ B The contractor
- ☐ C Your workmates
- ☐ D The contractor's supervisor

1.26 What **should** you do if you **cannot** do a job in the way described in the method statement?



- ☐ A Make up a better way to do it and carry on
- ☐ B Contact the Health and Safety Executive (HSE)
- ☐ C Ask other workers how they think it should be done
- ☐ D Do not start work until you have talked to your supervisor

1.27 What **should** a worker do if the helmet they are using is damaged?



- ☐ A Use it but keep checking it
- ☐ B Put a sticker over the damaged area
- ☐ C Report it at the end of the day
- ☐ D Replace it immediately



## 02 Accident reporting and recording

- Reporting unsafe conditions is everyone's responsibility on site.
- Reporting near misses will help to prevent them happening again.
- Plant and machinery should only be used by authorised and competent operatives.
- Any accident causing injury must be recorded in an accident book.
- All relevant staff should be involved in investigating accidents and near misses.

02

**2.01** You suffer an injury at work and the details are recorded in the accident book. What **must** happen to this accident record?

- ☐ A It must be kept in a place where anyone at work can read it
- ☐ B It must be sent to the insurance company at the end of the job
- ☐ C It must be treated as confidential under data protection laws
- ☐ D It must be destroyed at the end of the job, due to confidentiality

**2.02** What **must** be done if an operator is driving plant equipment faster than site speed limits?

- ☐ A Alert all other staff on site to be careful
- ☐ B Inform a supervisor or manager
- ☐ C Shout at the driver, telling them to slow down
- ☐ D Wait until they stop and talk to them about it

**2.03** In order to reduce the risk of accidents, which **one** of the following **should** be avoided when driving vehicles on site?

- ☐ A Use designated turning areas
- ☐ B Implement a one-way system around the site
- ☐ C Drive-through loading and unloading areas
- ☐ D Reverse without the use of a vehicle marshaller

**2.04** Which **two** of the following would result in you being **ordered** off site?

- ☐ A Losing your road users' driving licence
- ☐ B Being under the influence of alcohol
- ☐ C Driving downhill with a heavy load
- ☐ D Driving without using the flashing beacon
- ☐ E Being under the influence of drugs

**2.05** You have been injured in an accident at work and, as a result, are absent for more than seven days. Which **two** of the following actions **must** be taken?

You will be asked to 'drag and drop' your answers

- ☐ A The accident must be recorded in the accident book
- ☐ B The local hospital and the benefits office must be informed
- ☐ C You must pay for any first-aid equipment used to treat your injury
- ☐ D Your employer must inform the Health and Safety Executive (HSE)
- ☐ E The emergency services must be called to find out how the accident happened

**2.06** If you have a minor accident, who **should** report it?

- ☐ A You, if possible
- ☐ B The sub-contractor
- ☐ C Anyone who saw the accident
- ☐ D The Health and Safety Executive (HSE)

**2.08** Why **should** you report an accident?

- ☐ A It is a legal requirement
- ☐ B It helps the site find out who caused it
- ☐ C So that everyone can find out what happened
- ☐ D So that your company will be held responsible

**2.07** You are injured in an accident at work. When **should** you report it?

- ☐ A The next day before you start work
- ☐ B Immediately, or as soon as possible
- ☐ C Only if you have to take time off work
- ☐ D At the end of the day, before you go home

**2.09** Who **must** you report a serious accident to?

- ☐ A Site security
- ☐ B Your employer
- ☐ C The police service
- ☐ D The ambulance service

02



**2.10** What action should be taken if you witness a serious accident on site?

- ☐ A Telephone the local doctor for advice
- ☐ B Tell your supervisor that you saw what happened
- ☐ C Say nothing in case you get someone into trouble
- ☐ D Ask your workmates what they think you should do

**2.11** Which of the following statements best describes a near miss?

- ☐ A An incident that nearly resulted in injury or damage
- ☐ B An incident where you were just too late to see what happened
- ☐ C An incident where someone was injured and nearly had to go to hospital
- ☐ D An incident where someone was injured and nearly had to take time off work

**2.12** While working on site you cut one of your fingers. What should you do?

- ☐ A Report it and get first aid if necessary
- ☐ B Clean it and tell your supervisor about it later
- ☐ C Wash it, and if it is not a problem carry on working
- ☐ D Report it at the end of the day or the end of the shift

**2.13** What is the main objective of carrying out an accident investigation?

- ☐ A To place blame
- ☐ B To identify the people involved
- ☐ C To find the cause and prevent recurrence
- ☐ D To help track the cost of insurance claims

**2.14** A scaffold has collapsed and you saw it happen. What should you say when you are asked about the accident?

- ☐ A Who you think should be blamed and punished
- ☐ B Exactly what you saw, giving as much detail as possible
- ☐ C As little as possible because you are not a scaffold expert
- ☐ D As little as possible because you don't want to get people into trouble

**2.15** Which two of the following are the main reasons for reporting accidents, incidents and near misses?

- ☐ A To find out whom claims should be made against
- ☐ B To understand how and why things went wrong
- ☐ C Certain incidents or accidents have to be reported to the Health and Safety Executive (HSE)
- ☐ D To make sure none of the supervisors find out about the accident
- ☐ E To help the company avoid being prosecuted or fined

**2.16** Which two of the following items should be recorded in the accident book?

You will be asked to 'drag and drop' your answers

- ☐ A Injuries sustained
- ☐ B Date of the accident
- ☐ C Telephone number
- ☐ D Location of the hospital
- ☐ E National insurance number

**2.17** If someone is injured at work, who should record it in the accident book?

- ☐ A The first aider identified on site
- ☐ B The company contract manager
- ☐ C The injured person or someone acting for them
- ☐ D Someone from the Health and Safety Executive (HSE)

**2.18** Which of the following does not have to be recorded in the accident book?

- ☐ A Details of the injury sustained
- ☐ B The injured person's home address
- ☐ C The date and time that the injury happened
- ☐ D The injured person's national insurance number

**2.19** Which of the following is the least important reason for recording all accidents?

- ☐ A It might stop them happening again
- ☐ B Details have to be entered in the accident book
- ☐ C To find out who is to blame and make sure they are prosecuted
- ☐ D Some accidents have to be reported to the Health and Safety Executive (HSE)



## 03 First aid and emergency procedures

- All first aiders should have a current, up-to-date first aid at work certificate.
- The place to go in the event of an emergency is called an **assembly point**.
- The location of the emergency assembly point should be identified in a site induction.



Emergency assembly point

**3.01** What should be done in the event of an emergency on site?

- ☐ A Follow the site emergency procedure
- ☐ B Collect your personal items and leave the site
- ☐ C Leave the site by the nearest exit and return home
- ☐ D Phone the Health and Safety Executive (HSE) for advice

**3.02** Which **two** of the following will help you to find out about the site emergency procedures and emergency telephone numbers?

- ☐ A Attending the site induction
- ☐ B Reading the site noticeboards
- ☐ C Looking in the telephone directory
- ☐ D Guidance from your local job centre
- ☐ E Guidance from the Health and Safety Executive (HSE) website

**3.03** How **should** you be informed about what to do in an emergency? Give **two** answers.

- ☐ A By asking at the local hospital
- ☐ B By attending the site induction
- ☐ C By reading the site noticeboards
- ☐ D By looking in the health and safety file
- ☐ E By asking the Health and Safety Executive (HSE)

**3.04** What **two** things should you do if there is an emergency situation on site?

You will be asked to 'drag and drop' your answers

- ☐ A Finish what you are doing
- ☐ B Leave the area via the nearest exit
- ☐ C Go to the designated assembly point
- ☐ D Collect personal items from the site office
- ☐ E Look for other people who may not know what to do

**3.05** What information **should** be gathered after a near miss incident occurs?

- ☐ A The names of next of kin for the people involved
- ☐ B Where those involved lived at the time of the incident
- ☐ C The activities that were being carried out at the time
- ☐ D The cost of the project at the time of the incident

**3.06** You witness a serious accident on site. What **immediate** action should you take? Give **two** answers

- ☐ A Call out to other workers so they can call for help
- ☐ B Check if it is safe to approach the injured person
- ☐ C Sit the injured person up and give them food and water
- ☐ D Record the date and time in the incident book
- ☐ E Lift the injured person and take them to the site office

**3.07** What **should not** be in a first-aid kit?

- ☐ A Bandages
- ☐ B Plasters
- ☐ C Safety pins
- ☐ D Tablets and medicines

**3.08** Does your employer have to provide a first-aid kit?

- ☐ A Yes, every site must have one
- ☐ B Only if more than 25 people work on site
- ☐ C Only if more than 50 people work on site
- ☐ D No, there is no legal duty to provide one



3.09 If the first-aid kit on site is empty, what **should** you do?

- ☐ A Bring your own first-aid supplies into work
- ☐ B Ignore the problem as it is always the same
- ☐ C Find out who is taking all the first-aid supplies
- ☐ D Inform the person who looks after the first-aid kit

3.10 What is the one thing a first aider **cannot** do?

- ☐ A Stop any bleeding
- ☐ B Treat you if you are unconscious
- ☐ C Give mouth-to-mouth resuscitation
- ☐ D Give you medicines without authorisation

3.11 Evacuation routes **should** be:

- ☐ A lit at all times of the day
- ☐ B painted bright green
- ☐ C used as assembly points
- ☐ D clear and unobstructed

3.12 If you find an injured person and you are on your own, what **should** you do **first**?

- ☐ A Assess the situation – do not put yourself in danger
- ☐ B Inform your supervisor that someone has been injured
- ☐ C Move the injured person to a safe place, and then find your supervisor
- ☐ D Ask the injured person what happened, and then find your supervisor

3.13 Someone working in a deep inspection chamber has collapsed. What **should** you do **first**?

- ☐ A Climb into the inspection chamber and give first-aid treatment
- ☐ B Get someone to lower you into the inspection chamber on a rope
- ☐ C Raise the alarm and stay by the inspection chamber, but do not enter
- ☐ D Ask someone to find your supervisor while you try to rescue the worker

3.14 Someone is knocked unconscious and you are **not** trained in first aid. What **should** you do **first**?

- ☐ A Send for medical help
- ☐ B Slap their face to wake them up
- ☐ C Give them mouth-to-mouth resuscitation
- ☐ D Turn them over so that they are lying on their back

3.15 Someone has fallen from height and has no feeling in their legs. What **should** you do?

- ☐ A Keep them still until medical help arrives
- ☐ B Roll them onto their side and bend their legs
- ☐ C Raise their legs to see if any feeling comes back
- ☐ D Keep their legs straight and roll them onto their back

3.16 Someone collapses with stomach pain and there is no first aider on site. What **should** you do **first**?

- ☐ A Ask them to sit down
- ☐ B Get them to take some painkillers
- ☐ C Ask someone to call the emergency services
- ☐ D Help them to lie down in the recovery position

3.17 If you think someone has broken their leg, what **should** you do?

- ☐ A Place them on their back
- ☐ B Send for the first aider or get other help
- ☐ C Use your belt to strap their legs together
- ☐ D Place them on their side in the recovery position

3.18 If you cut your finger and it won't stop bleeding, what **should** you do?

- ☐ A Wash it, then carry on working
- ☐ B Find a first aider or get other medical help
- ☐ C Wrap something around it and carry on working
- ☐ D Tell your colleagues because you may need to rest

3.19 If there is an emergency while you are on site, what **should** you do **first**?

- ☐ A Leave the site and go home
- ☐ B Phone home and then leave the site
- ☐ C Follow the site emergency procedure
- ☐ D Phone the Health and Safety Executive (HSE)

3.20 If someone is in contact with a live cable, what **should** you do **first**?

- ☐ A Phone the electricity company
- ☐ B Pull them away from the cable
- ☐ C Isolate the power and call for help
- ☐ D Dial 999 and ask for an ambulance



# 04 Personal protective equipment

- Employers should provide workers with personal protective equipment (PPE) and the means to maintain it correctly, free of charge.
- Wearing PPE will help to protect workers from physical injury or ill health.
- Size and fit should be considered in the selection of suitable PPE.
- Stop work immediately and replace PPE if it gets damaged.

04

4.01 When **must** your employer provide you with personal protective equipment (PPE)?

- ☐ A Twice a year
- ☐ B If you pay for it
- ☐ C If it is in the contract
- ☐ D If you need to be protected

4.02 If you have to work outdoors in bad weather, why **should** your employer supply you with waterproof clothing?

- ☐ A To keep you warm and dry, so you take fewer breaks
- ☐ B To protect you from the weather, which will reduce trips and falls
- ☐ C To keep you warm and dry, so you are less likely to catch Weil's disease (leptospirosis)
- ☐ D To protect you from the weather, as you are less likely to get muscle strains if you are warm and dry





4.03 Which of the following statements about personal protective equipment (PPE) is **not** true?

- ☐ A You must use it as instructed
- ☐ B You must pay for any damage or loss
- ☐ C You must store it correctly when you are not using it
- ☐ D You must report any damage or loss to your supervisor





4.04 Which of the following statements about wearing a safety helmet in hot weather is true?

- ☐ A You can modify it to keep your head cool
- ☐ B You must wear it at all times and in the right way
- ☐ C You must take it off during the hottest part of the day
- ☐ D You can wear it back-to-front if it is more comfortable that way

4.05 What should you wear if there is a risk of materials flying into your eyes?

- ☐ A  Tinted welding goggles
- ☐ B  Laser safety glasses
- ☐ C  Chemical-rated goggles
- ☐ D  Impact-rated goggles

4.06 When using a grinder or cut-off saw, what type of eye protection should be worn?

- ☐ A  Impact-rated goggles or full face shield
- ☐ B  Light eye protection (safety glasses)
- ☐ C  Reading glasses or sunglasses
- ☐ D  Welding goggles

4.07 When **should** you wear safety footwear on site?

- ☐ A All the time
- ☐ B Only when working inside
- ☐ C Until the site starts to look finished
- ☐ D Only when working at ground level

4.08 When is the only time that you do **not** need to wear head protection on site?

- ☐ A If you are self-employed
- ☐ B If you are working alone
- ☐ C If you are in a safe area, like the site office
- ☐ D If you are working in hot weather

4.09 When you start a new task, how will you know if you need any **extra** personal protective equipment (PPE)?

- ☐ A You will always need it
- ☐ B By looking at the risk assessment
- ☐ C By looking at the company webpage
- ☐ D By looking at your employer's health and safety policy

04



- 4.10 What is the main risk to this worker, wearing only these items of personal protective equipment (PPE)?



- ☐ A Dermatitis to skin
- ☐ B Damage to hearing
- ☐ C Eye injuries
- ☐ D Breathing in harmful dust

- 4.11 When selecting appropriate personal protective equipment (PPE), what is the most important factor to be taken into account?

- ☐ A The type of hazard
- ☐ B Can it be recycled
- ☐ C The cost of the equipment
- ☐ D How long it will last

- 4.12 What additional measures can be worn under a hard hat in cold weather?

- ☐ A A baseball cap
- ☐ B A jumper with a detachable hood
- ☐ C A woolly hat
- ☐ D A manufacturer's attachment

- 4.13 What will safety footwear with a protective mid-sole protect you from?

- ☐ A Spillages, which may burn the sole of your foot
- ☐ B Blisters, which could occur in warm, wet conditions
- ☐ C Twisting your ankle, as they have better grip than regular shoes
- ☐ D Nails or sharp objects, which could puncture the sole of your foot

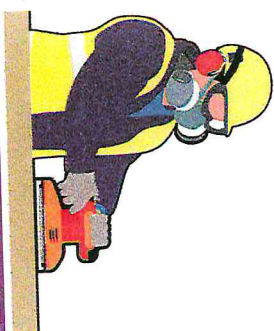
- 4.14 What condition could be prevented if the correct gloves are worn while handling a hazardous substance?

- ☐ A Arthritis
- ☐ B Skin disease
- ☐ C Vibration white finger
- ☐ D Raynaud's syndrome

- 4.15 Will all types of glove protect your hands against chemicals?

- ☐ A Yes, all gloves are made to the same standard
- ☐ B Only if you cover the gloves with barrier cream
- ☐ C Only if you put barrier cream on your hands first
- ☐ D No, different gloves protect against different types of hazard

- 4.16 Which item of personal protective equipment (PPE) is helping to protect the worker from dermatitis?



- 4.17 Good quality personal protective equipment (PPE) will be marked with which letter or letters?

- ☐ A CE
- ☐ B ©
- ☐ C HSE
- ☐ D ®

- 4.18 How should a safety helmet be worn to get maximum protection from it?

- ☐ A Back to front
- ☐ B Pushed back on your head
- ☐ C Square on your head
- ☐ D Pulled forward

- 4.19 What should you do if your disposable, foam earplugs keep falling out?

- ☐ A Throw them away and work without them
- ☐ B Put rolled-up tissue paper in each ear instead
- ☐ C Put two earplugs in each ear so that they stay in place
- ☐ D Stop work until you are shown how to fit them properly

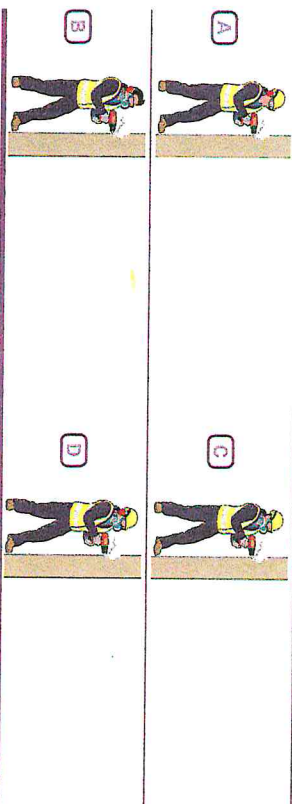
- 4.20 If you need to wear a full body harness and you have not used one before, what should you do?

- ☐ A Try to work it out for yourself
- ☐ B Ask for expert advice and training
- ☐ C Read the manufacturer's instruction book
- ☐ D Ask someone wearing a harness to show you what to do

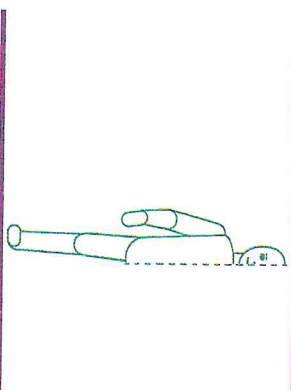


04

4.21 Which of the following figures is wearing the **correct** personal protective equipment (PPE)?



4.22 Where on the body would a worker wear respiratory protective equipment (RPE)?

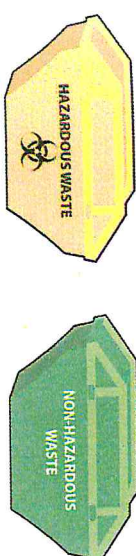


## 05 Environmental awareness and waste control

05

- Everyone is responsible for minimising the amount of waste generated on site.
- Following the site environmental risk assessment will help to prevent pollution on a construction site.

- Segregating waste materials supports recycling and helps to avoid pollution.



Waste skips

- Re-using leftover materials helps to save energy and conserves raw materials.
- Recycling construction materials avoids waste going to landfill.
- Everyone on site should take responsibility for saving energy and water by turning off plant, equipment and taps when not in use.
- A good way of reducing energy if heating or cooling systems are being used in site accommodation is to keep windows and doors closed.
- Spill kits should be available to clean up spilt chemicals and oils.
- Bats and badgers are classed as protected species, and are protected by law.
- Many historic buildings are listed and protected by law; permission is required before making any changes to them.

