# CP Construction Plant CS Competence Scheme Theory Tost Ouestions Cont

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# **CP** Construction Plant **CS** Competence Scheme

#### **Technical Test Theory**

No.	Question
1	Describe ONE physical method of checking that the attachment is fully secured to the coupler prior to work.
2	What is the typical working pressure of an air-operated breaker?
3	Why must the seat belt be worn, even with the cab door closed?
4	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
5	The operator has to fit and use a new bucket using a quick-hitch coupler that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
6	What problems and hazards can soft ground cause to a loaded loader compressor?
7	What THREE main duties of The Health and Safety at Work Act must employees follow?
8	Explain ALL visual checks that must be carried out on all types of quick hitch bucket attaching systems before use.
9	Why should air-hosing length be kept to a minimum?
10	a) What is the purpose of a Method Statement and b) what is required of the operator?
11	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
12	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
13	If the operator has to refill the fuel tank, state TWO precautions to ensure cleanliness of the system.
14	The operator is asked to tip material into a trench. State FIVE different requirements that must be considered or implemented before tipping commences.
15	An operator has to travel the machine on the public highway. List SIX requirements that must be followed.

# **CP** Construction Plant **CS** Competence Scheme

#### **Technical Test Theory**

No.	Question
16	What is regarded as the most productive position for a vehicle to be loaded to be in when being loaded from a stockpile?
17	Name THREE conditions that mirrors on the machine must be in.
18	Why should a loader compressor be re-fuelled at the end of the day?
19	In what situation does a hard hat NOT need to be worn when operating a loader compressor?
20	When working in a confined area or space, name THREE hazards that can occur.
21	Give THREE possible reasons why loader compressors should not stray off the designated haul routes.
22	How is a compressor output calculated?
23	Who should determine the maximum load that should be placed into the body of a vehicle being loaded?
24	Apart from the operator, who else may need to use the machine's Operator's Manual?
25	State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
26	Give TWO reasons why the loader compressor operator should have an understanding of the type of material being loaded.
27	What is the definition of, or how can a hazard be described?
28	Where should the Operator's Manual be kept and why?
29	Why are plant operators generally regarded as 'safety-critical' workers?
30	If the loader compressor is being travelled or working on the public highway, including adjacent pavement and verges, The Road Traffic Act applies.  a) What type of licence and which classes should the operator hold and  b) what is the minimum age allowed?

# **CP** Construction Plant **CS** Competence Scheme

#### **Technical Test Theory**

No.	Question
31	If using a compressed air tool to break up a concrete type surface, list FIVE items of PPE that must be worn.
32	Give FOUR reasons that may cause the loader compressor to tip over sideways.
33	What may happen if the load is tipped onto a downward slope?
34	List SIX typical subject areas that should be covered in a site induction.
35	Using the Operator's Manual, state the figure for the tyres' operating pressure.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
36	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
37	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or principal contractor.
38	What is the purpose of the compressor's pressure relieve valve?
39	What is a possible consequence of using a tyre with a deep cut in the sidewall?
40	Whenever possible, who should decide the positioning of a vehicle to be loaded?
41	If checking the oil level using a dipstick, why must gloves be worn?
42	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
43	How can a qualification or card benefit a plant operator?
44	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
45	What is the purpose of a risk assessment?

No.	Question
46	If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?
47	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
48	If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
49	When air is compressed, what fluid is produced?
50	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and  b) state FOUR actions to be considered by the operator before loading commences?
51	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
52	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
53	On a semi-automatic quick-hitch bucket attaching system: a) what is the purpose of the safety pin and b) what checks MUST be made to the pin before use?
54	a) What is meant by 'white finger' and b) name TWO methods of reducing the effect?
55	What is the purpose of a roll or ROPS frame?
56	Before manually changing any bucket:  a) Where should the bucket be positioned (in relation to the ground) before removing the final pin and b) explain why?