5.01 What **should** be done with waste concrete and washout water?

- ☐ A Bury it on site, as it will break down over time
- ☐ B Pour it down a drain with plenty of water
- ☐ C Bury it in a disposable bin liner
- ☐ D Place it in a lined skip for recycling

5.02 This label is shown on the container of a liquid that a worker is using on site. What does it mean?



- ☐ A It can be used to feed plants and fish
- ☐ B It is harmful to the environment
- ☐ C It could cause a drought
- ☐ D It will only cause death to fish



05

5.03 Which **two** of the following are common causes of water pollution on sites?



You will be asked to 'drag and drop' your answers

- ☐ A Fuels being stored incorrectly and too close to drains
- ☐ B Rain water washing material out of skips into surface water drains
- ☐ C Exhaust gases from mobile plant getting into drainage systems
- ☐ D Smoking and e-smoking near drainage systems
- ☐ E Walkways freezing in winter near drainage systems

5.04 Which one of the following is **true** of a spill on site, involving just **one** litre of oil?

- ☐ A It is too small to cause a problem
- ☐ B The main problem is that oil is expensive
- ☐ C It will contaminate the ground
- ☐ D It could cause serious air pollution

5.06 What are **two** of the **best** ways of helping to **save** energy on site and reduce harmful emissions?

- ☐ A Switch off plant and equipment, including generators, when they are not in use
- ☐ B Keep windows and doors closed in offices and welfare facilities when the heating is on
- ☐ C Report any defective, non-powered hand tools so that they can be repaired or replaced
- ☐ D Use a generator rather than mains electricity for the offices and small items of equipment

5.05 Which **three** statements are reasons why saving energy is important?



You will be asked to 'drag and drop' your answers

- ☐ A It helps to reduce fuel and energy bills on site
- ☐ B It helps to increase energy use on other sites
- ☐ C It helps to save natural resources used to generate energy
- ☐ D It helps energy companies to charge more for their services
- ☐ E It helps to reduce the impact of climate change caused by burning fossil fuels

05

5.07 Over ordering materials can result in what?



- ☐ A Accidents
- ☐ B Waste
- ☐ C Danger
- ☐ D Lower costs

5.08 You are on site and need to throw away some waste liquid that has oil in it. What should you do?





- ☐ A Pour it down a drain or sink in the welfare facilities
- ☐ B Pour it slowly onto the ground and let it soak away
- ☐ C Pour it into a sealed container and put it into a general waste skip
- ☐ D Ask your supervisor what the disposal process is for contaminated liquid

5.09 Which **two** items are classed as hazardous waste?

- ☐ A Broken bricks
- ☐ B Untreated timber off-cuts
- ☐ C Panes of glass
- ☐ D Fluorescent light tubes
- ☐ E Used spill kits

5.10 Which items are hazardous waste and which are non-hazardous waste?



- ☐ A  Fluorescent light tubes
- ☐ B  Broken bricks
- ☐ C  Untreated timber off-cuts
- ☐ D  Oil-based paint

Non-hazardous

Hazardous



05

5.11 What is the **correct** way to clean up oil that has leaked from machinery onto the ground?

- ☐ A Put the oily soil into the general waste skip
- ☐ B Wash the oil away with water and detergent
- ☐ C Mix the soil up with other soil so that the oil cannot be seen
- ☐ D Put the oily soil into a separate container for collection as hazardous waste

5.14 What should be done if there is an oil or diesel spill on site?

- ☐ A Use a spill kit to clean it up before the end of the day
- ☐ B Ignore it. Oil or diesel spills do not have serious, long-term effects
- ☐ C Stop work, contain the spill, notify the supervisor and then clean up the spill
- ☐ D Call the Environment agency immediately so they can arrange to have it cleaned up

5.12 How should hazardous waste be dealt with on site? Give **two** answers.



You will be asked to 'drag and drop' your answers

- ☐ A Put it in a mixed waste skip
- ☐ B Segregate it from other waste
- ☐ C It can be put in any skip on site
- ☐ D Place it in the correctly labelled container
- ☐ E Take it to the nearest Local Authority waste tip

5.13 Under environmental law, which of the following statements is **true**?



- ☐ A Only directors can be prosecuted if they do not follow the law
- ☐ B Only companies can be prosecuted if they do not follow the law
- ☐ C Only employees can be prosecuted if they do not follow the law
- ☐ D Companies and employees can be prosecuted if they do not follow the law

5.15 Which of the following is **most** likely to cause air pollution?



- ☐ A Fuel spillage
- ☐ B Using diesel engines
- ☐ C Surface run-off
- ☐ D Excessive noise

5.16 Which **two** actions could help minimise waste?



You will be asked to 'drag and drop' your answers

- ☐ A Use new materials at the beginning of each day
- ☐ B Always take much more than required, just in case you need it
- ☐ C Leave bags of cement and plaster out in the rain, unprotected
- ☐ D Only take or open what you need and return or resal anything left over
- ☐ E Reuse off-cuts (such as half bricks) rather than discarding them

5.17 What are the **two** most important reasons why waste should be segregated on site?



You will be asked to 'drag and drop' your answers

- ☐ A The waste will take up less room in a skip
- ☐ B It is generally more cost effective to dispose of segregated waste
- ☐ C So that the wastes can be used or recycled more easily
- ☐ D So that the client can check what is being thrown away
- ☐ E To make sure that the labourer has enough work to do

5.18 Which of the following is **bad** practice?



- ☐ A Storing materials safely
- ☐ B Mixing all waste in one skip
- ☐ C Refuelling carefully to avoid spills
- ☐ D Switching off plant and equipment when it is not in use

5.19 On site, waste **should** be collected in what?



- ☐ A Segregated skips
- ☐ B Bins and bays
- ☐ C General skips
- ☐ D Bays and buckets

05



5.20 You discover a bird on a nest where you need to work. What should you do?

- ☐ A Scare it away by making loud noises, then carry on with your work
- ☐ B Cover it with a sheet so it can be moved out of the way before starting work
- ☐ C Move it to a place of safety, carry out your work and then put it back
- ☐ D Protect it from further disturbance, make others aware and inform your supervisor

5.21 Certain species of plants and animals in England are protected by law. A worker is breaking the law if they do which **two** things to the plant or animal?

- ☐ A Report it
- ☐ B Photograph it
- ☐ C Remove it
- ☐ D Feed it
- ☐ E Destroy its habitat

You will be asked to 'drag and drop' your answers

5.22 Which of the following is an effective way to avoid causing harm to protected species?

- ☐ A Only working at night
- ☐ B Avoiding breeding season
- ☐ C Take them to the site office
- ☐ D Using manually operated machinery

5.23 During excavation work, some interesting old coins are found in the loosened soil. What is the **most** appropriate action?

- ☐ A Stop excavating the site and contact the supervisor
- ☐ B Keep excavating and see how many more there are to find
- ☐ C Keep quiet. The person who found them should keep them
- ☐ D Hide them. Archaeologists working on site will delay the works

5.24 Preserving old buildings is important for contributing to an area's what?

- ☐ A Historical record
- ☐ B Cost of living
- ☐ C Infrastructure
- ☐ D House prices

5.25 Which of the following does **not** cause a nuisance to neighbours of a building site?

- ☐ A Dust and fumes from the site
- ☐ B Carefully directed site lighting
- ☐ C Lorries and heavy plant
- ☐ D Noise and vibration from the work

5.26 You are carrying out a noisy work activity and realise that it cannot be finished within the normal working hours of your site. What is the **first** thing you should do?

- ☐ A Carry on so that you can finish doing the job as soon as possible
- ☐ B Visit the neighbours of the site to tell them what you will be doing
- ☐ C Ensure you are wearing appropriate hearing protection before you resume work
- ☐ D Stop work and inform site management so they can look at the impact of the activity

5.27 Why is it bad practice to store heavy materials underneath a tree?

- ☐ A The tree branches could get damaged
- ☐ B Materials are not protected from the tree sap
- ☐ C Mould could grow on the stored materials
- ☐ D Compaction of the soil could damage the tree roots

5.28 Which of the following would help to protect the environment?

- ☐ A Keeping accurate time sheets
- ☐ B Arriving on time for work every day
- ☐ C Keeping to the health and safety rules
- ☐ D Saving water and energy wherever possible

5.29 What is the **best** way to minimise dust on site?

- ☐ A Covering the whole site
- ☐ B Using powered tools only
- ☐ C Reducing use of the wheel-wash
- ☐ D Dampening using fine water sprays

5.30 What type of pollution would you associate with hand-held power tools?

- ☐ A Smoke
- ☐ B Noise
- ☐ C Water
- ☐ D Light



CONTENTS

B

Occupational health

06	Dust and fumes (Respiratory hazards)	42
07	Noise and vibration	53
08	Health and welfare	59
09	Manual handling	72



## OCCUPATIONAL HEALTH

### 06 Dust and fumes (Respiratory hazards)

- Harmful dust is often invisible to the naked eye.
- Breathing in harmful dust can cause life shortening illnesses.
- Breathing in construction dust can result in occupational lung diseases, such as asthma and silicosis.
- Respiratory protective equipment (RPE) will only be effective if it fits the wearer's face properly.
- Face-fit testing should be carried out as part of the initial selection of RPE.
- A face-fit test will ensure that your RPE fits and functions properly.
- Wearing your RPE will help to prevent you from breathing in harmful dust and fumes.
- An on-tool extraction system is a method of dust control.
- Fumes will build up very quickly in a confined space.
- Carbon monoxide is a colourless, odourless, poisonous gas.
- Sparks or naked flames can easily ignite flammable vapours.

06

6.01 You have been asked to do some work that will create dust. What **should** you do?

- ☐ A You should not do the work because dust is highly dangerous
- ☐ B Start the work. No controls are needed as dust cannot cause serious harm or injury
- ☐ C Work for short periods at a time. Regular breaks will reduce the amount of dust you breathe in
- ☐ D Use equipment to eliminate or reduce the dust and wear the correct personal protective equipment (PPE)

42






## OCCUPATIONAL HEALTH

6.02 If someone is using a petrol cut-off saw (disc cutter) to cut concrete blocks near to pedestrians, what **two** immediate hazards will affect the pedestrians?

You will be asked to 'drag and drop' your answers

- ☐ A Harmful dust
- ☐ B An electric shock
- ☐ C Flying fragments
- ☐ D Contact dermatitis
- ☐ E Vibration white finger

6.03 Which **two** materials are **most** likely to release silica dust when being cut with a rotating blade?

- ☐ A  Paving slabs
- ☐ B  Concrete blocks
- ☐ C  Timber
- ☐ D  Loft insulation
- ☐ E  Plastic pipes

6.04 What is the **main** cause of long-term health issues in the construction industry?

- ☐ A Slipping and tripping
- ☐ B Exposure to loud noise
- ☐ C Being struck by a vehicle
- ☐ D Breathing in hazardous dust and fumes

6.05 Where are you likely to be exposed to the highest quantities of dust when drilling, cutting, sanding or grinding?

- ☐ A Inside a small room
- ☐ B Inside a large space
- ☐ C Outside on a still day
- ☐ D Outside on a windy day

6.06 What is the **best** way to limit exposure to dust when using a power tool?

- ☐ A Do the work quickly
- ☐ B Stop dust getting into the air
- ☐ C Stand downwind of any dust
- ☐ D Use the tool during wet weather

06

43



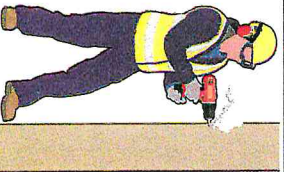
6.07 Which of the following activities does **not** create harmful silica dust?

- ☐ A Sawing timber or plywood
- ☐ B Breaking up concrete floors and screeds
- ☐ C Cutting kerbs, stone, paving slabs, bricks and blocks
- ☐ D Chasing out walls and mortar joints or sweeping up rubble

6.08 After asbestos, which of the following causes the **most** ill health to construction workers?

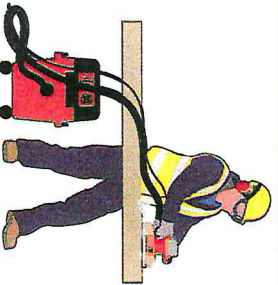
- ☐ A Silica dust
- ☐ B Diesel fumes
- ☐ C Wood and MDF dust
- ☐ D Resin, solvent and paint vapours

6.09 What is the **main** risk to this worker, wearing **only** these items of personal protective equipment (PPE)?



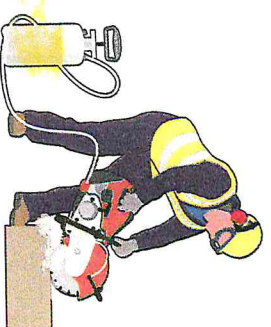
- ☐ A Breathing in harmful dust
- ☐ B Back injury, from poor posture
- ☐ C Goggles misting up, limiting vision
- ☐ D Not being able to hear colleagues

6.10 What is the **main** risk to this worker, wearing **only** these items of personal protective equipment (PPE)?



- ☐ A Breathing in harmful dust
- ☐ B Back injury, from poor posture
- ☐ C Goggles misting up, limiting vision
- ☐ D Not being able to hear colleagues

6.11 What is the **most** serious risk to this worker, wearing **only** these items of personal protective equipment (PPE)?



- ☐ A Breathing in harmful dust
- ☐ B Back injury, from poor posture
- ☐ C Goggles misting up, limiting vision
- ☐ D Not being able to hear colleagues

6.12 Pigeon droppings and nests are found in an area where you are required to work. What **should** you do?

- ☐ A Stop work, do not touch anything, and seek advice
- ☐ B Carry on with your work carefully, so you don't disturb them
- ☐ C Try to catch the pigeons so you can move them out of the way
- ☐ D Wait for the pigeons to fly away before carrying on with your work

6.13 How **should** water be used to reduce the level of dust when cutting concrete using a cut-off saw?

- ☐ A Enough to wet the surface of the concrete before cutting
- ☐ B Constantly the whole time the concrete is being cut
- ☐ C Constantly until you are half way through the concrete cut, then stop
- ☐ D Enough to make the first cut, then no more will be required

6.14 Before clearing up some rubble **inside** a building, why is it advisable to spray water on it?

- ☐ A So it doesn't make a mess
- ☐ B To prevent dust clouds
- ☐ C To kill any insects in it
- ☐ D To save time

6.15 What **should** you do if you find lots of old bird nests and droppings in an area you are working in?

- ☐ A Carry on working and work around them
- ☐ B Sweep them up and put them in a bin liner immediately
- ☐ C Stop working and speak to a supervisor to arrange for decontamination work
- ☐ D Check there are no live birds present, then carry on working



## OCCUPATIONAL HEALTH

6.16 What best describes how workers should treat dust?

- ☐ A Assume dust is safe if they are working outdoors
- ☐ B Assume dust is not safe wherever they are working
- ☐ C Assume dust is safe unless told otherwise
- ☐ D Assume dust is safe if they don't feel any ill effects

6.17 Which of the following is **not** an immediate health effect of being exposed to paints and resins which have high levels of solvents?

- ☐ A Headaches and sickness
- ☐ B Dermatitis or skin problems
- ☐ C Muscular and skeletal disorders
- ☐ D Drowsiness or poor co-ordination





6.18 Engine driven equipment is being used in a deep excavation. Which of the following **should** be in place?

- ☐ A Gas monitoring alarms
- ☐ B Additional excavation covers
- ☐ C A vehicle marshal
- ☐ D Additional stop blocks

6.19 Who can enter a confined space?

- ☐ A Only competent machine drivers who have the correct licence
- ☐ B Anyone who has completed an apprenticeship
- ☐ C Only site managers and supervisors of the company
- ☐ D Anyone who is trained, competent and authorised

6.20 Which kind of personal protective equipment (PPE) can protect your lungs from harmful vapours?

- ☐ A  Goggles
- ☐ B  Hard hat
- ☐ C  Respirator
- ☐ D  Ear defenders

6.21 Which material or substance is **most** likely to give off hazardous vapour?

- ☐ A Dust
- ☐ B Rubber
- ☐ C Glue
- ☐ D Wet concrete

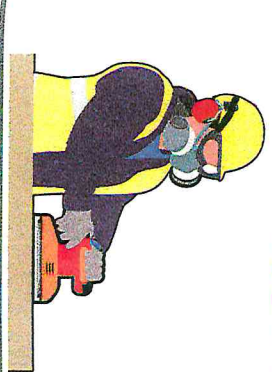
6.22 What can cause occupational asthma?

- ☐ A Exposure to rat urine whilst working
- ☐ B Exposure to loud noise on a regular basis
- ☐ C Skin contact with any hazardous substance
- ☐ D Breathing in hazardous dust, fumes or vapours





6.23 Exposure to which of the following is **unlikely** to result in lung disease?

- ☐ A Asbestos
- ☐ B Silica dust
- ☐ C Strong smells
- ☐ D Bird droppings

6.24 Which item of personal protective equipment (PPE) is helping to protect the worker from nasal cancer?



6.25 Asbestosis is associated with exposure to asbestos. Which part of the body does this disease affect?

- ☐ A  Hands
- ☐ B  Lungs
- ☐ C  Feet
- ☐ D  Brain

6.26 A construction worker has been exposed to concrete dust for a long period of time. What are they **most** likely to suffer from?

- ☐ A Headache or migraine
- ☐ B Blurred vision
- ☐ C Hearing problems
- ☐ D Shortness of breath

6.27 The chances of suffering from lung cancer are **increased** by what?

- ☐ A Breathing in dust
- ☐ B Vibration from power tools
- ☐ C Exposure to sun light
- ☐ D Exposure to steam

## OCCUPATIONAL HEALTH



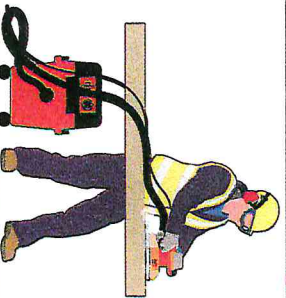
**6.28** When using a power tool to cut or grind materials, why **should** the dust be collected and **not** allowed to get into the air?

- ☐ A Most dust can be harmful if breathed in
- ☐ B The tool will go faster if the dust is collected
- ☐ C To save time and avoid having to clear up the mess
- ☐ D A machine guard is not needed if the dust is collected

**6.31** Which **one** of the following is true of repeated exposure to **small** doses of dust?

- ☐ A It can help to build up immunity
- ☐ B It is unavoidable and harmless
- ☐ C Any effects will be immediately apparent
- ☐ D The effects will build up over time

**6.29** What potential disease is this worker unprotected from?



- ☐ A Tetanus
- ☐ B Nasal cancer
- ☐ C Dermatitis
- ☐ D Skin cancer

**6.30** Hydrogen sulphide is a gas given off by rotting organic substances. Which **two** statements are true about hydrogen sulphide?

- ☐ A It can cause unconsciousness in a few breaths
- ☐ B It is dangerous because it can disable the sense of smell
- ☐ C It is a harmless natural gas
- ☐ D It is dark brown at room temperature
- ☐ E It can safely be detected by using a naked flame

**6.32** What should you do if you need special respiratory protective equipment (RPE) to handle a chemical but no RPE has been provided?

- ☐ A Sniff the substance to see if it makes you feel unwell
- ☐ B Start the work, but take regular breaks to reduce exposure
- ☐ C Do not start work until you have the correct RPE and training
- ☐ D Get on with the job, but try to work quickly to reduce exposure

**6.33** If you have been given a dust mask to protect you against hazardous fumes, what **should** you do?

- ☐ A Start work without a mask but take regular breaks outside
- ☐ B Do the job wearing the mask but work as quickly as you can
- ☐ C Do not start work until you have the correct respiratory protective equipment (RPE)
- ☐ D Wear a second dust mask on top of the first one, in order to increase the protection

**6.34** The seal between an item of respiratory protective equipment (RPE) and a worker's face is **most** likely to be affected by which **two** of the following?



You will be asked to 'drag and drop' your answers

- ☐ A Beard growth
- ☐ B Wearing safety goggles
- ☐ C Sunlight
- ☐ D The wearer's age
- ☐ E Dust levels

**6.36** Which **two** of the following are basic filter types used in respiratory protective equipment (RPE)?

- ☐ A Moisture filters
- ☐ B Smell or aroma filters
- ☐ C Sound filters
- ☐ D Dust or particle filters
- ☐ E Gas or vapour filters

**6.35** Which **two** factors determine the appropriate type of respiratory protective equipment (RPE) to be used for a job?

- ☐ A Whether the RPE is made of rubber or plastic
- ☐ B The amount of time since a hazardous spill
- ☐ C Whether the worker wants to wear RPE or not
- ☐ D The amount of hazardous substances in the air
- ☐ E The type of hazardous substance

**6.37** Which **one** of the following statements about respiratory protective equipment (RPE) is **true**?

- ☐ A Employers must supply it at cost when it is needed
- ☐ B Employers must supply it free of charge when it is needed
- ☐ C Workers should provide their own
- ☐ D Workers should share the cost with the employer



**6.38** How should contaminated respiratory protective equipment (RPE) be considered when being disposed of?

- ☐ A As recyclable materials
- ☐ B As normal waste products
- ☐ C As compostable wastes
- ☐ D As hazardous waste

**6.39** A particle filter is suitable for use in which **one** of the following situations?

- ☐ A Presence of gases
- ☐ B An oxygen-deficient atmosphere
- ☐ C When dust and fibres are in the air
- ☐ D Presence of vapours

**6.42** The seal of your respiratory protective equipment (RPE) can be broken by which **two** things?

- ☐ A Facial hair
- ☐ B Facial scarring
- ☐ C Make-up
- ☐ D A hearing aid
- ☐ E Earrings

You will be asked to 'drag and drop' your answers

**6.40** Why is it important to be clean shaven when using a half-mask respirator?

- ☐ A Facial hair can block the filter more quickly
- ☐ B You may suffer an allergic reaction to the mask
- ☐ C Facial hair can affect the seal around your face
- ☐ D You will be able to use the same mask for longer

**6.41** Which of the following do you **not** need to do to ensure that someone's mask works?

- ☐ A Check the mask is being worn correctly
- ☐ B Check the mask is the correct type needed
- ☐ C Check the mask under water to make sure the seals are tight
- ☐ D Check the user has passed a face-fit test while wearing the mask

**6.43** What is the **most** important consideration when wearing respiratory protective equipment (RPE)?

- ☐ A The weight is correct
- ☐ B It has a good seal
- ☐ C Being able to smell
- ☐ D It is the correct colour

**6.44** If your respiratory protective equipment (RPE) is a bad fit, which **one** of the following is **most** likely to happen?

- ☐ A It will not protect you
- ☐ B It will break easily
- ☐ C It will filter more air
- ☐ D It will get damaged

**6.47** Planned work requires the use of a power tool to cut or grind materials. Select the **two** best ways to control the dust.

- ☐ A Wet cutting
- ☐ B Wear a dust mask
- ☐ C Work slowly and carefully
- ☐ D Keep the area clean and tidy
- ☐ E Fit a dust extractor or collector to the machine

You will be asked to 'drag and drop' your answers

**6.45** How often is it good practice to carry out repeat face-fit tests for respiratory protective equipment (RPE)?

- ☐ A On a regular basis
- ☐ B On an ad-hoc basis
- ☐ C When starting a new shift pattern
- ☐ D When starting work on a different site

**6.46** Respiratory protective equipment (RPE) fit tests **should** be carried out by whom?

- ☐ A The worker who will carry out the work
- ☐ B A supervisor, in compliance with the law
- ☐ C The manager overseeing the work
- ☐ D A competent person in compliance with the law



**6.48** What **must** you do when using water to keep dust down when cutting?

- ☐ A Ensure that there is as much water as possible
- ☐ B Make sure that the water flow is correctly adjusted
- ☐ C Pour water onto the surface before you start cutting
- ☐ D Get someone to stand next to you and pour water from a bottle

**6.49** When drilling, cutting, sanding or grinding, what is the **best** way to protect your long-term health from harmful dust?

- ☐ A Use dust extraction, or wet cut and wear a dust mask
- ☐ B Wear FFP3-rated respiratory protective equipment (RPE)
- ☐ C Wear any disposable respiratory protective equipment (RPE)
- ☐ D Use dust extraction, or wet cut and wear FFP3-rated respiratory protective equipment (RPE)

**6.50** What should you do if you run out of the water you are using to control dust?

- ☐ A Stop and refill the water
- ☐ B Put on additional respiratory protection
- ☐ C Ask everyone to clear the area and then carry on
- ☐ D Carry on but get someone to sweep up afterwards

**6.51** Which of the following **two** options are likely to cause the **most** dust exposure?

- ☐ A Using power tools without extraction
- ☐ B Using hand tools outside
- ☐ C Working with wet or damp materials
- ☐ D Working with dry materials
- ☐ E Using power tools with extraction

**6.52** When working with materials creating dust, what **should** be monitored?

- ☐ A The level of exposure to the dust
- ☐ B The colour of dust created
- ☐ C The smell the dust creates
- ☐ D The direction in which the dust travels

**6.53** Using water suppression to reduce dust will be **most** effective for which one of the following?

- ☐ A Steel grinding
- ☐ B Cutting plywood sheets
- ☐ C Disc cutting steel
- ☐ D Pneumatic chiselling of concrete

## 07 Noise and vibration

- If you have to raise your voice to be understood as a result of noise on site, stop work and raise the problem with your supervisor.
- Always wear the correct protection in a hearing protection zone.



Hearing protection must be worn

- Exposure to vibration is a serious issue as it can result in disabling health conditions that cannot be cured.
- Hand-arm vibration syndrome (HAVS) includes a range of conditions that can lead to permanent damage in the hands and forearms.
- Regular use of hand-held tools and equipment that vibrates is the main cause of hand-arm vibration syndrome.
- Your employer should explain safe methods of use, and give you advice on exposure times for hand-held vibrating tools.

**Z01** How can excessive noise levels affect your hearing? Give **two** answers.



You will be asked to 'drag and drop' your answers

- ☐ A Hearing improvement
- ☐ B Ear infections
- ☐ C Permanent hearing loss
- ☐ D Temporary hearing loss
- ☐ E Dizziness and nausea



**7.02** What are the signs and symptoms of noise-related hearing damage?

- ☐ A Ear infections and regular headaches
- ☐ B Nausea and a skin rash around your ears
- ☐ C There are no signs or symptoms associated with hearing damage
- ☐ D Difficulty following a conversation, especially against background noise

**7.04** Can the damage by exposure to noise over a long period of time be reversed?

- ☐ A Yes, if you change jobs
- ☐ B Yes, if you have an operation
- ☐ C No, the damage is permanent
- ☐ D No, unless medication is used

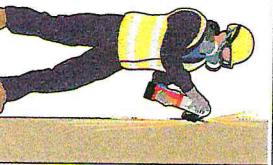
**7.03** If you hear a ringing sound in your ears after working with noisy equipment, what does this mean?

- ☐ A The noise level was high but acceptable
- ☐ B You have also been subjected to vibration
- ☐ C Your hearing has been temporarily damaged
- ☐ D Your hearing protection was working properly

**7.05** What should an employee do if they think noise at work may have damaged their hearing?

- ☐ A Take time off work, as they are unwell
- ☐ B Nothing, as the damage has already been done
- ☐ C Ask their employer or doctor to arrange a hearing test
- ☐ D Plug their ears with cotton wool to stop any more damage

**7.06** What is the main risk to this worker, wearing only these items of personal protective equipment (PPE)?



- ☐ A Dermatitis to skin
- ☐ B Damage to hearing
- ☐ C Eye injuries
- ☐ D Breathing in harmful dust

**7.07** Your doctor tells you that you have hand-arm vibration syndrome (HAVS), possibly caused through work. What should you do?

- ☐ A Tell no one, as it's not contagious
- ☐ B Only inform your friends at work
- ☐ C Inform your supervisor or employer
- ☐ D Tell no one, as HAVS is not reportable

**7.10** What health problem can be caused by using hand-held vibrating tools?

- ☐ A Blisters on your fingers and hands
- ☐ B Skin cancer on your hands and arms
- ☐ C Damage to the blood vessels in your fingers and hands
- ☐ D An itchy skin irritation, like dermatitis, affecting your hands

**7.08** What are three early signs of hand-arm vibration syndrome (HAVS)?

You will be asked to 'drag and drop' your answers

- ☐ A Rash on the fingers
- ☐ B Fingertips turn white
- ☐ C Blisters on the fingers
- ☐ D Temporary loss of feeling in the fingers
- ☐ E Tingling or a pins and needles sensation in the fingers

**7.09** Which one of these tools is most likely to cause hand-arm vibration syndrome (HAVS)?

- ☐ A Handsaw
- ☐ B Hammer drill
- ☐ C Hammer and chisel
- ☐ D Battery-powered screwdriver

**7.11** You are less likely to suffer from hand-arm vibration syndrome (HAVS) if you feel which one of the following?

- ☐ A Cold but dry
- ☐ B Cold and wet
- ☐ C Warm and dry
- ☐ D Wet but warm



**712** You have been using a vibrating tool and the ends of your fingers are starting to tingle. What does this mean?

- ☐ A You can carry on using the tool but you must hold it more tightly
- ☐ B You can carry on using the tool but you must loosen your grip
- ☐ C You need to report your symptoms before they cause a problem
- ☐ D You must not use this tool, or any other vibrating tool, ever again

**715** What does wearing hearing protection do?

- ☐ A Helps you to hear better
- ☐ B Repairs your hearing if it is damaged
- ☐ C Stops you hearing all noise in the workplace
- ☐ D Reduces damaging noise to an acceptable level

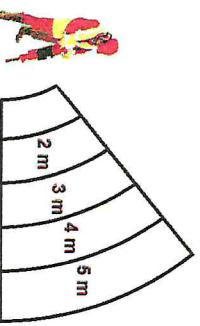
**713** What are **two** recommended ways to protect your hearing?



You will be asked to 'drag and drop' your answers

- ☐ A Earplugs in your ears
- ☐ B Ear defenders over your ears
- ☐ C Soft cloth pads over your ears
- ☐ D Rolled tissue paper in your ears
- ☐ E Cotton wool pads over your ears

**714** Noise levels may be a problem if you have to raise your voice to be heard by someone standing how far away?



**716** If you need to wear disposable foam earplugs, how should you insert them so they protect your hearing from damage?

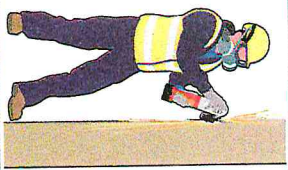


- ☐ A Do not roll or fold them, and insert them half way into your ear canal
- ☐ B Fold them in half, pull on your earlobe and wedge them half way into your ear canal
- ☐ C Soak them in water, squeeze them out and then insert them into your ear canal
- ☐ D Roll them up and insert them, while pulling the top of your ear up to open up the ear canal

**717** What **should** you do if you need to wear ear defenders but an ear pad is missing from one of the shells?

- ☐ A Put them on and work with them as they are
- ☐ B Do not work in noisy areas until they are replaced
- ☐ C Take an ear pad from another set of ear defenders
- ☐ D Leave them off and work without any hearing protection

**718** Using a grinder whilst wearing this personal protective equipment (PPE), **could** result in which of the following?



- ☐ A Lung disease
- ☐ B Weil's disease
- ☐ C Hearing damage
- ☐ D Eye injuries

**719** What **should** you do if someone near you is using noisy equipment and you have **no** hearing protection?



- ☐ A Speak to the other person's supervisor to stop them making the noise
- ☐ B Ask them to stop what they are doing, as it is disrupting other workers on site
- ☐ C Carry on with your work, as you are not the person using the noisy equipment
- ☐ D Leave the area until you have the correct personal protective equipment (PPE)

**720** How can you help reduce the risk of hand-arm vibration when using a vibrating tool?

- ☐ A Hold the tool more tightly
- ☐ B Use more force on the tool
- ☐ C Hold the tool at arm's length
- ☐ D Do not grip the tool too tightly

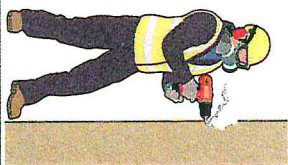
**721** How can the effects of hand-arm vibration be reduced if you are using vibrating tools?



- ☐ A Complete the job in one long burst
- ☐ B Only use one hand at a time on the tool
- ☐ C Do not smoke, as it affects blood circulation
- ☐ D Hold the tool as tightly as you can and work quickly



7.22 What risk does this worker face by using this tool on a regular basis?



- ☐ A Dermatitis from repetitive use
- ☐ B Weil's disease caused by the dust
- ☐ C Hand-arm vibration from prolonged use
- ☐ D Back injury caused by using heavy equipment

7.23 What do the initials HAVS stand for?



- ☐ A Hand-arm vibration syndrome
  - ☐ B Hand and ventilation system
  - ☐ C Heavy arm vibration system
  - ☐ D Heat and ventilation syndrome
- 7.24 Which two potential health issues are more likely when using a hammer drill for long periods of time?
- ☐ A Carpal tunnel syndrome
  - ☐ B Vibration white finger
  - ☐ C Hepatitis
  - ☐ D Head injuries
  - ☐ E Speech impairment

## 08 Health and welfare

- If you are under the influence of alcohol, drugs or prescribed medication, it can make you feel drowsy, slow your reaction times and affect your judgement. This will increase the risk of an accident at work.
- Long working hours or poorly designed shift work schedules can result in fatigue. If you are suffering from fatigue, you are more likely to have an accident at work.
- Fatigue can result in an increase in errors in the workplace.
- Stress is defined as the adverse reaction people have to excessive pressures or demands placed on them.
- Stress can affect anyone. A lack of concentration, anger and sleep problems are all warning signs.
- Stress at work can have a negative effect on your mental wellbeing.
- If you are concerned about a colleague's mental health, speak to them about it.
- Talking and listening to people, without judgement, can help to overcome negative attitudes to mental health in the workplace.
- If you feel that you are having mental health issues, you should ask for help as early as possible.
- Talking about mental health issues is a good way of helping to manage them.



*Talking about how you feel is not a sign of weakness*

- Exposure to ultraviolet radiation from the sun is one of the main causes of skin cancer in the construction industry.
- You are less likely to have an accident if your work area is clean and tidy.
- Adequate lighting and good housekeeping will reduce the risk of slips and trips.
- If the welfare facilities on site are not adequate or are dirty, report the issue to your supervisor.
- It is good practice to have access to a telephone and a means of raising the alarm if you are working alone.



**8.01** A worker is taking medication which **could** affect their health and safety in the workplace, and that of others. What **should** they do?

- ☐ A Tell their manager
- ☐ B Work harder on site
- ☐ C Go and see their doctor
- ☐ D Take regular breaks

**8.02** When an employee returns to work after an absence due to illness, what **should** they speak about with their employer?

- ☐ A The details of the illness to make sure no one else can catch it
- ☐ B The effects of medication they are taking which could affect safety at work
- ☐ C The number of times they have visited their doctor before returning to work
- ☐ D Any treatment costs they have to pay to help them get back to work

**8.03** What action **should** shift workers take at work if they are taking time-dependent medication, such as insulin?

- ☐ A Ask colleagues to help them remember when to take their medication
- ☐ B Consult their doctor and inform their manager to help plan how to accommodate this
- ☐ C Only work shifts after they have taken their required medication
- ☐ D Not tell their colleagues each time they need to take their medication during their shift

**8.04** How should absence records containing specific medical information relating to an employee be treated?

- ☐ A Confidentially, in accordance with data protection laws
- ☐ B As public information, in accordance with freedom of information
- ☐ C The records can be shared with the workforce as long as they do not say anything
- ☐ D Provided to the rest of the workforce to prevent others taking time off

**8.05** If your doctor has given you some medication, which of these questions is the **most** important to ask?

- ☐ A Will I fail a drugs test if my employer asks for one?
- ☐ B Will it cause me to oversleep and be late for work?
- ☐ C Will it make me unsafe to work or operate machinery?
- ☐ D Will it make me work more slowly and earn less money?

**8.06** If you suspect someone at work has been drinking alcohol, what **should** you do?

- ☐ A Ask them to stay away for an hour and then go back to work
- ☐ B Get them to drink plenty of strong coffee before they go back to work
- ☐ C Report the situation to your supervisor, as they may be unsafe to work
- ☐ D Get them to eat and drink something, wait 30 minutes and then go back to work

**8.07** What are the minimum facilities that must be provided on site for washing your hands?

- ☐ A A cold water standpipe and paper towels
- ☐ B A water container, bowl and paper towels
- ☐ C There is no need to provide washing facilities
- ☐ D Hot and cold water, soap and a way to dry your hands

**8.08** What are **two** ways of reducing the risk of transferring hazardous substances from your hands to your mouth?

- ☐ A Washing your hands before eating
- ☐ B Using barrier cream for working activities
- ☐ C Washing protective gloves before each use
- ☐ D Wearing protective gloves while you are working
- ☐ E Putting barrier cream on your hands before eating

**8.09** What **should** you use to clean very dirty hands?

- ☐ A Paraffin
- ☐ B Thinners
- ☐ C White spirit
- ☐ D Soap and water

**8.10** What should you do if there is nowhere on site to wash your hands?

- ☐ A Wait until you get home, then wash them
- ☐ B Go to the local public toilets and use their washbasin
- ☐ C Nothing, as the site does not have to provide washing facilities
- ☐ D Speak to your supervisor or the site manager about the problem

**8.11** Why should you **not** use white spirit or other solvents to clean your hands?

- ☐ A They could block the pores of the skin
- ☐ B They will remove several layers of skin
- ☐ C They could strip the protective oils from the skin
- ☐ D They could carry harmful bacteria that attack the skin

**8.12** What is the **main** issue with using barrier cream to protect your skin?

- ☐ A It is difficult to wash off
- ☐ B It costs too much to use every day
- ☐ C It can be broken down by some substances
- ☐ D It can irritate your skin and give you dermatitis



## OCCUPATIONAL HEALTH

8.13 When should you apply barrier cream to your skin?

- ☐ A Before you start work
- ☐ B When you finish work
- ☐ C As part of first-aid treatment
- ☐ D When you can't find your gloves

8.14 What can cause occupational dermatitis?

- ☐ A Using tools that vibrate
- ☐ B Working in the sun without sun cream
- ☐ C Contact with another person who has dermatitis
- ☐ D Contact with some strong chemicals or substances

8.15 What condition can be caused by direct sunlight on bare skin?

- ☐ A Acne
- ☐ B Rickets
- ☐ C Dermatitis
- ☐ D Skin cancer

8.16 To help protect outdoor workers from the risk of skin cancer from sun exposure, what should be worn?

- ☐ A Low factor tanning oil and short-sleeved shirts
- ☐ B High factor sunscreen and long-sleeved clothing
- ☐ C Extra moisturiser on the face and short-sleeved shirts
- ☐ D A small amount of deodorant and vest tops

8.17 Prolonged exposure to sunlight could cause what?

- ☐ A Hair loss
- ☐ B Burns
- ☐ C Abrasions
- ☐ D Dental issues

8.18 When referring to protection, what is a high UV rate cream designed to protect you from?

- ☐ A Dermatitis
- ☐ B Legionella
- ☐ C Sun burn
- ☐ D Abrasions

8.19 What is the most likely source of hepatitis in this image?



8.20 How does tetanus (an infection that you can catch from contaminated land or water) normally enter your body?

- ☐ A Through the pores in your skin
- ☐ B Through an open cut in your skin
- ☐ C Through your nose when you breathe
- ☐ D Through your mouth when you eat or drink

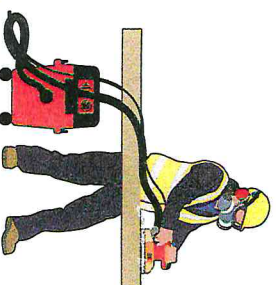
8.22 Reducing the risk of cuts and abrasions would require protection for what part of the body?

- ☐ A Bones
- ☐ B Blood
- ☐ C Hair
- ☐ D Skin

8.23 Which disease is most likely to be caught through cuts, grazes or puncture wounds?

- ☐ A Tetanus
- ☐ B Dermatitis
- ☐ C Legionella
- ☐ D Cancer

8.21 What is the main risk to this worker, wearing only these items of personal protective equipment (PPE)?








- ☐ A Damage to hearing
- ☐ B Eye injuries
- ☐ C Breathing in harmful dust
- ☐ D Cuts and abrasions to skin

## OCCUPATIONAL HEALTH







8.24 Select the **two** images in which the worker is correctly protecting themselves from possible cuts or abrasions.

You will be asked to 'drag and drop' your answers

- ☐ A  Carrying with no gloves
- ☐ B  Washing with no gloves
- ☐ C  Scraping with gloves
- ☐ D  Scrubbing with no gloves
- ☐ E  Painting with gloves

8.25 Which animal is the **most** likely carrier of Weil's disease (leptospirosis) on construction sites?

- ☐ A  Rabbits
- ☐ B  Rats
- ☐ C  Squirrels
- ☐ D  Cats

8.26 If your doctor says that you contracted Weil's disease (leptospirosis) on site, why do you need to tell your employer?

- ☐ A Your employer has to warn your colleagues not to go near you
- ☐ B It must be reported to the Health and Safety Executive (HSE)
- ☐ C The site on which you contracted it will have to be closed down
- ☐ D Your employer will need to call pest control to remove rats on site

8.27 In what situation are you **most** likely to catch Weil's disease (leptospirosis)?

- ☐ A If you drink water from a standpipe
- ☐ B If you work fixing showers or baths
- ☐ C If you work near air-conditioning units
- ☐ D If you work near wet ground, waterways or sewers

8.28 What other illness can be easily confused with the early signs of Weil's disease (leptospirosis)?

- ☐ A Diabetes
- ☐ B Hay fever
- ☐ C Dermatitis
- ☐ D Influenza (flu)

8.29 Fatigue could affect work rates of a worker. What does this mean?

- ☐ A They will be able to work faster as they will have lots of energy
- ☐ B They will work consistently as there are no issues
- ☐ C They will work at the same rate but will need monitoring
- ☐ D They will work more slowly, as they will feel tired

8.30 What type of work is **most** likely to result in fatigue?

- ☐ A New and challenging
- ☐ B Repetitive and monotonous
- ☐ C Exciting and enjoyable
- ☐ D Quiet and interesting

8.31 Being satisfied with your job can lead to what?

- ☐ A Feeling less stressed at work
- ☐ B Feeling unpopular at work
- ☐ C Feeling more stressed at work
- ☐ D Feeling less happy at work

8.32 Which **one** of the following is **most** likely to cause stress at work?

- ☐ A Job satisfaction but fear of redundancy
- ☐ B A lack of job security and fear of redundancy
- ☐ C Job security and a permanent contract
- ☐ D A lack of job security but a permanent contract

8.33 How can physical stress of a job be reduced?

- ☐ A Repetitive actions when working
- ☐ B Job rotation and task variation
- ☐ C Making equipment challenging to use
- ☐ D An increase in pay for the same job

8.34 If a worker is feeling symptoms or showing signs of stress at work, what **should** they do?

- ☐ A Speak to someone they trust, like a friend or someone independent
- ☐ B Arrive and start work at a later time
- ☐ C Tell the rest of the team about their problems
- ☐ D Eat or drink more during the day



8.35 Which statement about mental health is true?

- ☐ A It always has an obvious cause
- ☐ B It can have no obvious cause
- ☐ C It is always caused by stress
- ☐ D It is never caused by stress

8.36 Who has a duty to protect an individual from stress at work?

- ☐ A The union
- ☐ B The government
- ☐ C The local authority
- ☐ D The employer

8.37 What is the organisation 'The Samaritans'?

- ☐ A A charity that provides emotional support for people who are struggling to cope
- ☐ B A political party which supports looking after vulnerable people
- ☐ C A trade union organisation offering financial and legal support
- ☐ D A charity offering construction training to young vulnerable people

8.38 Loss of appetite, fatigue and tearfulness are common symptoms of what?

- ☐ A Mental health issues or stress
- ☐ B Hand arm vibration syndrome
- ☐ C Repetitive strain injury and back pain
- ☐ D Skin problems such as dermatitis

8.39 Which one of the following statements about mental health is true?

- ☐ A Mental and physical health are directly linked
- ☐ B Mental health is all about our intelligence
- ☐ C Mental health has to do with our general knowledge
- ☐ D Mental health is all about how we think and remember things

8.40 Which one of the following statements is true?

- ☐ A People experiencing mental health problems tend to be violent or dangerous
- ☐ B Mental health problems are common and can happen to anyone
- ☐ C Learning difficulties and mental health problems are the same
- ☐ D Mental health problems are rare among construction workers

8.41 Which one of the following is good advice for helping to cope with stress?

- ☐ A Get enough rest
- ☐ B Drink more alcohol
- ☐ C Work longer hours
- ☐ D Keep it to yourself

8.42 A worker is suffering stress caused by their line manager. What should they do?

- ☐ A Get another job that will be less demanding
- ☐ B Try to work faster to keep the manager happy
- ☐ C Find and follow the company procedures to address it
- ☐ D Complain to their manager

8.43 Which one of the following is true of the symptoms of stress?

- ☐ A They are the same for everybody
- ☐ B They can be different for each individual
- ☐ C They always develop very quickly
- ☐ D They always take a while to develop

8.44 MIND is a charity that does what?

- ☐ A Provides advice and support to empower anyone experiencing a mental health problem
- ☐ B Provides housing for retired construction workers
- ☐ C Represents people who are very intelligent and want to improve their IQ
- ☐ D Controls and monitors health and safety in the work place

8.45 What sort of rest area should your employer provide on site?

- ☐ A A canteen serving food, drinks and cold sandwiches
- ☐ B A covered area, chairs, and a way to boil water and heat food
- ☐ C A covered area with some comfortable chairs and running water
- ☐ D Employers don't have to provide rest areas, as long as rest breaks are provided

8.46 Which one of the following must be provided on site?

- ☐ A Snacks
- ☐ B Drinking water
- ☐ C Free transport home
- ☐ D Breakfast



8.47 Rest areas on site should be equipped with which of the following?

- ☐ A Settees and chairs
- ☐ B Televisions and tables
- ☐ C Seating and radio
- ☐ D Seating and tables

8.48 How can everyone on site help keep rats away?

- ☐ A Put rat traps and poison around the site
- ☐ B Ask the Local Authority to put down rat poison
- ☐ C Throw food scraps over the fence or hoarding
- ☐ D Put all food and drink rubbish into bins provided

8.49 Which of the following is true of clearing waste to maintain a tidy site?

- ☐ A Clearing waste should be carried out at the end of a shift
- ☐ B Construction workers are not responsible for clearing waste
- ☐ C Construction sites are dirty anyway and do not need clearing
- ☐ D Clearing waste should be a continuous process

8.50 When absorption granules from a spill kit have been used on oil, what action should be taken?

- ☐ A Clear them up and place them in a sealed waste bag ready for specialist disposal
- ☐ B Leave them on the oil for a few days before clearing into the general waste
- ☐ C Clear them up straight away and put them into a general waste skip
- ☐ D Use water to help clean up excess oil before specialist disposal

8.51 When should an oil spill be cleaned up?

- ☐ A At the end of the shift
- ☐ B When it has dried
- ☐ C Never - it will be absorbed into the ground
- ☐ D Immediately - it could cause someone to slip

8.52 What is the most important reason for keeping your work area clean and tidy?

- ☐ A To help prevent slips, trips and falls
- ☐ B To recycle waste and help the environment
- ☐ C So that waste skips can be emptied more often
- ☐ D It saves time cleaning up at the end of the week

8.53 A worker creates offcuts on site. Who is responsible for clearing them away?

- ☐ A The worker
- ☐ B The supervisor
- ☐ C The site manager
- ☐ D The foreman

8.54 The ground has become muddy on site. What could be done to prevent the ground becoming slippery?

- ☐ A Treat the surface with salt
- ☐ B Treat the surface with gravel
- ☐ C Improve lighting
- ☐ D Improve signage

8.55 A work task results in cables from power tools running across a walkway. What action should be taken?

- ☐ A While working, look out for anyone approaching to warn them
- ☐ B Think about cancelling the job because it is too dangerous
- ☐ C Consider using cordless tools, or running the cables at high level
- ☐ D Put up signs that the fire escape is out of order temporarily

8.56 Fatigue may be a result of what?

- ☐ A Good work/life balance
- ☐ B Good sleeping patterns
- ☐ C A healthy diet
- ☐ D Working long hours

8.57 What would be a good way of reducing fatigue in the workforce?

- ☐ A Regular start and finish times
- ☐ B Early start times and a late finish
- ☐ C Rotating shift patterns
- ☐ D Random start and finish times

8.58 What can help to reduce fatigue?

- ☐ A Going to the gym less
- ☐ B Taking regular breaks at work
- ☐ C Drinking alcohol after work
- ☐ D Eating larger meals during break times



8.59 If a worker is feeling stressed, when is the best time for them to address the issue?

- ☐ A When they have finished work and they are away from the workplace
- ☐ B As soon as they realise they have symptoms of stress
- ☐ C Only after the stress level gets so bad it causes an accident
- ☐ D In about six months, if the issue is still causing them stress

8.60 What is the best way for a worker to avoid becoming stressed because of an overload of work?

- ☐ A Speak openly and regularly with their manager or employer about workloads
- ☐ B Put up with the extra work but make sure overtime is paid
- ☐ C Only do what is manageable because someone else will pick up the extra
- ☐ D Make sure they take medication before going to work

8.61 What is one sign that employees are feeling stressed at work?

- ☐ A Increased productivity on site
- ☐ B Fewer accidents on site
- ☐ C Long-term staff retention rates
- ☐ D High staff turnover rates

8.62 Which of the following can be an indicator of stress?

- ☐ A Inability to deal with usual workload
- ☐ B Increased productivity
- ☐ C Feeling valued at work
- ☐ D Feelings of confidence at work

8.63 Which of the following are common mental health issues?

- ☐ A Paralysis and hellsitis
- ☐ B Hand arm vibration syndrome
- ☐ C Depression and anxiety
- ☐ D Dermatitis, skin irritation

8.64 If a worker confides in a colleague that they have suffered from a mental health issue, what should the colleague do?

- ☐ A Let other colleagues know, so they can avoid working with them
- ☐ B Treat them as they would any other work colleague
- ☐ C Inform the site supervisor and first aider
- ☐ D Do their work for them because they might not be able to cope

8.65 When might people suffering with mental health issues need help at work?

- ☐ A When their site supervisor or manager says so
- ☐ B They will regularly need help to avoid them having a panic attack
- ☐ C Up to once a week to take some of the strain off them
- ☐ D As and when a situation arises in which help is needed

8.66 Lone workers are most a risk from what?

- ☐ A Violence
- ☐ B Paranoia
- ☐ C Sleeplessness
- ☐ D Humiliation

8.67 Who should drive company vehicles?

- ☐ A Anyone with a learner driver permit
- ☐ B Any employee who is competent and authorised
- ☐ C Any construction site manager or supervisor
- ☐ D Any junior apprentice workers

8.68 A worker with a full UK driving licence has been asked to move a machine they have never been trained on. What should the worker do?

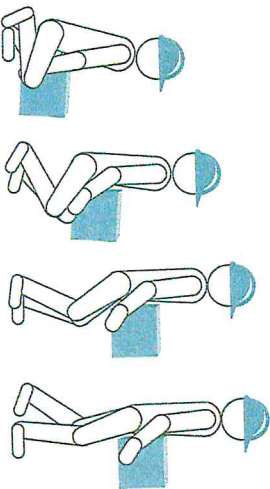
- ☐ A They can move the machine as they have a full UK driver's licence
- ☐ B Move the machine as long as there is no one else near it
- ☐ C Explain that they are not trained and competent to move it
- ☐ D Move the machine as long as there is a vehicle marshaller



## OCCUPATIONAL HEALTH

### 09 Manual handling

- Using a wheelbarrow or other lifting aids to move heavy loads is classed as manual handling but they help to reduce the risk of personal injury.
- Workers should be trained in safe lifting techniques before manual handling or lifting.
- Adopting safe manual handling techniques will help to protect your back and reduce the risk of injury in the workplace.
- The manual handling acronym T.I.L.L.E. stands for Task, Individual, Load, Environment.



Good practice method for kinetic lifting

**9.01** Your new job involves some manual handling but an old injury means that you have a weak back. What should you do?

- ☐ A Tell your supervisor you can lift anything on site
- ☐ B Tell your supervisor that lifting might be a problem
- ☐ C Try some lifting then tell your supervisor about your back
- ☐ D Tell your supervisor about your back if it gets injured again

**9.02** You have to move a load that might be too heavy for you. You cannot divide it into smaller parts and there is no-one to help you. What should you do?

- ☐ A Try to lift it using the correct lifting methods
- ☐ B Lift and move the load quickly to avoid injury
- ☐ C Do not move the load until you have a safe way of doing it
- ☐ D Get a forklift truck, even though you have not been trained to use it

**9.03** You need to lift a load that is not heavy, but it is so big that you cannot see in front of you. What **should** you do?

- ☐ A Get someone to walk next to you and give directions
- ☐ B Ask someone to help carry the load so that you can both see ahead
- ☐ C Get someone to walk in front of you and tell others to get out of the way
- ☐ D Move the load on your own. It is so large that anyone in your way is sure to see it

**9.04** What **should** you do if you need to carry a load down a steep slope?

- ☐ A Carry the load on your shoulder
- ☐ B Assess whether you can still carry the load safely
- ☐ C Walk backwards down the slope to help you balance
- ☐ D Put the load down and let gravity move it down the slope

**9.05** What are **two** risks of carrying a load in cold, damp conditions?

- ☐ A The load will be easier to carry
- ☐ B The route you take could be slippery
- ☐ C You will need to work more quickly to warm up
- ☐ D The load will feel lighter due to the cold conditions
- ☐ E Your ability to carry the load safely will be reduced

**9.06** What **should** you do if you have been told how to lift a heavy load but you think there is a better way to do it?

- ☐ A Discuss your idea with your supervisor before lifting
- ☐ B Ignore what you have been told and do it your way
- ☐ C Forget your idea and do it the way you have been told
- ☐ D Ask your workmates to decide which way you should do it

**9.07** What does it mean if you have to twist or turn your body when you lift and place a load?

- ☐ A You must wear a back brace in this situation
- ☐ B You will be able to lift the same weight as usual
- ☐ C The weight you can lift safely will be less than usual
- ☐ D The weight you can lift safely will be more than usual

**9.08** If you need to reach above your head to place a load or lower a load to the floor, which of these is **not** true?

- ☐ A The load will be more difficult to control
- ☐ B You can safely handle more weight than usual
- ☐ C It will be more difficult to keep your back straight
- ☐ D You will put extra stress on your arms and your back

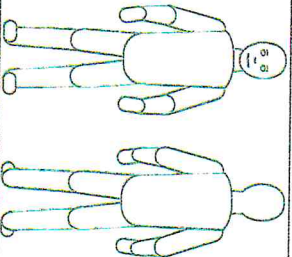
## OCCUPATIONAL HEALTH



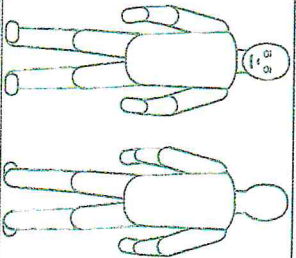
**9.09** If you have to move a load while you are sitting down, how much can you lift safely?

- ☐ A The usual amount
- ☐ B Twice the usual amount
- ☐ C Less than the usual amount
- ☐ D Three times the usual amount

**9.10** Which part of the body is most likely to be injured when lifting heavy loads?



**9.11** Which part of the body is most likely to be injured when lifting heavy loads?



**9.12** What is the outcome of wearing a back support belt when lifting?

- ☐ A You can safely lift more than usual
- ☐ B You could face the same risk of injury
- ☐ C You can lift any load without being injured
- ☐ D You will crush your backbone and damage it

**9.13** Which three of the following factors must you think about to lift a load safely?



You will be asked to 'drag and drop' your answers

- ☐ A Its weight
- ☐ B Its size and shape
- ☐ C What the value of it is
- ☐ D How to grip or hold it firmly
- ☐ E Whether the contents are insured

**9.14** What **two** things are important for the use of manual handling lifting aids?



You will be asked to 'drag and drop' your answers

- ☐ A The user must hold a CSCS card
- ☐ B The lifting aid can only be used outside
- ☐ C The lifting aid must be designed for the task
- ☐ D Lifting aids must not be more than six months old
- ☐ E Users must be trained in the correct use of the lifting aid

**9.15** You need to move a load that might be too heavy for you. What **three** methods could you use?

You will be asked to 'drag and drop' your answers

- ☐ A Ask someone to help you
- ☐ B Drag the load to avoid lifting it
- ☐ C Use an aid, such as a trolley or wheelbarrow
- ☐ D Divide the load into smaller loads if possible
- ☐ E Test the load's weight by picking it up for a short time

**9.16** What **must** all workers do under the regulations for manual handling?



**9.17** If you need to move a load that is heavier on one side than the other, how should you pick it up?



- ☐ A Follow their employer's safe systems of work
- ☐ B Wear back-support belts when lifting things at work
- ☐ C Make a list of all the heavy things they have to carry
- ☐ D Lift any size of load once the risk assessment has been done
- ☐ A With the heavy side towards you
- ☐ B With the heavy side away from you
- ☐ C With the heavy side on your weak arm
- ☐ D With the heavy side on your strong arm



9.18 Which of the following is the best method to help minimise the risk of injury when moving loads on site?

- ☐ Ask a trained person to carry the load
- ☐ Use lifting aids wherever possible on site
- ☐ Make the area flatter before performing the task
- ☐ Remove all awkward shaped loads from the site

9.19 A wheel comes off a trolley you are using to move a heavy load a long distance. What should you do?

- ☐ Carry the load for the rest of the journey
- ☐ Drag the trolley on your own for the rest of the journey
- ☐ Find another way to move the load and complete the journey
- ☐ Ask someone to help you pull the trolley for the rest of the journey

9.20 Who should be involved in planning the safe system of work for your manual handling?

- ☐ You and your colleagues
- ☐ Your supervisor or employer
- ☐ You and your supervisor or employer
- ☐ The Health and Safety Executive (HSE)

9.21 If you are required to lift a heavy load, what must your employer do?

- ☐ Watch you while you lift the load
- ☐ Complete a risk assessment of the task
- ☐ Nothing. Lifting loads is a part of your job
- ☐ Make sure that a supervisor is there to advise while you lift

9.22 Which one of the following could cause back and musculoskeletal problems for a worker?

- ☐ Positioning materials away from the work area
- ☐ Good planning to reduce lifting heavy loads
- ☐ Reducing the maximum lifting weight
- ☐ Using machines for lifting operations whenever possible

## Safety

10	Safety signs	78
11	Fire prevention and control	81
12	Electrical safety, tools and equipment	86



## SAFETY

### 10 Safety signs

- Prohibition signs – must not do – red and white



No access for pedestrians

No admittance - Authorized personnel only

No mobile phones

No naked flames

No smoking

Not drinkable

Do not touch

- Mandatory signs – must do – blue and white



Safety gloves must be worn

Safety boots or shoes must be worn

Safety harness must be worn

Safety helmet must be worn

Protective eyewear must be worn

Hearing protection must be worn

General mandatory sign

- Warning signs – yellow and black



Slippery surface

Toxic material

Trip hazard

Combustible or flammable material

Corrosive material

High voltage

Industrial vehicles operating

Radioactive material

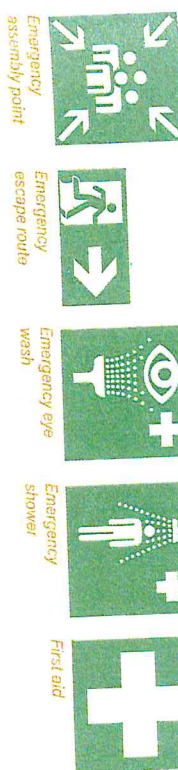


Explosive material

General warning sign

Overhead load

- Safe condition signs – green and white



Emergency assembly point

Emergency escape route

Emergency eye wash

Emergency shower

First aid

- Fire-fighting signs



Fire emergency telephone

Fire extinguisher

Fire lighting equipment

Fire hose reel

Fire ladder

Fire alarm call point

- Globally harmonised pictograms are used to help identify hazardous substances



Flammable gases

Harmful - skin, eye or respiratory irritation

Corrosive

Oxidising gases, liquids and solids

Damage to organs

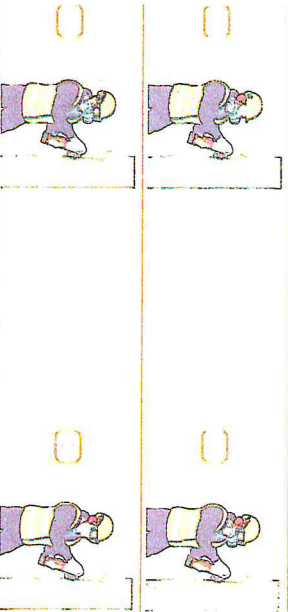
Heating may cause an explosion

Corrosive

Hazardous to the environment and aquatic life



10.01 Which image shows the worker correctly following these site safety signs?



10.02 Which **three** of the following should be labelled with this sign?



You will be asked to 'drag and drop' your answers

<input type="checkbox"/>	Raw asbestos
<input type="checkbox"/>	Asbestos waste
<input type="checkbox"/>	Recyclable waste
<input type="checkbox"/>	Plasterboard waste
<input type="checkbox"/>	Any product containing asbestos

10.03



How should a container, or any residue, be disposed of if it has this sign on the label or packaging?

<input type="checkbox"/>	Put it in any type of skip or bin
<input type="checkbox"/>	Leave it somewhere for other people to deal with
<input type="checkbox"/>	If it is a liquid and less than one litre you can pour it down a drain
<input type="checkbox"/>	Follow specific instructions on the label and in the work instructions

## Fire prevention and control

- Emergency procedures should be in place before any work begins, explained in the site induction and not changed without notice.
- Everyone on site should be aware of the emergency procedures, as these help to control dangerous situations.
- Emergency escape routes should be kept clear and unobstructed at all times.
- A fire assembly point is where people must go when the fire alarm sounds.
- Hot-work permits authorise tasks to be carried out safely, under strictly controlled conditions.
- Hot-work permits allow workers to carry out work that could start a fire, such as cutting steel with an angle grinder or soldering pipework in a central heating system.
- Liquefied petroleum gas (LPG) is colourless, has a distinctive smell and is highly flammable.
- A leaking LPG cylinder can catch fire at some distance from the original leak and flash back to the source.
- If a cylinder of LPG is leaking, turn the supply off immediately, if it is safe to do so.
- Fuel should always be dispensed using the correct nozzle and stored in the designated fuel store when not being used.
- Refuelling should only be carried out by authorised people, when the equipment is turned off and cooled down for safety.

10.04



What are **three** common fire risks on construction sites?

You will be asked to 'drag and drop' your answers

<input type="checkbox"/>	Timber racks
<input type="checkbox"/>	230 volt power tools
<input type="checkbox"/>	Uncontrolled hot works
<input type="checkbox"/>	110 volt extension reels
<input type="checkbox"/>	Poor housekeeping and build up of waste



11.02 In addition to heat, what are the other **two** factors that **must** be present to start a fire?



You will be asked to 'drag and drop' your answers

- ☐ A Nitrogen
- ☐ B Carbon dioxide
- ☐ C Argon
- ☐ D Oxygen
- ☐ E Fuel

Heat



11.03 What **must** be checked before working in a corridor that is a fire escape route?

11.05 A large fire has been reported. You have **not** been trained to use fire extinguishers. What **should** you do?

- ☐ A If the tools being used are spark-proof
- ☐ B If the doors into the corridor are locked
- ☐ C That any tools and equipment do not block the route
- ☐ D That fire escape signs are removed before the work starts

- ☐ A Leave work for the day
- ☐ B Go straight to the assembly point
- ☐ C Report to the site office and then go home
- ☐ D Put all of your tools away and then go to the assembly point

11.04 If you discover a fire, what is the **first** thing that you should do?

- ☐ A Raise the alarm
- ☐ B Put your tools away
- ☐ C Try to put out the fire
- ☐ D Finish what you are doing

11.06 Which emergency procedures should be explained in the site induction? Give **three** answers



You will be asked to 'drag and drop' your answers

- ☐ A How to raise the alarm in case of an emergency
- ☐ B Where to go if the fire alarm is activated
- ☐ C Where to go to leave valuables in an emergency
- ☐ D What to do if someone is injured on site
- ☐ E How to avoid leaving site in case it's a false alarm

11.07 If a fire occurs, how **should** you interact with the designated fire warden?

11.08 What additional rules might a person working alone be asked to follow?

- ☐ A Follow the instructions given by the fire warden
- ☐ B Ignore the fire warden and follow your colleagues
- ☐ C Follow the site manager as they will know their way around the site
- ☐ D Ignore the fire warden and the site manager

- ☐ A Carry two sets of personal protective equipment (PPE)
- ☐ B Complete an additional time sheet
- ☐ C Never speak to the general public
- ☐ D Make regular radio or mobile phone contact

11.09 If your job needs a hot-work permit, what **two** things would you expect to have to do?



You will be asked to 'drag and drop' your answers

- ☐ A Write a site evacuation plan
- ☐ B Know how to refill fire extinguishers
- ☐ C Check for signs of fire when you stop work
- ☐ D Have a fire extinguisher close to the work
- ☐ E Know where all the fire extinguishers are kept on site



## SAFETY

**11.10** You are about to start a job. How will you know if you need a permit to work?

**A** The Health and Safety Executive (HSE) will give them out

**B** Permits to work are only required by managers on large sites

**C** Information will be given during the site induction before any work starts

**D** Other workers on site will pass them on after they have finished with them

**11.11** What does it mean if there is frost around the valve on a liquefied petroleum gas (LPG) cylinder?

**A** The cylinder is full

**B** The valve is leaking

**C** The cylinder is nearly empty

**D** You must lay the cylinder on its side

**11.12** Which **two** extinguishers should **not** be used on electrical fires?

**A** Dry powder (blue colour band)

**B** Foam (cream colour band)

**C** Water (red colour band)

**D** Carbon dioxide (black colour band)

**11.13** Match the fire extinguisher with the described contents



You will be asked to 'drag and drop' your answers

Water - for use on wood, paper, textile and solid material fires

Powder - for use on liquid and electrical fires

Foam - for use on liquid fires

Carbon Dioxide (CO<sub>2</sub>) - for use on liquid and electrical fires

**11.14** What is the **primary** purpose of fire extinguishers?

**A** To tackle small fires to prevent them becoming larger

**B** To be available and ready for when the fire services arrive

**C** To make sure the premises pass a safety inspection

**D** To add decoration to the walls of the construction site

**11.15** A worker needs to use a flammable liquid. How much **should** be taken from the store?

**A** Enough to carry out the immediate activity

**B** No more than the manual handling rules allow

**C** Enough to last a month, but inform the site manager

**D** Enough to last a week to save time going to the store

**11.16** You see a driver refuelling an excavator but most of the diesel is spilling onto the ground. What is the **first** thing that you should do?

**A** Tell the driver immediately and locate the spill kit

**B** Tell your supervisor the next time that you see them

**C** Look around for a spill kit and then tell your supervisor

**D** Do nothing. The diesel will eventually seep into the ground

**11.17** A worker spills a large quantity of petrol on their clothes when refuelling a piece of equipment. What **should** they do?

**A** Put some other clothes on top

**B** Change their clothes immediately

**C** Nothing - it will evaporate quickly

**D** Wipe it off with a cloth

**11.18** A worker spills a large quantity of petrol when refuelling a dumper. What **should** they do?

**A** Stop - Notify - Contain

**B** Stop - Contain - Notify

**C** Contain - Stop - Notify

**D** Notify - Contain - Stop

## SAFETY



## 12 Electrical safety, tools and equipment

- Workers must be trained and competent before operating power tools.
- Cartridge-operated tools operate like a gun and can be dangerous in inexperienced hands.
- The main function of guards on cutting and grinding machines is to stop fragments flying into the air and to prevent the operator coming into contact with the blade or wheel.
- The recommended maximum voltage for construction sites is 110 volt with a yellow connector.
- Residual current devices (RCDs) should be fitted between the plug of a 230 volt tool and the supply socket.
- RCDs work by cutting the power quickly if there is a fault, and they should be mechanical (trip) tested before each use.

**12.01** You need to work near an electric cable but the cable has bare wires. What **should** you do?

**A** Quickly touch the cable to see if it is live

**B** Tell your supervisor and keep well away from the cable

**C** Push the cable out of the way so that you can start work

**D** Check there are no sparks coming from the cable and then start work

**12.02** You are using a generator to power some lighting when a lamp blows. You have a spare lamp. What **should** you do?

**A** Carry on working in the dark

**B** Replace the lamp without disconnecting the generator

**C** Wait for a fully qualified electrician with a NICEIC card

**D** Disconnect the lighting from the generator before replacing the lamp

**12.03** What are the **two** main visual inspections you should carry out before using a power tool?

You will be asked to 'drag and drop' your answers

**A** Make sure the carry case isn't broken

**B** Check it is marked with a security stamp

**C** Make sure the manufacturer's label hasn't come off

**D** Check the power lead, plug and casing are in good condition

**E** Check switches, triggers and make sure the guards are adjusted and work correctly

**12.04** What is **best** practice when using a power tool with a rotating blade?

**A** Adjust the guard to expose the maximum amount of blade

**B** Remove the guard so that you can clearly see the blade

**C** Remove the guard but wear leather gloves to protect your hands

**D** Adjust the guard to expose just enough blade to let you do the job

**12.05** What **should** be done before adjusting an electric hand tool?

**A** Switch it off but leave the plug in the socket

**B** Put tape over the power switch before adjusting

**C** Switch it off and remove the plug from the socket

**D** You should never adjust an electric hand tool yourself

**12.06** You have been asked to use a hand tool or power tool on site. You know that it is the right tool for the job. What else **must** you check?

**A** That it was made in the UK

**B** That it is inspected before you use it

**C** That it is inspected at the start of each week

**D** That it was bought from a builders' merchant

**12.07** Why is it considered poor practice to store batteries loose in a tool bag?

**A** You might forget to charge them

**B** If the terminals short out, they could cause a fire

**C** They give off a poisonous gas in a confined space

**D** The tool bag will be heavy and could damage your back

**12.08** When is it safe to work close to an overhead power line?

**A** If the power is switched off

**B** If you use a wooden ladder for access

**C** If it is not raining whilst you are working

**D** If you do not touch the line for more than 30 seconds

**12.09** What **should** you do if the guard is missing from a power tool?

**A** Try to make another guard

**B** Use the tool but try to work quickly

**C** Use the tool but work carefully and slowly

**D** Do not use the tool until a proper guard has been fitted



**12.10** What **should** you do if the electrical equipment you are using cuts out?

- ☐ A Shake it to see if it will start again
- ☐ B Pull the electric cable to see if it is loose
- ☐ C Switch the power off and on a few times
- ☐ D Switch off the power and look for signs of damage

**12.11** Why should a residual current device (RCD) be used with 230 volt tools?

- ☐ A It saves energy and lowers costs
- ☐ B It lowers the voltage automatically
- ☐ C It makes the tool run at a safe speed
- ☐ D It quickly cuts off the power if there is a fault

**12.12** Which method is used to check if a residual current device (RCD) connected to a power tool is working?

- ☐ A Switch the tool on and off
- ☐ B Press the test button on the RCD
- ☐ C Use a hand-held RCD test meter
- ☐ D Run the tool at top speed to see if it cuts out

**12.13** You need to use a 230 volt item of equipment. How **should** you protect yourself from an electric shock?

- ☐ A Wear rubber boots and gloves
- ☐ B Put up safety screens around you
- ☐ C Use a generator which has been serviced
- ☐ D Use a portable residual current device (RCD)

**12.14** Why are battery-powered tools preferred over 110 volt tools in a construction environment?

- ☐ A They are cheaper to run
- ☐ B They are quieter
- ☐ C They are more powerful
- ☐ D They are safer

**12.15** What is the **main** advantage of using battery-powered tools rather than electrical ones?

- ☐ A They are cheaper to run
- ☐ B They will not give you hand-arm vibration
- ☐ C They do not need to be tested or serviced
- ☐ D They will not give you a serious electric shock

**12.16** Why do building sites use a 110 volt electricity supply instead of a 230 volt supply?

- ☐ A It is cheaper
- ☐ B It is less likely to kill you
- ☐ C It is safer for the environment
- ☐ D It moves faster along the cables

**12.17** What **two** things should you do to reduce trips and injuries caused by untidy leads and extension cables?

You will be asked to 'drag and drop' your answers

- ☐ A Only use the thinner 230 volt extension cables
- ☐ B Keep trailing cables and leads close to the wall
- ☐ C Make sure your cables have not been used before
- ☐ D Tie any excess cables and leads up into the smallest coil possible
- ☐ E Run cables and leads above head height and over the top of doorways and walkways

**12.18** What **two** things should you do if you need to run an electrical cable across an area used by vehicles?

You will be asked to 'drag and drop' your answers

- ☐ A Run the cable at head height
- ☐ B Cover the cable with a protective ramp
- ☐ C Cover the cable with scaffold boards
- ☐ D Put up a sign that says 'ramp ahead'
- ☐ E Wrap the cable in yellow tape so that drivers can see it



12.19 What **two** things should you do if you need to use an extension cable?



You will be asked to 'drag and drop' your answers

- ☐ A Uncoil the whole cable
- ☐ B Clean the cable with a damp cloth
- ☐ C Only uncoil the length of cable you need
- ☐ D Check the whole cable and connectors for damage
- ☐ E Only check the part of the cable you need for damage

12.20 What is the **best** way to protect an extension cable and also reduce trip hazards?



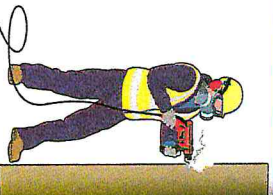
- ☐ A Cover the cable with yellow tape
- ☐ B Run the cable above head height
- ☐ C Run the cable by the shortest route
- ☐ D Cover the cable with pieces of wood

12.21 What **should** you do if an extension cable has a cut in its outer cover?



- ☐ A Put a bigger fuse in the cable plug
- ☐ B Put electrical tape around the damaged part
- ☐ C Report the fault and make sure that no one else uses the cable
- ☐ D Check the copper wires aren't showing in the cut and then use the cable

12.22 Apart from dust, vibration, noise and flying fragments, identify another significant hazard in this image



12.23 What **should** you do if the head on your hammer comes loose?



- ☐ A Stop work and get the hammer repaired or replaced
- ☐ B Find another heavy tool to use instead of the hammer
- ☐ C Tell the other people near you to keep out of the way
- ☐ D Keep using it but be aware that the head could come off at any time

12.24 Which item of equipment would **not** require portable appliance testing (PAT)?



- ☐ A 110 volt transformer
- ☐ B Hammer and bolster
- ☐ C 110 volt extension lead
- ☐ D Plug-in breaker

12.25 Do simple hand tools like trowels, screwdrivers, saws and hammers need to be inspected?



- ☐ A No, it is not necessary to check such tools
- ☐ B Only if someone else has borrowed the tools
- ☐ C Yes, the tools should be checked each time they are used
- ☐ D Only if the tools have not been used for a few weeks

12.26 What is the **main** danger of using a chisel or bolster with a mushroomed head?



- ☐ A It will shatter and send fragments flying into the air
- ☐ B You are more likely to hit your hand with the chisel head
- ☐ C The hammer could slip off the head of the bolster or chisel
- ☐ D The shaft of the chisel will bend, putting a strain on your wrist

12.27 When do you need to check tools and equipment for damage?



- ☐ A Every day
- ☐ B Once a week
- ☐ C At least once a year
- ☐ D Each time before use

12.28 If a power tool has a portable appliance testing (PAT) label on it, what information should be included on the label?



- ☐ A When the tool was made
- ☐ B When the tool was last tested
- ☐ C The tool's earth-loop impedance
- ☐ D Who tested the tool before it left the factory

12.29 Which item of equipment would **not** require portable appliance testing (PAT)?



- ☐ A 110 volt transformer
- ☐ B Battery-powered rechargeable drill
- ☐ C 110 volt extension lead
- ☐ D Plug in portable halogen light





12.30 You have been asked to dig to expose power cables. You have been given a cable avoidance tool (CAT) to detect them but you haven't been shown how to use it. What **should** you do?

- ☐ Read the manual before you start work
- ☐ Ask a colleague to show you how to use it
- ☐ Tell your supervisor that you haven't been trained
- ☐ Dig the hole without using the cable avoidance tool



12.33 What does it mean if the equipment you are using is issued with a prohibition notice?

- ☐ You must not use it until it is made safe
- ☐ You can use it as long as you take more care
- ☐ Only supervisors can use it until further notice
- ☐ You must not use it unless your supervisor is present



12.31 You need to use an air-powered tool. What **three** hazards are likely to affect you?

You will be asked to 'drag and drop' your answers

- ☐ Radiation
- ☐ Being struck by a poorly secured hose
- ☐ An electric shock
- ☐ Hand-arm vibration
- ☐ Airborne dust and flying fragments

12.32 If someone near you is using a petrol cut-off saw (disc cutter) to cut concrete blocks, what **three** immediate hazards are likely to affect you?

You will be asked to 'drag and drop' your answers

- ☐ Flying fragments
- ☐ Contact dermatitis
- ☐ Harmful dust in the air
- ☐ High noise levels
- ☐ Vibration white finger



12.34 Which **two** of the following statements about power tools are **true**?

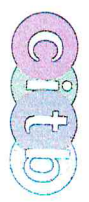
- ☐ You should always carry the tool by its cord
- ☐ A power tool should be unplugged by pulling its cord
- ☐ You must be trained and competent to use any power tool
- ☐ You should always unplug the tool when you are not using it
- ☐ Power tools should always be left plugged in when you check or adjust them



12.35 Why is it dangerous to run an abrasive wheel faster than its recommended **maximum** speed?

- ☐ The safety guard cannot be used
- ☐ The motor could burst into flames
- ☐ The wheel will get clogged and stop
- ☐ The wheel could shatter into many pieces





CONTENTS



# High risk activities

13	Site transport and lifting operations	96
14	Working at height	103
15	Excavations and confined spaces	115
16	Hazardous substances	119



## HIGH RISK ACTIVITIES

### 13 Site transport and lifting operations

- People being struck by moving plant is one of the most common causes of injury and death on construction sites.
- Well organised sites will have segregated vehicle and pedestrian routes.
- Vehicle marshals should be used to control, and ensure, safe vehicle movements on site.
- You must be trained, competent and authorised to operate or signal plant on any site.
- Loading and storage areas on site should be located away from main pedestrian routes.
- Poor ground conditions, excessive speed and poorly distributed loads will increase the risk of a vehicle overturning.
- One of the most common accidents involving dumpers is overturning.
- You should be provided with information about site traffic rules in your site induction.

**13.01** You are walking on site and a large, mobile crane reverses across your path. What **should** you do?

- ☐ A Help the driver to reverse
- ☐ B Pass close to the front of the crane
- ☐ C Wait or find another way around the crane
- ☐ D Start to run so that you can pass behind the reversing crane

**13.02** What **should** you do if you need to walk past someone operating a mobile crane?

- ☐ A Run to get past the crane quickly
- ☐ B Try to catch the attention of the crane operator
- ☐ C Take another route so that you stay clear of the crane
- ☐ D Guess what the crane operator will do next and squeeze past

**13.03** When is a site vehicle **most** likely to injure pedestrians?

- ☐ A When it is reversing
- ☐ B While digging out footings
- ☐ C While tipping into an excavation
- ☐ D As it is lifting materials onto scaffolds

**13.04** Why should you **not** walk behind a lorry when it is reversing?

- ☐ A Most lorries are not fitted with mirrors
- ☐ B The driver is unlikely to know you are there
- ☐ C Most lorry drivers aren't very good at reversing
- ☐ D You will need to run, not walk, to get past it in time

**13.05** The quickest way to your work area is through a contractor's vehicle compound. Which way **should** you go?

- ☐ A Around the compound every time
- ☐ B Around the compound if vehicles are moving
- ☐ C Straight through the compound if no-one is looking
- ☐ D Straight through the compound if no vehicles appear to be moving

**13.06** When is site transport allowed to drive along a pedestrian route?

- ☐ A During meal breaks
- ☐ B If it is the shortest route available
- ☐ C Only if the vehicle has a flashing yellow light
- ☐ D Only if necessary and if all pedestrians are excluded

**13.07** When you walk across the site, what is the **best** way to avoid an accident with mobile plant?

- ☐ A Ride on the plant
- ☐ B Wear hi-vis clothing
- ☐ C Keep to the designated pedestrian routes
- ☐ D Get the attention of the driver before you get too close

**13.08** You need to walk past a 360° mobile crane. The crane is operating near a wall. What is the **main** danger?

- ☐ A The crane could crash into the wall
- ☐ B You could get whole-body vibration from the crane
- ☐ C You could be crushed if you walk between the crane and the wall
- ☐ D Your hearing could be damaged by high noise levels from the crane

**13.09** A forklift truck is blocking the route you need to take on site. It is lifting materials onto a scaffold. What **should** you do?

- ☐ A Start to run so that you are not under the load for very long
- ☐ B Wait or take another route, but never walk under a raised load
- ☐ C Catch the driver's attention and then walk under the raised load
- ☐ D Only walk under the raised load if you are wearing a safety helmet

**13.10** Which action **should** a worker take if they see mobile plant using a route intended only for pedestrians?

- ☐ A Nothing, the driver will know what they are doing
- ☐ B Report this to their supervisor
- ☐ C Have a word with the operator at the end of the day
- ☐ D Just be careful in that area

## HIGH RISK ACTIVITIES







## HIGH RISK ACTIVITIES

**13.11** Workers are on foot close to moving plant. Which **one** of the following is **true**?

- ☐ A Hi-vis clothing will keep the workers safe if the plant is not reversing
- ☐ B The operator will see the workers, because they have mirrors and CCTV
- ☐ C The workers should stay within the designated pedestrian routes
- ☐ D The workers will be safe if they are in a group

**13.12** Which of the following signs means **No pedestrian access**?

- ☐ A 
- ☐ B 
- ☐ C 
- ☐ D 

**13.13** In which one of the following situations is it **safer** for a worker to speak to someone operating mobile plant?

- ☐ A The operator knows the worker is there and the plant has stopped operating
- ☐ B The worker is wearing hi-vis and the plant is moving slowly
- ☐ C The operator can hear the worker and it is daytime
- ☐ D The worker is wearing PPE and the plant is moving slowly

**13.14** What **should** you do if you see a dumper being driven too fast?

- ☐ A Report it to the police
- ☐ B Keep out of its way and report it
- ☐ C Try to catch the dumper and speak to the driver
- ☐ D Nothing, as dumpers are allowed to speed

**13.15** What is the **main** hazard associated with the movement of plant and machinery around site?

- ☐ A Pedestrians walking too close to moving machinery and being crushed
- ☐ B Existing building collapse from vibrations of the moving machinery
- ☐ C Members of the public being poisoned by the exhaust fumes
- ☐ D Drivers getting motion sickness from the movement of the machine

**13.16** What is the meaning of this sign?

- ☐ A Pedestrian walkway only
- ☐ B No pedestrian access
- ☐ C Traffic approaching from each direction
- ☐ D Go slow

**13.17** When moving plant or machinery around site, what should the operator look out for?

- ☐ A Driving with the hand-brake on
- ☐ B Driving with the lights on during the day
- ☐ C Speed signs and speed humps
- ☐ D Only driving with limited fuel

**13.18** Where vehicles tip materials into excavations, what **could** be used as a safety precaution?

- ☐ A Stop blocks
- ☐ B Extra speakers
- ☐ C Flashing lights
- ☐ D A siren

**13.19** Why **should** engines be turned off before leaving a site vehicle? Select **two** answers.

- ☐ A Leaving the engine running is a waste of fuel and is therefore a waste of construction budget
- ☐ B Members of the public are likely to jump into the vehicle and steal it
- ☐ C The sound of the engine may give other workers a headache if left on for too long
- ☐ D Drivers may accidentally operate levers when climbing into or out of the vehicle
- ☐ E Construction machines are not designed to be constantly left running

## HIGH RISK ACTIVITIES

**13.20** If there are blind spots while using plant but work needs to continue, what actions **should** be taken?

- ☐ A Use the existing mirrors on the plant
- ☐ B Request the plant be fitted with CCTV cameras
- ☐ C Use a vehicle marshal for this type of work
- ☐ D Work with a slinger

**13.21** Your supervisor asks you to drive a dumper truck but you have **not** driven one before. What **should** you do?

- ☐ A Ask a trained driver how to operate it safely
- ☐ B Watch other dumpers to see how they are operated
- ☐ C Operate the dumper in an open area in case you make a mistake
- ☐ D Tell your supervisor that you are not trained and so cannot operate it



## HIGH RISK ACTIVITIES

**13.22** Which of the following is a **recognised** control measure when reversing a vehicle?

- ☐ A Turning the site radio off
- ☐ B Using a vehicle marshal
- ☐ C Turning on all the vehicle lights
- ☐ D Standing on the back to direct it

**13.23** You think a load is about to fall from a moving forklift truck. What **should** you do?

- ☐ A Run and tell your supervisor
- ☐ B Sound the nearest fire alarm bell
- ☐ C Run alongside the machine and try to hold onto the load
- ☐ D Keep clear but try to warn the driver and others in the area

**13.24** When can a mobile plant operator let people ride in, or on, the machine?

- ☐ A Only if they have a long way to walk
- ☐ B Any time as long as the cab door is shut
- ☐ C Any time as long as the site speed limit is not exceeded
- ☐ D Only if it is designed to carry passengers and has a designated seat

**13.25** You see a lorry parking and it has a flat tyre. Why **should** you tell the driver?

- ☐ A More fuel will be used by the lorry
- ☐ B It could be unsafe to drive the lorry
- ☐ C The lorry can only carry small loads
- ☐ D The driver will need to travel at a much slower speed

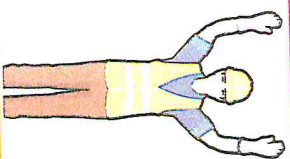
**13.26** An excavator has just stopped work. Liquid is dripping and forming a small pool under the back of the machine. What could this mean?

- ☐ A The machine has a leak and could be unsafe
- ☐ B It is normal for fluids to vent after the machine stops
- ☐ C The machine is hot so the diesel has expanded and overflowed
- ☐ D Someone put too much diesel into the machine before it started work

**13.27** A mobile crane is lifting a load but the load is about to hit something. What **should** you do?

- ☐ A Go and tell your supervisor
- ☐ B Go and tell the crane driver
- ☐ C Try and warn the person supervising or signalling the crane
- ☐ D Do nothing and assume that everything is under control

**13.28** Which signal is being shown in this image?



- ☐ A Danger, emergency stop
- ☐ B Move forwards
- ☐ C Turn right or left
- ☐ D Move backwards

**13.29** What is needed before supervising any lift using a crane?

- ☐ A A mobile phone to talk to the crane driver
- ☐ B Full training and being assessed as competent
- ☐ C Written instructions from the crane hire company
- ☐ D Nothing. The crane driver will tell you what to do

**13.30** Which of the following is a way of ensuring that a slinger or signaller is trained and competent?

- ☐ A By trusting them when they say they are
- ☐ B By asking for evidence to be produced
- ☐ C By having them swear an affidavit
- ☐ D By making a handshake agreement

**13.31** Which action will help to keep signallers safe?

- ☐ A Provide yearly eye tests to confirm they have good vision
- ☐ B Provide body cameras to capture any incidents
- ☐ C Provide gloves for hand signals
- ☐ D Provide hi-vis clothing so they are clearly visible

**13.32** Under what circumstance **should** a driver stop their vehicle immediately?

- ☐ A If the vehicle is low on fuel
- ☐ B If the flashing beacon has stopped working
- ☐ C If they lose sight of their vehicle marshal
- ☐ D If they are operating in a one-way system



## HIGH RISK ACTIVITIES

**13.33** When signalers are used, who **should** they be in contact with at all times?

- ☐ A The machine operator
- ☐ B The site manager
- ☐ C Their supervisor
- ☐ D Pedestrians

**13.34** What is the most important information a vehicle marshaller should know before directing a vehicle?

- ☐ A How to signal vehicles and any relevant safety procedures
- ☐ B The type of materials being delivered to the site
- ☐ C The name and address of the driver for security reasons
- ☐ D The value of the materials, as they could be stolen

**13.35** To reduce the risk of overturning and accidents when not in use, how **should** earth moving vehicles be parked?

- ☐ A With their buckets and blades raised in the air
- ☐ B With their buckets and blades facing the same way
- ☐ C With their buckets and blades lowered to the ground
- ☐ D With the buckets and blades facing opposite directions

**13.36** Where risk of overturning is significant, what **should** vehicles be fitted with?

- ☐ A Extra strength brakes
- ☐ B Roll-over protective structures (ROPS)
- ☐ C Heavy duty graded tyres
- ☐ D A winch and pulley system

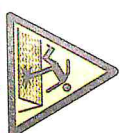
**13.37** To prevent over-turning, when should rear tipping lorries **not** be used for tipping operations?

- ☐ A When on firm, level ground
- ☐ B On uneven or sloping ground
- ☐ C When a competent signaller is supervising
- ☐ D During redistribution of the load

## 14 Working at height

## HIGH RISK ACTIVITIES

- Work at height is defined as work at any height where a person could fall and be injured.
- Every year falls from height kill more construction workers than any other type of accident.
- Work at height should be avoided where possible.
- If you are involved in work at height, your employer should ensure that you have sufficient information, instruction and equipment so that you can work safely.
- All equipment for working at height should be inspected before use.
- There should always be a rescue plan if people are working at height.
- If you feel that the task you are completing at height is unsafe, stop work and report it to your supervisor.
- It would be classed as working at height if you were standing on the back of a lorry during loading or unloading activities.
- All roofs should be treated as fragile until a competent person has confirmed they are not.



Fragile roof

- Safe access and a safe working platform should be provided for all work on fragile roofs.
- One of the leading causes of injury on construction sites is as a result of workers being struck by falling objects.
- Do not attempt to erect, alter or dismantle a mobile access tower unless you have been trained and you are authorised to do so.
- Make sure that there are no people, tools or equipment on a mobile access tower before you attempt to move it.
- The erection, alteration, inspection and dismantling of scaffolding should only be carried out by trained and authorised persons.
- Personal fall-arrest equipment is designed to minimise the consequences if a fall occurs, and will only protect an individual worker.



## HIGH RISK ACTIVITIES

**14.01** Where **should** vehicles be loaded and unloaded?

- ☐ A On an upward slope
- ☐ B On level ground
- ☐ C On a downward slope
- ☐ D On uneven ground

**14.02** What is the purpose of a one-way system at a loading or unloading area?

- ☐ A To eliminate the need to reverse
- ☐ B To allow faster speed limits
- ☐ C To reduce the speed limits
- ☐ D To increase the need to reverse

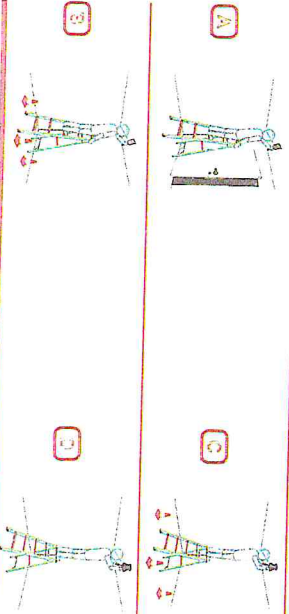
**14.03** Accidents on site are often caused by materials falling from vehicles during what process?

- ☐ A Refuelling
- ☐ B Repainting
- ☐ C Cleaning
- ☐ D Unloading

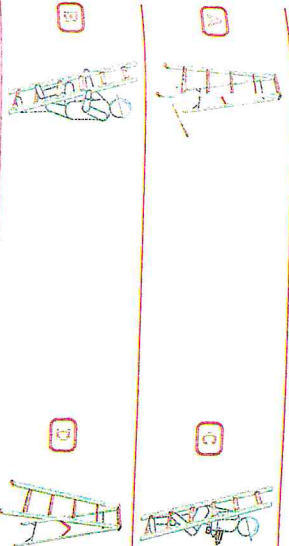
**14.04** What **should** you do if you find a ladder that is damaged?

- ☐ A Try to mend the damage before using it
- ☐ B Use it if you can avoid the damaged part
- ☐ C Don't use it and report the damage at the end of your shift
- ☐ D Don't use it and make sure that others know about the damage

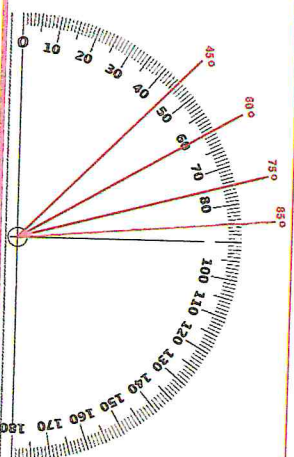
**14.05** Which image shows the **safest** method for using a step ladder?



**14.06** Which image shows the **safe** use of a ladder?



**14.07** What angle should a leaning ladder be used at?



**14.08** According to the Work at Height Regulations, when **can** ladders be used for work?

- ☐ A If it is high risk work for long periods of time
- ☐ B A ladder must never be used on site
- ☐ C If it is low risk work for a short period of time
- ☐ D When other people do not need to use it for access

**14.09** Who **should** check a ladder before it is used?

- ☐ A The site manager
- ☐ B The manufacturer
- ☐ C A site safety officer
- ☐ D The person who is going to use it

## HIGH RISK ACTIVITIES



## HIGH RISK ACTIVITIES

**14.10** What is the **best** way to make sure that a ladder is secure and will not slip?

- ☐ A Secure it at the top
- ☐ B Secure it at the bottom
- ☐ C Wedge the bottom of the ladder with blocks of wood
- ☐ D Ask someone to stand with their foot on the bottom rung

**14.11** What is the **correct** way to climb a ladder?

- ☐ A By having two people on the ladder at all times
- ☐ B Only using the ladder when wearing a safety harness
- ☐ C Having two points of contact with the ladder at all times
- ☐ D Having three points of contact with the ladder at all times

**14.12** How many people are allowed on a ladder at the same time?

- ☐ A Only one person
- ☐ B A maximum of two people
- ☐ C Three people, if it is long enough
- ☐ D One person on each section of an extension ladder

**14.13** Which of the following is **not** true when using podium steps?

- ☐ A Podium steps are safe and can't topple over
- ☐ B Podium steps should be inspected before use
- ☐ C Podium step wheels must be locked before you get on
- ☐ D Podium steps can easily topple if you overreach sideways

**14.14** Which of these statements is **true** about using a ladder to access a scaffold platform?

- ☐ A All broken rungs must be clearly marked
- ☐ B Two people must be on the ladder at all times
- ☐ C It must be wedged at the bottom to stop it slipping
- ☐ D It must be secured, and extend at least 1 m above the platform

**14.15** What should you do if you need to use a mobile access tower but the brakes don't work?

- ☐ A Do not use the tower
- ☐ B Only use the tower if the floor is level
- ☐ C Get someone to hold the tower while you use it
- ☐ D Use some wood to wedge the wheels and stop them moving

**14.16** What is the **correct** way to reach the working platform of a mobile access tower?

- ☐ A Climb up the ladder built into the tower
- ☐ B Climb up the outside of the diagonal bracing
- ☐ C Lean a ladder against the tower and climb up that
- ☐ D Climb up the tower frame on the outside of the tower

**14.17** A mobile access tower must **not** be used on what surface?

- ☐ A A paved patio
- ☐ B An asphalt road
- ☐ C Soft or uneven ground
- ☐ D A smooth concrete path

**14.18** Which of the following is the **safest** method of accessing a mobile access tower?

- ☐ A Climbing up the outside of the tower
- ☐ B Climbing a ladder inside the tower
- ☐ C Climbing a ladder outside of the tower
- ☐ D Climbing a rope on the outside of the tower

**14.19** Which **one** of the following statements is **true** when referring to the wheels on mobile access towers?

- ☐ A The wheels should be locked at all times
- ☐ B The wheels should be locked when the tower is in use
- ☐ C The wheels should be locked when the tower is being moved
- ☐ D The wheels should only be locked at the end of the day

**14.20** Which **one** of the following is a safe way of moving a mobile access tower?

- ☐ A Towing with a site vehicle, with a tow rope attached to the base
- ☐ B Using manual effort pushing only from the base
- ☐ C Using manual effort to pull from the top and the base
- ☐ D Towing with a site vehicle with a tow rope attached to the top

**14.21** When assembling a mobile access tower, near overhead electric cables, which **one** of the following statements is **true**?

- ☐ A The cables can be treated as dead if the work is going to take less than 30 minutes
- ☐ B The cables must be treated as live until it is confirmed they are dead
- ☐ C The cables do not present a danger because mobile access towers are insulated
- ☐ D Personal protective equipment (PPE) will keep workers safe until it is confirmed that the cables are dead

## HIGH RISK ACTIVITIES



## HIGH RISK ACTIVITIES

**14.22** When working at height in a mobile elevating work platform (MEWP), over or near to deep water, which item of personal protective equipment (PPE) **should** be worn?

- ☐ A Wellington boots
- ☐ B Lifejacket
- ☐ C Full face respirator
- ☐ D Full body harness

**14.23** What should a harness lanyard be attached to when working in a mobile elevating work platform (MEWP)?

- ☐ A The control box
- ☐ B The MEWP handrail
- ☐ C A point on the structure or building you are working on
- ☐ D A designated anchor point within the platform or basket

**14.24** A worker has been asked to operate a mobile elevating work platform (MEWP), but has no training. What **should** they do?

- ☐ A Get the work done as quickly as possible
- ☐ B Ask a workmate how to operate the MEWP
- ☐ C Tell their supervisor that they have no training
- ☐ D Operate the MEWP at breaktime when no-one is around

**14.25** A mobile elevating work platform (MEWP) must **not** be used on what surface?

- ☐ A An asphalt road
- ☐ B A smooth concrete path
- ☐ C Soft or uneven ground
- ☐ D A concrete road

**14.26** A worker is wearing a harness in a boom type mobile elevating work platform (MEWP) (sometimes known as a cherry picker). Which **one** of the following **should** the harness have?

- ☐ A A work-restraint lanyard clipped to an attachment point in the basket
- ☐ B A work-restraint lanyard clipped to the hand rail of the basket
- ☐ C A fall-arrest lanyard clipped to the structure being worked on
- ☐ D A fall-restraint lanyard clipped to the control box of the machine

**14.27** What does this symbol on a mobile elevating work platform (MEWP) show?



- ☐ A The location of the lowering controls for use in emergency
- ☐ B The location of the points where workers can lean over the platform
- ☐ C The guard-rail height
- ☐ D The safe method of exiting the platform

**14.28** Which **one** of the following should a worker do if a mobile elevating work platform (MEWP) does **not** allow safe access to the place of work?

- ☐ A Stand on the guard rails
- ☐ B Use a step ladder on the platform
- ☐ C Inform a supervisor that a larger MEWP is needed
- ☐ D Put pallets on the working platform

**14.29** What should you do if you are required to use access equipment that you have **not** been trained to use?

- ☐ A Get a ladder instead
- ☐ B Ask someone else to do it
- ☐ C Do the job if it won't take long
- ☐ D Stop work and speak to your supervisor

**14.32** Which **two** of the following statements are **true** about working on a roof?



You will be asked to 'drag and drop' your answers

- ☐ A It is safe to try to walk near underlying roof supports
- ☐ B Wired glass roof panels are likely to be fragile
- ☐ C It is easy to see which roof surfaces are likely to be fragile
- ☐ D Workers should not work on a roof where there is no protection from falls
- ☐ E Asbestos and fibre cement roof sheets are unlikely to be fragile

## HIGH RISK ACTIVITIES

**14.30** If you are working on a flat roof, what is the **best** way to stop yourself falling over the edge?

- ☐ A Use red and white tape to mark the edge
- ☐ B Put a large warning sign at the edge of the roof
- ☐ C Protect the edge with a guard-rail and a toe-board
- ☐ D Ask someone to watch you and shout when you get too close to the edge

**14.31** Who **should** complete pre-use checks on ladders or other equipment used for working at height?

- ☐ A The employer
- ☐ B The worker using the equipment
- ☐ C The supervisor
- ☐ D The site manager



## HIGH RISK ACTIVITIES

**14.33** What does the following sign mean?



- ☐ A Fragile roof
- ☐ B Deep water
- ☐ C Safety boots must be worn
- ☐ D No running

**14.34** A fragile roof needs to be repaired. Which of the following would be regarded as the **safest** method?



- ☐ A Workers work from underneath using a mobile elevating working platform (MEWP)
- ☐ B Workers access the roof by walking as close as possible to the underlying roof supports
- ☐ C Workers working on the roof wearing safety boots and helmets
- ☐ D Workers work from underneath using ladders and ropes for anchoring

**14.35** Which **one** of the following statements is **true** of a person who has fallen, and is suspended in a fall-arrest harness?



- ☐ A They will need to be rescued quickly
- ☐ B There will be no reason to call an ambulance
- ☐ C They will be safe in the harness for over an hour
- ☐ D They should be left to rescue themselves

**14.36** Which **one** of the following statements is **true** of painting wooden ladders used in construction?



- ☐ A Ladders should be painted orange to make them more visible
- ☐ B Ladders should never be painted as this could hide defects or damage
- ☐ C It is a good idea to paint ladders because this protects them
- ☐ D It is advisable to paint ladders to prevent them being stolen

**14.37** A worker is storing materials above toe-board height on a scaffold. How **should** people below be protected?



- ☐ A Shout a warning to anyone passing below
- ☐ B Use string to secure the materials
- ☐ C Halt the work when people are approaching
- ☐ D Use a brick guard or suitable mesh netting

**14.38** Under which **one** of the following circumstances is it safe for a worker to remove a protective cover from a deep service hole on site?



- ☐ A The worker is wearing a safety helmet and waits until everyone else has left the site
- ☐ B The worker is authorised to do so and is protected from falling whilst the cover is not in place
- ☐ C The worker is wearing hi-vis and has told a few people on site that the cover will be removed
- ☐ D The worker has placed a safety cone by the hole so people will avoid the area

**14.39** What is the **maximum** length of time that a worker should work from a step ladder in one position?



- ☐ A Less than 30 minutes
- ☐ B Less than one hour
- ☐ C Less than 90 minutes
- ☐ D Less than two hours

**14.40** Which **one** of the statements about storing materials on a working platform is **correct**?



- ☐ A Materials can be stored unsecured but they must be above guard-rail height
- ☐ B Materials do not need to be secured if they are going to be there for less than an hour
- ☐ C Materials can be stored anywhere, even if they pose a trip hazard or block the walkway
- ☐ D Materials must be stored so they can't fall and the platform must be able to take their weight

**14.41** What is the **best** way to stop people being hit by falling tools and materials when you are working above them?



- ☐ A Make sure they are wearing safety helmets
- ☐ B Only allow authorised people underneath the work area
- ☐ C Tell them you will be working above them and erect signs
- ☐ D Exclude people from below the work area with fencing and signs

**14.42** If you need to stack materials on a working platform, what is the **best** way to stop them falling over the toe-board?



- ☐ A Cover the stack with polythene
- ☐ B Put a warning sign on the stack
- ☐ C Have brick guards or netting fitted to the edge
- ☐ D Build the stack so that it leans away from the edge

**14.43** To ensure the public is not put at risk from falling materials for the duration of work, what may be necessary?



- ☐ A Pavement closure or diversion
- ☐ B Giving the public hard hats
- ☐ C Making pedestrians use the road
- ☐ D Giving the public hi-vis clothing

**14.44** If a person is struck by a falling object, what **could** be the negative consequence?



- ☐ A They get fired
- ☐ B They get injured
- ☐ C They get a promotion
- ☐ D They get compensation



## HIGH RISK ACTIVITIES

**14.45** What piece of personal protective equipment (PPE) **should** be worn on sites where there is a risk of falling objects?

- ☐ A Protective goggles
- ☐ B Hard hat
- ☐ C Hi-vis clothing
- ☐ D A safety harness

**14.46** When is it safe to cross a fragile roof?

- ☐ A Only when you can see fragile roof signs
- ☐ B Only if you do not walk on any plastic panels
- ☐ C When crawling boards with handrails are available to use
- ☐ D At any time as long as you walk along the line of the bolts

**14.47** What does this sign mean?



- ☐ A Fragile roof. Take care when walking on roof surface
- ☐ B Load-bearing roof. The surface can be slippery when wet
- ☐ C Load-bearing roof. You can stand on the surface but not on any roof lights
- ☐ D Fragile roof. Use fall protection measures and do not stand directly on the roof

**14.48** What is the **best** way to stop people falling through voids, holes or fragile roof panels?

- ☐ A Tell everyone where the dangerous areas are
- ☐ B Mark the dangerous areas with red and white warning tape
- ☐ C Cover the dangerous areas with safety netting and tell everyone to be careful
- ☐ D Place secure, load-bearing covers over the dangerous areas and add warning signage

**14.49** A material that may hide fragile surfaces has been applied to a roof. What action **should** be taken?

- ☐ A Nothing – the material applied should be fine
- ☐ B The fragile areas should be clearly marked and protected
- ☐ C Nothing – workers should know to be careful
- ☐ D The fragile areas should be painted green

**14.50** Which **one** of the following surfaces is **not** likely to be fragile?

- ☐ A A reinforced concrete roof
- ☐ B A fibre cement sheet roof
- ☐ C A glass panel roof
- ☐ D A slate tiled roof

**14.51** A scaffold guard-rail **must** be removed to allow you to carry out a task. If you are not a scaffolder, can you remove the guard-rail?

- ☐ A Yes, if you put it back before you leave the site
- ☐ B Yes, if you put it back as soon as you have finished
- ☐ C No, only a scaffolder can remove the guard-rail and put it back
- ☐ D No, only a scaffolder can remove the guard-rail but you can put it back

**14.52** How can the safe load rating for a scaffold platform be identified?

- ☐ A By asking the telehandler driver
- ☐ B By asking the principal contractor
- ☐ C Referring to the handover certificate or signage
- ☐ D The safe load is breached when the ledgers start to deflect

**14.53** What should you do if you think that the scaffolding you are working from is **not** safe?

- ☐ A Report it to your supervisor at the end of the shift
- ☐ B Try to make the repairs yourself and then report it to your supervisor
- ☐ C Report your concerns to your supervisor straight away
- ☐ D Ignore it and wait for the scaffolders to identify any problems

**14.54** What should you do if you notice your harness or attachment is damaged?

- ☐ A Use a colleague's harness instead
- ☐ B Stop and tell your supervisor straight away
- ☐ C Use it and tell your supervisor at the end of the day
- ☐ D Stop and tell your supervisor but carry on using it until it is replaced

**14.55** What is an **inertia reel**?

- ☐ A A retractable fall arrester
- ☐ B A horizontal fall arrester
- ☐ C A pulley-operated fall arrester
- ☐ D A rope-based fall arrester

**14.56** Which of the following **best** describes the purpose of personal fall prevention equipment?

- ☐ A It is designed to prevent falls from occurring
- ☐ B It is designed to minimise the consequences if a fall occurs
- ☐ C It is designed to protect more than one person if a fall occurs
- ☐ D It is designed to be used in confined spaces only



**14.57** When are personal fall-arrest systems to be used?

- ☐ A Only as a last resort
- ☐ B The majority of the time
- ☐ C In the morning
- ☐ D During a night shift

**14.58** Who **should** know how to carry out pre-use checks on fall-arrest equipment?

- ☐ A The site managers
- ☐ B All workers who use it
- ☐ C All workers on site
- ☐ D The apprentice workers

14

## 15 Excavations and confined spaces

- Excavations should always have a safe means of access and egress, such as a secured ladder.
- Excavations should be inspected at the start of every shift, or after events that might affect stability.
- The most accurate way to identify the location of buried services is through the use of trial holes.
- If you damage an underground service, stop work, do not touch anything and report it.
- Permit systems are often used where people are working in confined spaces.
- If you are working in a confined space and the gas alarm sounds, get out immediately.
- There should always be a rescue plan if you are working in a confined space.

**15.01** You are in a deep trench. A lorry backs up to the trench and the engine is left running. What **should** you do?

- ☐ A Get out of the trench quickly
- ☐ B See if there is a toxic gas meter in the trench
- ☐ C Put on ear defenders to cut out the engine noise
- ☐ D Ignore the problem, as the lorry will soon drive away

**15.02** What **should** you do if you see the side supports move when you are working in an excavation?

- ☐ A Work in another part of the excavation instead
- ☐ B Keep working and watch to see if they move again
- ☐ C Make sure that you and other workers get out quickly
- ☐ D Nothing. The sides are expected to move all the time

**15.03** What is the **main** hazard when working in an excavation?

- ☐ A Breathing-in hazardous dust from the earth
- ☐ B Cuts and abrasions from the trench sides
- ☐ C Trips and falls due to the space restriction
- ☐ D Crushing, if the sides are not supported

**15.04** When **should** an excavation be battered back or stepped?

- ☐ A If it is more than 5 m deep
- ☐ B If any buried services cross the excavation
- ☐ C If there is water in the bottom of the trench
- ☐ D If there is a risk of the sides falling in, regardless of depth

15



## HIGH RISK ACTIVITIES

**15.05** What do guard-rails around the top of an excavation prevent?

- ☐ A The sides of the trench collapsing
- ☐ B People falling into the trench and being injured
- ☐ C Toxic gases collecting in the bottom of the trench
- ☐ D Rainwater running off the ground at the top and into the trench

**15.06** What is the **safest** way to get into and out of a deep excavation?

- ☐ A Use a fixed staircase
- ☐ B Use an excavator bucket
- ☐ C Use the buried services as steps
- ☐ D Use the shoring or trench supports

**15.07** What equipment **should** be used when digging near to underground electrical services?

- ☐ A An excavator
- ☐ B A jack hammer
- ☐ C A pick and fork
- ☐ D An insulated spade

**15.08** What does it mean if a run of coloured marker tape is found when digging?

- ☐ A The excavation now requires side supports
- ☐ B There are buried human remains and you must tell your supervisor
- ☐ C There is a buried service and further excavation must be carried out with care
- ☐ D The soil is contaminated and you must wear respiratory protective equipment (RPE)

**15.09** According to the guidance on underground service pipes, what does a yellow service pipe carry?

- ☐ A Water
- ☐ B Gas
- ☐ C Electricity
- ☐ D Telecoms

**15.10** What **three** things should you do before entering a confined space that has sludge at the bottom?

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- 
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- 
- 
- 

You will be asked to 'drag and drop' your answers

**15.11** What **should** you do if your permit to work in a confined space will run out before you finish the task you are carrying out?

- ☐ A Hand the permit over to the next shift
- ☐ B Carry on working until the job is finished
- ☐ C Leave the confined space before the permit runs out
- ☐ D Ask your supervisor to change the date on the permit

**15.12** What **should** you do if you are in a deep trench and you start to feel dizzy?

- ☐ A Sit down in the trench and take a rest
- ☐ B Get out, let your head clear and then go back in again
- ☐ C Carry on working and hope that the feeling will go away
- ☐ D Make sure that you and any others get out quickly and report it

**15.13** Why is methane gas dangerous in confined spaces? Give **two** answers

- 
- 
- 
- 
- 
- 
- 

You will be asked to 'drag and drop' your answers

## HIGH RISK ACTIVITIES



## HIGH RISK ACTIVITIES

**15.14** What is the **most** important reason why people should be trained and competent before they are allowed to enter a confined space?

- ☐ A Confined spaces never contain breathable air
- ☐ B Confined spaces are only found on house-building sites
- ☐ C Confined spaces always contain flammable or explosive gases
- ☐ D Confined space entrants need to understand the potential hazards

**15.15** What is the **main** reason for having a person positioned immediately outside a confined space while work is taking place inside it?

- ☐ A To carry out a risk assessment for the work
- ☐ B To check compliance with the method statement
- ☐ C To start the rescue plan if there is an emergency
- ☐ D To supervise the work inside the confined space

**15.16** What is the **main** cause of people dying while working in a confined space?

- ☐ A Lack of oxygen
- ☐ B Too much oxygen
- ☐ C Presence of methane
- ☐ D Cold conditions leading to hypothermia

**15.17** What might happen if the level of oxygen drops below 8% in a confined space?

- ☐ A You might get dehydrated
- ☐ B Your hearing could be affected
- ☐ C You could become unconscious
- ☐ D There is a high risk of fire or explosion

**15.18** When working in a confined space, what is it a sign of if there is a smell of rotten eggs?

- ☐ A Oxygen
- ☐ B Methane
- ☐ C Carbon dioxide
- ☐ D Hydrogen sulphide

**15.19** What is it likely to mean if the soil gives off a strange smell when digging?

- ☐ A The soil contains a lot of clay
- ☐ B The ground could be contaminated
- ☐ C The soil has been excavated before
- ☐ D The ground has been used to grow crops in the past

## 16 Hazardous substances

- Asbestos containing materials (ACMs) can be difficult to identify. Asbestos is made up of hazardous, microscopic fibres which can easily be inhaled.
- If you think a material contains asbestos, always assume it does. Stop work, warn others, and report it to your supervisor.
- Your employer should ensure that exposure to hazardous substances is prevented or adequately controlled.
- Health and safety information for hazardous substances should be detailed in a COSHH assessment.
- Control measures for working with hazardous substances should be monitored regularly.
- Wet cement and concrete can cause skin burns and dermatitis if they are in direct contact with your skin.
- Lead is toxic. The most common route of entry into the body is via the mouth (ingestion).

**16.01** Where are you **most** likely to come across asbestos?

- ☐ A In a house built between 1950 and 2005
- ☐ B In any industrial building built after the year 2000
- ☐ C In any building built or refurbished before the year 2000
- ☐ D Asbestos has now been removed from all houses and buildings

**16.02** Breathing in asbestos dust is **most** likely to cause which of the following?

- ☐ A Lung diseases
- ☐ B Throat infections
- ☐ C Dizziness and headaches
- ☐ D Aching muscles and painful joints



## HIGH RISK ACTIVITIES

**16.03** Exposure to asbestos fibres may result in which illness?

- ☐ A Dermatitis
- ☐ B Skin cancer
- ☐ C Heart disease
- ☐ D Lung cancer

**16.04** How can asbestos be correctly identified?

- ☐ A The distinct colour of the dust
- ☐ B By getting a sample analysed in a laboratory
- ☐ C It is clear from the strong smell of the dust
- ☐ D By putting a piece in water and seeing if it dissolves

**16.05** Which **one** of the following statements about asbestos is **true**?

- ☐ A Asbestos fibres are most likely to enter the body through the skin
- ☐ B Asbestos fibres only cause health problems for smokers
- ☐ C Asbestos in buildings must always be removed regardless of condition
- ☐ D Asbestos fibres are most likely to enter the body through inhalation

**16.06** Cement-based roofing sheets are a common material which can often contain what hazardous substance?

- ☐ A Rust
- ☐ B Dry rot
- ☐ C Termites
- ☐ D Asbestos

**16.07** What is the **main**, immediate hazard from kneeling directly on wet cement?

- ☐ A Skin burns
- ☐ B Dermatitis
- ☐ C Eczema
- ☐ D Skin rash

**16.08** What does a COSHH assessment cover?

- ☐ A Working safely in confined spaces
- ☐ B Lifting heavy loads and how to protect yourself
- ☐ C The assessment of noise levels and how to protect your hearing
- ☐ D Hazardous substances and how to protect yourself when using them

**16.09** Whose responsibility is it to explain the health risks and safe method of work you need to follow (the COSHH assessment) before work starts with a hazardous substance?

- ☐ A The site first aider
- ☐ B The site security people
- ☐ C Your supervisor or employer
- ☐ D A Health and Safety Executive (HSE) inspector

**16.10** What is the **first** thing you **should** do if you find an unmarked container that you think might contain chemicals?

- ☐ A Smell it to see what the chemical is
- ☐ B Move the container to somewhere safe
- ☐ C Put the container in a bin to get rid of it
- ☐ D Ensure that it remains undisturbed and report it

**16.11** How is it possible to tell that a product is hazardous?

- ☐ A It will always be in a cardboard box
- ☐ B It will always be in a black container
- ☐ C By the shape of the container or packaging
- ☐ D By warning symbols on the container or packaging

**16.12** What does the word **sensitiser** mean on the packaging of a substance?

- ☐ A It should not be used under any circumstances
- ☐ B It must be mixed with water before it can be used
- ☐ C That it could cause allergic reactions when handled
- ☐ D It is safe to use without personal protective equipment (PPE)

**16.13** Identify which of the following signs is associated with a substance being toxic if swallowed or inhaled?

- ☐ A 
- ☐ B 
- ☐ C 
- ☐ D 

**16.14** If warnings about how to work with hazardous substances are not followed, what is a **likely** consequence for workers?

- ☐ A Good health
- ☐ B Increased fitness level
- ☐ C Decreased fitness levels
- ☐ D Ill health



## HIGH RISK ACTIVITIES

**16.15** What should employers check regularly if you are working with hazardous substances?

- ☐ A Your mood
- ☐ B Your family
- ☐ C Your health
- ☐ D Your wages

**16.16** A worker is using a new substance when they start to feel ill. What should the worker do?

- ☐ A Stop work and report it to a supervisor or manager on site immediately
- ☐ B Nothing – it is acceptable to feel ill with certain substances
- ☐ C Continue with the work but report it to the supervisor later
- ☐ D Enter the details into an incident report and continue to work with the substance

**16.17** When working through a construction health and safety checklist, which of these hazardous substances **should** be identified?

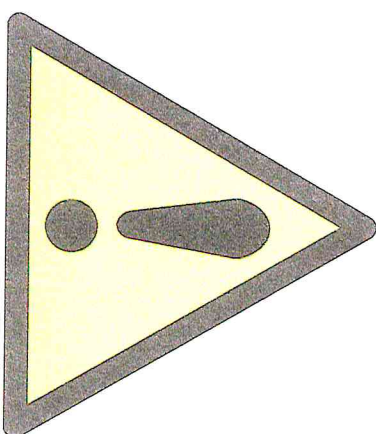
- ☐ A Lead, solvents, cement, asbestos
- ☐ B Asbestos, cement, paints, noise levels
- ☐ C Noise levels, solvents, dust, paint
- ☐ D Vibration levels, noise levels, asbestos, cement

**16.18** Which of the following tasks could place a worker at the **greatest** risk of lead poisoning, if control measures were not put in place?

- ☐ A Plastering a ceiling in a new build home
- ☐ B Building a wall out of old stone
- ☐ C Cutting timber in a roof construction
- ☐ D Sanding down some old paintwork

## Congratulations

You have now completed the core knowledge questions



### For the Specialists test

You should now revise the appropriate specialist activity from Section E.



# Specialist

If you are preparing for a specialist test you also need to revise the appropriate specialist activity, from those listed below.

17	Supervisory	126
18	Demolition	140
19	Highway works	147
20	Specialist work at height	156
21	Lifts and escalators	165
22	Tunnelling	174
Heating, ventilation, air conditioning and refrigeration (HVACR)		
23	Heating and plumbing services	182
24	Pipefitting and welding	190
25	Ductwork	199
26	Refrigeration and air conditioning	207
27	Services and facilities maintenance	215
28	Plumbing (JIB)	223



## 17 Supervisory

**17.01** What is the purpose of the health and safety file that is handed to the client at the end of the project?

- ☐ To help people who have to carry out work on the structure in the future
- ☐ To help prepare the final accounts for the structure
- ☐ To record the health and safety standards of the structure
- ☐ To record the accident statistics of the construction project

**17.02** When the Construction (Design and Management) Regulations 2015 apply, what **must** be in place before construction work begins?

- ☐ The health and safety file
- ☐ The construction phase plan
- ☐ The method statement
- ☐ The construction contract agreement

**17.03** Under the Construction (Design and Management) Regulations 2015, what **must** be provided before construction work starts, and then maintained until the end of the project?

- ☐ A safety log book
- ☐ A premises log book
- ☐ A car park or other parking facilities
- ☐ Adequate welfare facilities

**17.04** Under the Construction (Design and Management) Regulations 2015, where would you find the arrangements for managing health and safety for the project you are working on?

- ☐ In the health and safety file
- ☐ In the construction phase plan
- ☐ In the contract documentation
- ☐ In the designer's risk assessment

**17.05** Under the Construction (Design and Management) Regulations 2015, which of the following **must** be in place before demolition work can start?

- ☐ A health and safety file
- ☐ The arrangements for demolition recorded in writing
- ☐ A demolition risk assessment
- ☐ The pre-tender demolition health and safety plan

**17.06** Under the Construction (Design and Management) Regulations 2015, when the contractor sets a person to work on a construction site, what **must** they ensure that person has, or be in the process of, obtaining?

- ☐ The right skills, knowledge, training and experience
- ☐ The relevant competency card
- ☐ A hard hat, hi-vis clothing and safety footwear
- ☐ A relevant qualification for the work to be undertaken

**17.07** Under the Construction (Design and Management) Regulations 2015, which **two** of the following must you ensure workers have received before they start working on site?

- ☐ A suitable site induction, specific to the work
- ☐ Details of the client's brief and project expectations
- ☐ Confirmation of their working hours and rest breaks
- ☐ Details of the designer's plan of work
- ☐ Information on relevant hazards and control measures

**17.08** How long **must** you keep inspection records under the Construction (Design and Management) Regulations 2015?

- ☐ For three months after the inspection has been carried out
- ☐ For one week on site before sending them to head office
- ☐ Until the construction work is complete and then for three months
- ☐ Only until the project is complete

**17.09** You have to use a new substance for the first time and need to carry out a COSHH assessment. What are the **two** main things you will need?

- ☐ You will be asked to 'drag and drop' your answers
- ☐ Your company's safety policy
- ☐ The safety data sheet
- ☐ The age of the people doing the work
- ☐ The delivery note
- ☐ Details of where, and how, you intend to use the substance

**17.10** What does a COSHH assessment tell you?

- ☐ How to lift heavy loads and how to protect yourself
- ☐ How to work safely in confined spaces
- ☐ How to use a substance safely in the environment in which it is to be used
- ☐ How to assess noise levels to protect your hearing

**17.11** Which piece of equipment is used with a cable avoidance tool (CAT) to detect cables?

- ☐ Compressor
- ☐ Signal generator
- ☐ Metal detector
- ☐ Gas detector



**17212** On the site electrical distribution system, which colour plug indicates a 400 volt supply?

☐ Yellow

☐ Blue

☐ Black

☐ Red

**17213** Why **must** a residual current device (RCD) be used in conjunction with 230 volt electrical equipment?

☐ It lowers the voltage

☐ It quickly cuts off the power if there is a fault

☐ It makes the tool run at a safe speed

☐ It saves energy and lowers costs

**17214** How could a site worker check if the residual current device (RCD) through which a 230 volt hand tool is connected to the supply is working correctly?

☐ Switch the tool on and off

☐ Press the test button on the RCD unit

☐ Switch the power on and off

☐ Run the tool at top speed to see if it cuts out

**17215** In the colour coding of electrical power supplies on site, what voltage does a blue plug represent?

☐ 50 volts

☐ 110 volts

☐ 230 volts

☐ 400 volts

**17216** Where should an emergency escape route take you to?

☐ The ground

☐ The open air

☐ A place of safety

☐ A first-aid room

**17217** Which of the following is a significant hazard when excavating alongside a building or structure?

☐ Undermining or weakening the foundations of the building

☐ Noise and vibration affecting the occupants of the building

☐ Excavating too deeply into soft ground

☐ Damaging the surface finish of the building or structure

**17218** What danger is created by excessive oxygen in a confined space?

☐ An increase in the breathing rate of workers

☐ An increased flammability of combustible materials

☐ An increased working time inside the work area

☐ A false sense of security

**17219** When planning possible work in a confined space, what should be the **first** consideration?

☐ How long the job will take

☐ How to avoid the need for operatives to enter the space

☐ How many operatives will be required

☐ What personal protective equipment (PPE) will be needed

**17220** When is it advisable to take precautions to prevent people, plant or materials falling into an excavation?

☐ At all times

☐ When the excavation is 2 m or more deep

☐ When the excavation is 1.2 m or more deep

☐ When there is a risk from an underground cable or other service

**17221** Which of the following precautions should be taken to prevent a dumper that is tipping material into an excavation from falling into it?

☐ Dumpers should be kept 5 m away from the excavation

☐ Stop blocks should be provided, parallel to the trench and appropriate to the vehicle's wheel size

☐ Dumper drivers are required to judge the distance carefully or be given stop signals by another person

☐ Cones or signage should be erected to indicate the safe tipping point

**17222** Which **two** of the following factors must be considered when providing first-aid facilities on site?

You will be asked to 'drag and drop' your answers

☐ The hazards, risks and nature of the work carried out

☐ The number of people expected to be on site at any one time

☐ The difficulty in finding time to purchase the necessary equipment

☐ The space in the site office to store the necessary equipment

☐ The cost of first-aid equipment



17.23 Which of the following tasks would you expect the appointed person for first aid to carry out?

- ☐ They should provide most of the care normally carried out by a first aider
- ☐ They should provide all of the care normally carried out by a first aider
- ☐ They should contact the emergency services when required
- ☐ They should only apply splints to broken bones

17.24 What does the proactive monitoring of health and safety procedures involve?

- ☐ Ensuring that staff always do the work that they have been instructed to do safely
- ☐ Deciding how to prevent accidents similar to those that have already occurred
- ☐ Looking at the work to be done, what could go wrong and how it could be done safely
- ☐ Checking that all staff read and understand all health and safety notices

17.25 Why may a young person be more at risk of having an accident?

- ☐ Legislation does not apply to anyone under 18 years of age
- ☐ They are usually left to work alone to gain experience
- ☐ They have less experience and may not recognise danger or understand fully what could go wrong
- ☐ They are less likely to wear personal protective equipment (PPE)

17.26 How should cylinders containing liquefied petroleum gas (LPG) be stored on site?

- ☐ In a locked cellar with clear warning signs
- ☐ In a locked cage at least 3 m from any oxygen cylinders
- ☐ In a secure storage container at the back of the site
- ☐ Covered by a tarpaulin to shield the compressed cylinder from sunlight

17.27 Where should liquefied petroleum gas (LPG) cylinders supplying an appliance in a site cabin be positioned?

- ☐ Inside the cabin in a locked cupboard
- ☐ Under the cabin
- ☐ Inside the cabin next to the appliance
- ☐ Outside the cabin

17.28 What should be used to protect passers-by from getting arc eye when electric welding is about to start on your site?

- ☐ Warning signs
- ☐ Screens
- ☐ Personal protective equipment (PPE)
- ☐ Nothing

17.29 What should be the capacity of a spillage bund around a fuel storage tank, in addition to the volume of the tank?

- ☐ 10% (110% of the total content)
- ☐ 30% (130% of the total content)
- ☐ 50% (150% of the total content)
- ☐ 75% (175% of the total content)

17.30 If there is a fatal accident or a reportable dangerous occurrence on site, when **must** the Health and Safety Executive (HSE) be informed?

- ☐ Immediately
- ☐ Within five days
- ☐ Within seven days
- ☐ Within ten days

17.31 What **must** happen if a prohibition notice is issued by an inspector of the Health and Safety Executive (HSE) or Local Authority?

- ☐ Work can continue, as long as a risk assessment is carried out
- ☐ The work that is subject to the notice must stop
- ☐ The work can continue if extra safety precautions are taken
- ☐ The work in hand can be completed, but no new works started

17.32 Who should you inform if someone tells you that they have work-related hand-arm vibration syndrome (HAVS)?

- ☐ The Health and Safety Executive (HSE)
- ☐ The local Health Authority
- ☐ The person's doctor
- ☐ The nearest hospital

17.33 When does an employer have to prepare a written health and safety policy?

- ☐ If they employ five people or more
- ☐ If they employ three people or more
- ☐ If they employ a safety officer
- ☐ If the work is going to last more than 30 days

17.34 The significant findings of risk assessments **must** be recorded when how many people are employed?

- ☐ Three or more
- ☐ Five or more
- ☐ Six or more
- ☐ Seven or more



**17.35** Before allowing a lifting operation to be carried out, where should you ensure that the sequence of operations is recorded to enable a safe lift?

- ☐ In the crane hire contract
- ☐ In an approved lifting plan or method statement
- ☐ In a lifting operation toolbox talk
- ☐ In a risk assessment

**17.36** What does the term **lower exposure action value** (80 decibels (dBA)) mean, when referring to noise?

- ☐ The average background noise level
- ☐ The noise level at which the worker can request hearing protection
- ☐ The level of noise which must not be exceeded on the site boundary
- ☐ The noise level at which the worker must wear hearing protection

**17.37** At what decibel (dBA) level does it become mandatory for an employer to establish hearing protection zones?

- ☐ 80 decibels (dBA)
- ☐ 85 decibels (dBA)
- ☐ 90 decibels (dBA)
- ☐ 95 decibels (dBA)

**17.38** At what **minimum** noise level must you provide hearing protection to workers if they ask for it?

- ☐ 80 decibels (dBA)
- ☐ 85 decibels (dBA)
- ☐ 87 decibels (dBA)
- ☐ 90 decibels (dBA)

**17.39** What is the significance of a weekly or daily personal noise exposure of 87 decibels (dBA)?

- ☐ It is the lower action value and no action is necessary
- ☐ It is the upper action value and hearing protection must be issued
- ☐ It is the peak sound pressure and all work must stop
- ☐ It is the exposure limit value and must not be exceeded

**17.40** In considering what measures to take to protect workers against risks to their health and safety, when should personal protective equipment (PPE) be considered?

- ☐ First, because it is an effective way to protect people
- ☐ First, as the only practical measure
- ☐ Never, as using PPE is bad practice
- ☐ Only when the risks cannot be eliminated by other means

**17.41** In deciding what control measures to take, following a risk assessment that has revealed a risk, what measure should you always consider **first**?

- ☐ Make sure personal protective equipment (PPE) is available
- ☐ Adapt the work to the individual
- ☐ Give priority to measures that protect the whole workforce
- ☐ Avoid the risk altogether if possible

**17.42** Why is it important that hazards are identified?

- ☐ They have the potential to cause injury or harm
- ☐ They must all be eliminated before work can start
- ☐ They must all be notified to the Health and Safety Executive (HSE)
- ☐ So that toolbox talks can be given on the hazards

**17.43** In the context of a risk assessment, what does the term **risk** mean?

- ☐ Anything that could cause harm to you or another person
- ☐ Any unsafe act or condition which could cause loss, injury or damage
- ☐ The likelihood that you, or someone else, could be harmed, and how serious any harm could be
- ☐ Any work activity that can be described as hazardous or dangerous

**17.44** Which of the following should be the **first** consideration if you need to use a hazardous substance?

- ☐ What instruction, training and supervision to provide
- ☐ What health surveillance arrangements will be needed
- ☐ How to minimise risk and control exposure
- ☐ How to monitor the exposure of workers in the workplace

**17.45** What is the purpose of using a permit to work system?

- ☐ To ensure that the job is carried out quickly
- ☐ To ensure that the job is carried out by the easiest method
- ☐ To enable tools and equipment to be properly checked before work starts
- ☐ To establish a controlled, safe system of work

**17.46** If a scaffold is **not** complete, which of the following actions should be taken by the supervisor?

- ☐ Make sure that the scaffolders complete the scaffold
- ☐ Tell operatives not to use the scaffold
- ☐ Display a warning notice and tell operatives to use the scaffold with care
- ☐ Prevent access to the scaffold and add warning signage



**17.47** Following a scaffold inspection under the Work at Height Regulations, how soon **must** a report be given to the person on whose behalf the inspection was made?

- ☐ A Within two hours
- ☐ B Within six hours
- ☐ C Within 12 hours
- ☐ D Within 24 hours

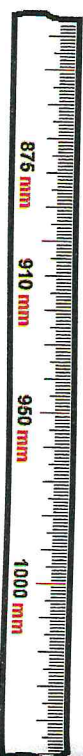
**17.48** On a scaffold, what is the largest allowable size of an unprotected gap between any guard-rail, toe-board, barrier or other similar means of protection?

- ☐ A 400 mm
- ☐ B 470 mm
- ☐ C 500 mm
- ☐ D 600 mm

**17.49** What is the **maximum** unprotected gap allowed between any guard-rail, toe-board, barrier or other similar means of protection on a scaffold?



**17.50** What is the **minimum** height of the main guard-rail on a scaffold?



**17.51** What is the **best** way for a supervisor or manager to make sure that the operatives doing a job have fully understood a method statement?

- ☐ A Put the method statement in a labelled ring-binder in the office
- ☐ B Explain the method statement to those doing the job and test their understanding
- ☐ C Make sure that those doing the job have read the method statement
- ☐ D Display the method statement on a noticeboard in the office

**17.52** Where **must** the number of people who may be carried in a passenger hoist on site be displayed?

- ☐ A On a legible notice in the site welfare area
- ☐ B On a legible notice within the cage of the hoist
- ☐ C On a legible notice displayed during the site induction
- ☐ D On a legible notice handed to the hoist operator

**17.53** From a safety point of view, which of the following should be considered **first** when deciding on the number and location of access and egress points on a site?

- ☐ A Off-road parking for cars and vans
- ☐ B Access for the emergency services
- ☐ C Access for heavy vehicles
- ☐ D Site security

**17.54** How should access be controlled if people are working in a riser shaft?

- ☐ A By a site security operative
- ☐ B By those who are working in it
- ☐ C By the main contractor
- ☐ D By a permit to work system

**17.55** What is your **least** reliable source of information when assessing the level of vibration from a powered hand tool?

- ☐ A In-use vibration measurement of the tool
- ☐ B Vibration figures taken from the tool manufacturer's handbook
- ☐ C Your own judgement based upon observation or experience
- ☐ D Vibration data from the Health and Safety Executive's (HSE) master list

**17.56** What regulation contains details of the welfare facilities that **must** be provided on a construction site?

- ☐ A The Control of Substances Hazardous to Health (COSHH)
- ☐ B The Construction (Design and Management) Regulations
- ☐ C The Management of Health and Safety at Work Regulations
- ☐ D The Workplace (Health, Safety and Welfare) Regulations



**17.57** What is regarded as the **first person** in the hierarchy of control for operatives' safety when working at height?

- ☐ Safety harness
- ☐ Mobile elevating work platform (MEWP)
- ☐ Mobile access tower
- ☐ Access tower scaffold

**17.58** Which of the following is a fall-arrest system?

- ☐ Guard-rail and toe-board
- ☐ Mobile access tower
- ☐ Mobile elevating work platform (MEWP)
- ☐ Safety harness and lanyard

**17.59** Under the requirements of the Work at Height Regulations, what must the **minimum** width of a working platform be?

- ☐ Suitable and sufficient for the job in hand
- ☐ Two scaffold boards wide
- ☐ Three scaffold boards wide
- ☐ Four scaffold boards wide

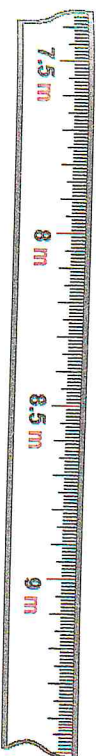
**17.60** When do the Work at Height Regulations require a working platform to be inspected by a competent person?

- ☐ After it has been erected and then at monthly intervals
- ☐ After it has been erected and then at intervals not exceeding 10 days
- ☐ Only after it has been erected
- ☐ After it has been erected and then at intervals not exceeding seven days

**17.61** What is the advantage of using safety nets rather than a harness and fall-arrest lanyard?

- ☐ Safety nets do not need inspecting
- ☐ Workers' lanyards can get entangled with other workers' lanyards
- ☐ Safety nets provide collective fall protection
- ☐ Safety nets can be rigged by anyone

**17.62** What is the **maximum** vertical height that a fixed ladder can be climbed, before an intermediate landing place is required?



**17.63** What should you do if you notice that operatives working above a safety net are dropping off-cuts of material and other debris into the net?

- ☐ Nothing, as the debris is all collecting in one place
- ☐ Ensure that the net is cleared of debris weekly
- ☐ Have the net cleared and inspected, then ensure it is not allowed to happen again
- ☐ Ensure that the net is cleared of debris daily

**17.65** When putting people to work above public areas, what should be your **first** consideration?

- ☐ To minimise the number of people below at any one time
- ☐ To prevent complaints from the public
- ☐ To let the public know what you are doing
- ☐ To prevent anything falling onto people below

**17.64** What should be included in a method statement for working at height? Give **three** answers.

- You will be asked to 'drag and drop' your answers
- ☐ How falls are to be prevented
- ☐ Who will supervise the job on site
- ☐ How much insurance cover will be required
- ☐ The cost of the job and the time it will take
- ☐ The sequence of operations and the equipment to be used



17.66 Ideally, where should a safety net be rigged?

- ☐ Immediately below where you are working
- ☐ 2 m below where you are working
- ☐ 6 m below where you are working
- ☐ At any height below the working position

17.67 What **must** edge protection be designed to do?

- ☐ Allow persons to work on both sides of it
- ☐ Secure tools and materials close to the edge
- ☐ Warn people where the edge of the roof is
- ☐ Prevent people and materials from falling

17.68 When should guard-rails be fitted to a working platform?

- ☐ If it is possible to fall 2 m
- ☐ At any height if a fall could result in an injury
- ☐ If it is possible to fall 3 m
- ☐ Only if materials are being stored on the working platform

17.69 The Beaufort Scale is important when working at height externally. What does it measure?

- ☐ Air temperature
- ☐ The load-bearing capacity of a flat roof
- ☐ Wind speed
- ☐ The load-bearing capacity of a scaffold

17.70 A design feature of some airbags used for fall arrest is a controlled leak rate. If you are using these, what **must** you ensure about the inflation pump?

- ☐ It must be electrically powered
- ☐ It must be switched off from time to time to avoid over-inflation
- ☐ It must run all the time while work is carried out at height
- ☐ It must be switched off when the airbags are full

17.71 Why is it dangerous to use inflatable airbags for fall arrest if they are too big for the area to be protected?

- ☐ They will exert a sideways pressure on anything that is containing them
- ☐ The pressure in the bags will cause them to burst
- ☐ The inflation pump will become overloaded
- ☐ They will not fully inflate

17.72 What is the **main** danger of leaving someone who has fallen suspended in a harness for too long?

- ☐ The anchorage point may fail
- ☐ They may try to climb back up the structure and fall again
- ☐ They may suffer loss of consciousness and further injury
- ☐ It is a distraction for other workers

### 01 General responsibilities

1.01	D	1.15	D
1.02	B	1.16	B
1.03	C	1.17	A, E
1.04	D, E	1.18	A
1.05	D	1.19	D
1.06	C	1.20	B
1.07	B, D	1.21	A
1.08	A, E	1.22	B
1.09	A	1.23	D
1.10	A	1.24	D
1.11	A	1.25	A
1.12	C	1.26	D
1.13	B	1.27	D
1.14	A		

### 02 Accident reporting and recording

2.01	C	2.11	A
2.02	B	2.12	A
2.03	D	2.13	C
2.04	B, E	2.14	B
2.05	A, D	2.15	B, C
2.06	A	2.16	A, B
2.07	B	2.17	C
2.08	A	2.18	D
2.09	B	2.19	C
2.10	B		

### 03 First aid and emergency procedures

3.01	A	3.11	D
3.02	A, B	3.12	A
3.03	B, C	3.13	C
3.04	B, C	3.14	A
3.05	C	3.15	A
3.06	A, B	3.16	C
3.07	D	3.17	B
3.08	A	3.18	B
3.09	D	3.19	C
3.10	D	3.20	C

### 04 Personal protective equipment

4.01	D	4.15	D
4.02	D	4.16	
4.03	B		
4.04	B		
4.05	D		
4.06	A	4.17	A
4.07	A	4.18	C
4.08	C	4.19	D
4.09	B	4.20	B
4.10	C	4.21	D
4.11	A	4.22	Face
4.12	D		
4.13	D		
4.14	B		





## 05 Environmental awareness and waste control

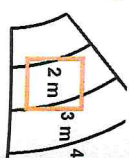
5.01	D	5.15	B
5.02	B	5.16	D, E
5.03	A, B	5.17	B, C
5.04	C	5.18	B
5.05	A, C, E	5.19	A
5.06	A, B	5.20	D
5.07	B	5.21	C, E
5.08	D	5.22	B
5.09	D, E	5.23	A
5.10	Broken bricks Non-hazardous Untreated timber off-cuts Non-hazardous Flourescent light tubes Hazardous Oil-based paint Hazardous	5.24	A
		5.25	B
		5.26	D
		5.27	D
5.11	D	5.28	D
5.12	B, D	5.29	D
5.13	D	5.30	B
5.14	C		

## 06 Dust and fumes (Respiratory hazards)


6.01	D	6.26	D
6.02	A, C	6.27	A
6.03	A, B	6.28	A
6.04	D	6.29	B
6.05	A	6.30	A, B
6.06	B	6.31	D
6.07	A	6.32	C
6.08	A	6.33	C
6.09	A	6.34	A, B
6.10	A	6.35	D, E
6.11	A	6.36	D, E
6.12	A	6.37	B
6.13	B	6.38	D
6.14	B	6.39	C
6.15	C	6.40	C
6.16	B	6.41	C
6.17	C	6.42	A, B
6.18	A	6.43	B
6.19	D	6.44	A
6.20	C	6.45	A
6.21	C	6.46	D
6.22	D	6.47	A, E
6.23	C	6.48	B
6.24	A	6.49	D
		6.50	A
		6.51	A, D
		6.52	A
6.25	B	6.53	D



# 07 Noise and vibration

7.01	C, D	7.14	2 m	
7.02	D			
7.03	C			
7.04	C			
7.05	C	7.15		D
7.06	B	7.16		D
7.07	C	7.17		B
7.08	B, D, E	7.18		C
7.09	B	7.19		D
7.10	C	7.20		D
7.11	C	7.21		C
7.12	C	7.22		C
7.13	A, B	7.23		A
		7.24		A, B

# 08 Health and welfare





8.01	A	8.13		A
8.02	B	8.14		D
8.03	B	8.15		D
8.04	A	8.16		B
8.05	C	8.17		B
8.06	C	8.18		C
8.07	D	8.19	Sharps	
8.08	A, D			
8.09	D			
8.10	D			
8.11	C	8.20		B
8.12	C	8.21		D

# 08 Health and welfare (continued)

8.22	D	8.46	B
8.23	A	8.47	D
8.24	C, E	8.48	D
8.25	B	8.49	D
8.26	B	8.50	A
8.27	D	8.51	D
8.28	D	8.52	A
8.29	D	8.53	A
8.30	B	8.54	B
8.31	A	8.55	C
8.32	B	8.56	D
8.33	B	8.57	A
8.34	A	8.58	B
8.35	B	8.59	B
8.36	D	8.60	A
8.37	A	8.61	D
8.38	A	8.62	A
8.39	A	8.63	C
8.40	B	8.64	B
8.41	A	8.65	D
8.42	C	8.66	A
8.43	B	8.67	B
8.44	A	8.68	C
8.45	B		



## 09 Manual handling

9.01	B	
9.02	C	
9.03	B	
9.04	B	
9.05	B, E	
9.06	A	
9.07	C	
9.08	B	
9.09	C	
9.10	A	
9.11		Back
9.12	B	
9.13	A, B, D	
9.14	C, E	
9.15	A, C, D	
9.16	A	
9.17	A	
9.18	B	
9.19	C	
9.20	C	
9.21	B	
9.22	A	

## 10 Safety signs

	C	D
10.01	10.03	
10.02	A, B, E	

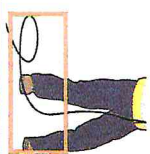
## 11 Fire prevention and control

II.01	C, E	II.10	C
II.02	D, E	II.11	B
II.03	C	II.12	B, C
II.04	A	II.13	1-C, 2-A, 3-B, 4-D
II.05	B	II.14	A
II.06	A, B, D	II.15	A
II.07	A	II.16	A
II.08	D	II.17	B
II.09	C, D	II.18	B

## 12 Electrical safety, tools and equipment

12.01	B	12.12	B	B
12.02	D	12.13	D	D
12.03	D, E	12.14	D	D
12.04	D	12.15	D	D
12.05	C	12.16	B	B
12.06	B	12.17	B, E	B, E
12.07	B	12.18	B, D	B, D
12.08	A	12.19	A, D	A, D
12.09	D	12.20	B	B
12.10	D	12.21	C	C
12.11	D			

## 12 Electrical safety, tools and equipment (continued)



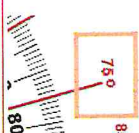
12.22		12.28	B
		12.29	B
		12.30	C
		12.31	B, D, E
12.23	A	12.32	A, C, D
12.24	B	12.33	A
12.25	C	12.34	C, D
12.26	A	12.35	D
12.27	D		

## 13 Site transport and lifting operations

13.01	C	13.20	C
13.02	C	13.21	D
13.03	A	13.22	B
13.04	B	13.23	D
13.05	A	13.24	D
13.06	D	13.25	B
13.07	C	13.26	A
13.08	C	13.27	C
13.09	B	13.28	A
13.10	B	13.29	B
13.11	C	13.30	B
13.12	A	13.31	D
13.13	A	13.32	C
13.14	B	13.33	A
13.15	A	13.34	A
13.16	B	13.35	C
13.17	C	13.36	B
13.18	A	13.37	B
13.19	A, D		

## 14 Working at height

14.01	B	14.07	75°
14.02	A		85°
14.03	D		76°
14.04	D		80°
14.05	B	14.08	C
14.06	B	14.09	D
		14.10	A





**14 Working at height (continued)**

14.11	D	14.35	A
14.12	A	14.36	B
14.13	A	14.37	D
14.14	D	14.38	B
14.15	A	14.39	A
14.16	A	14.40	D
14.17	C	14.41	D
14.18	B	14.42	C
14.19	B	14.43	A
14.20	B	14.44	B
14.21	B	14.45	B
14.22	B	14.46	C
14.23	D	14.47	D
14.24	C	14.48	D
14.25	C	14.49	B
14.26	A	14.50	A
14.27	A	14.51	C
14.28	C	14.52	C
14.29	D	14.53	C
14.30	C	14.54	B
14.31	B	14.55	A
14.32	B, D	14.56	A
14.33	A	14.57	A
14.34	A	14.58	B

**15 Excavations and confined spaces**

15.01	A	15.11	C
15.02	C	15.12	D
15.03	D	15.13	A, D
15.04	D	15.14	D
15.05	B	15.15	C
15.06	A	15.16	A
15.07	D	15.17	C
15.08	C	15.18	D
15.09	B	15.19	B
15.10	A, B, D		

**16 Hazardous substances**

16.01	C	16.10	D
16.02	A	16.11	D
16.03	D	16.12	C
16.04	B	16.13	B
16.05	D	16.14	D
16.06	D	16.15	C
16.07	A	16.16	A
16.08	D	16.17	A
16.09	C	16.18	D

## 17 Supervisory

17.01	A	17.29	A
17.02	B	17.30	A
17.03	D	17.31	B
17.04	B	17.32	A
17.05	B	17.33	A
17.06	A	17.34	B
17.07	A, E	17.35	B
17.08	C	17.36	B
17.09	B, E	17.37	B
17.10	C	17.38	A
17.11	B	17.39	D
17.12	D	17.40	D
17.13	B	17.41	D
17.14	B	17.42	A
17.15	C	17.43	C
17.16	C	17.44	C
17.17	A	17.45	D
17.18	B	17.46	D
17.19	B	17.47	D
17.20	A	17.48	B
17.21	B	17.49	470 mm
17.22	A, B		
17.23	C		
17.24	C		
17.25	C	17.50	950 mm
17.26	B		
17.27	D		
17.28	B		



## 17 Supervisory (continued)

17.51	B	17.62	9 m
17.52	B		
17.53	B		
17.54	D		
17.55	C	17.63	C
17.56	B	17.64	A, B, E
17.57	A	17.65	D
17.58	D	17.66	A
17.59	A	17.67	D
17.60	D	17.68	B
17.61	C	17.69	C
		17.70	C
		17.71	A
		17.72	C



## 18 Demolition

18.01	B	18.10	C
18.02	C	18.11	D
18.03	A	18.12	A
18.04	B	18.13	B
18.05	C	18.14	B
18.06	B	18.15	B
18.07	3 m	18.16	D
		18.17	D
		18.18	A
		18.19	A
18.08	B	18.20	B
18.09	D	18.21	C





## 18 Demolition (continued)

18.22	D	18.32	C
18.23	B	18.33	D
18.24	C	18.34	D
18.25	C	18.35	A
18.26	A	18.36	D
18.27	B	18.37	A
18.28	B, C	18.38	D
18.29	A	18.39	B
18.30	B	18.40	C
18.31	C	18.41	C

## 19 Highway works

19.01	A	19.17	B, E
19.02	B, D	19.18	C
19.03	B, C	19.19	C
19.04	D	19.20	C
19.05	D	19.21	A
19.06	B	19.22	B
19.07	D	19.23	C
19.08	B	19.24	A, E
19.09	A	19.25	B
19.10	D	19.26	B
19.11	C	19.27	C
19.12	D	19.28	A
19.13	A	19.29	C
19.14	B	19.30	B
19.15	C	19.31	B
19.16	B	19.32	B, E

## 19 Highway works (continued)

19.33	C	19.43	B
19.34	A	19.44	D
19.35	C	19.45	B
19.36	D	19.46	D
19.37	C	19.47	D
19.38	A	19.48	B
19.39	B	19.49	D
19.40	B	19.50	D
19.41	C	19.51	A
19.42	C	19.52	B

## 20 Specialist work at height

20.01	A, C, E	20.14	C
20.02	B	20.15	A
20.03	C	20.16	C
20.04	C	20.17	C
20.05	A	20.18	C, D
20.06	C	20.19	B
20.07	C	20.20	D
20.08	D	20.21	D
20.09	D	20.22	B
20.10	470 m	20.23	C
		20.24	D
		20.25	C
		20.26	B
20.11	B	20.27	B
20.12	C	20.28	B
20.13	B	20.29	C



**20 Specialist work at height (continued)**

20.30	D	20.39	D
20.31	A	20.40	B
20.32	C	20.41	A
20.33	C	20.42	A
20.34	D	20.43	B
20.35	D	20.44	C
20.36	B, D, E	20.45	A
20.37	D	20.46	C
20.38	C, E	20.47	C

**21 Lifts and escalators**

21.01	B	21.18	B
21.02	D	21.19	C
21.03	A	21.20	B
21.04	D	21.21	A
21.05	A	21.22	C
21.06	B	21.23	A, C
21.07	C	21.24	A
21.08	D	21.25	B
21.09	B	21.26	A
21.10	A	21.27	C
21.11	B	21.28	C
21.12	B	21.29	D
21.13	C	21.30	A
21.14	C	21.31	B
21.15	A	21.32	A
21.16	B	21.33	B
21.17	B	21.34	A

**21 Lifts and escalators (continued)**

21.35	A	21.43	E
21.36	C	21.44	E
21.37	B	21.45	E
21.38	A	21.46	F
21.39	C	21.47	E
21.40	B	21.48	F
21.41	A	21.49	F
21.42	C		

**22 Tunnelling**

22.01	B	22.19	I
22.02	C	22.20	I
22.03	B	22.21	I
22.04	C, E	22.22	I
22.05	C	22.23	
22.06	D	22.24	
22.07	C	22.25	
22.08	D	22.26	A,
22.09	C	22.27	A,
22.10	B	22.28	
22.11	B, E	22.29	
22.12	B	22.30	
22.13	D	22.31	
22.14	B	22.32	
22.15	B	22.33	
22.16	D	22.34	
22.17	D	22.35	B,
22.18	A	22.36	