No.	Question
1	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
2	Describe ONE method of how to adjust a cone-type crusher to produce the desired aggregate size.
3	As far as is reasonably practical, where should crushing operations be kept clear of?
4	List TWO items that should be considered if the operator is working alone for long periods.
5	If checking the oil level using a dipstick, why must gloves be worn?
6	a) What is the minimum distance allowed near open trenches when travelling with a mobile crusher and b) explain why?
7	What THREE main duties of the Health and Safety at Work Act must employees follow?
8	a) Which part of the crusher applies loading or pressure to the ground and b) name ONE way that pressure can be reduced.
9	What is the meaning of this hand signal (being demonstrated by the Tester)?
10	Give TWO reasons why the operator should have an understanding of the type of material being loaded for crushing.
11	The operator has to use a new type of crusher that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
12	If a crusher has appeared to stall, what are the THREE initial steps to take before remedial work starts?
13	What is the purpose of a risk assessment?
14	Why should the engine speed be set to the manufacturer's recommendations on magnet-equipped machines?
15	What TWO problems can wet weather cause?

No.	Question
16	If radios are to be used during the crushing operations, what FOUR actions and checks must be made by the loading and crusher operators before use?
17	Where should the crusher's Operator's Manual be kept and why?
18	Apart from the operator, who else may need to use the machine's Operator's Manual?
19	Name: a) THREE differences between 'cone' and 'jaw'-type crushers and b) ONE suitable application for each.
20	Why is it recommended to leave a layer of material in the feed hopper during loading?
21	The crusher operator has been asked to drive a mobile crusher onto a transporter/trailer.  a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences.
22	During an unblocking activity, even though the crusher may be switched off: a) what else must be done and b) why?
23	When using water suppression, where should the water be applied?
24	Explain SIX requirements to be taken into account when positioning a crusher prior to work.
25	List SIX typical subject areas that should be covered in a site induction.
26	What FOUR steps should initially be taken should a crusher be blocked before remedial work starts?
27	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
28	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
29	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
30	Before leaving the machine for a rest break, after switching off the machine, what final action must be carried out?



No.	Question
31	What are the requirements for the ramps that are to be used by loading shovels loading the crusher?
32	What problems and hazards can soft ground cause when travelling a mobile unit across a site?
33	Why are plant operators generally regarded as 'safety-critical' workers?
34	What are the THREE actions or stages that a crusher operator undertakes during pre-use inspections?
35	Name TWO things that can cause 'bridging'.
36	Name FOUR possible causes for blockages in crushers.
37	If parking a mobile unit away from the working area, name THREE places where the machine should NOT be parked.
38	What checks should be made to stockpiled materials at the end of a working day?
39	a) What is the purpose of a Method Statement and b) what is required of the operator?
40	a) When would a harness be used and b) what determines how or what type is used?
41	What are the requirements for the standing for loading excavators?
42	Name FIVE items of specific PPE applicable to crusher operations.
43	Why should a crusher be re-fuelled at the end of the day?
44	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or principal contractor.
45	Give TWO examples of where The Work at Height Regulations 1995 may apply to crusher operations.

No.	Question
46	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
47	When is it permitted to enter the crushing chamber area?
48	For mobile crushers, when MUST a banksman/signaller be used before moving a mobile crusher?
49	What is the purpose of the sizing bars on the crusher feed?
50	a) What is the purpose of a magnetic separator and b) where would it be located?
51	Name the FOUR key causes of accidents that occur during crushing operations.
52	Apart from water, name THREE other methods that can be used to minimise dust.
53	If setting up to work near a pedestrianised area, state THREE factors that need to be taken into account.
54	Using the Operator's Manual, state the procedure for adjusting conveyor belt tension.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
55	What is the definition of, or how can a hazard be described?
56	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
57	Name FIVE possible dangers to health if operating the crusher from the platform.
58	A previous, traditional method of clearing blockages was the use of a wedge or mouse. Explain why this method must not be used.
59	Name THREE requirements of the Noise at Work Act 1994 that apply to crusher operations.



No.	Question
60	How can a qualification or card benefit a plant operator?
61	Give THREE reasons that may cause a mobile crusher to tip over sideways during travel.
	If a trench has a depth of 2 metres: a) What is the minimum distance to maintain from the edge of the trench when forming stockpiles and b) explain why?
60	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
64	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.

No.	Question
1	Give THREE reasons that may cause a mobile screener to tip over sideways during travel.
2	What is the purpose of the sizing bars on the hopper feed?
3	Using the Operator's Manual, state the procedure for adjusting conveyor belt tension.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
4	Explain SIX requirements to be taken into account when positioning a screener prior to work.
5	The operator has to use a new type of screener that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
6	a) Which part of the screener applies loading or pressure to the ground and b) name ONE way that pressure can be reduced.
7	What TWO problems can wet weather cause?
8	Name FIVE items of specific PPE applicable to screener operations.
9	How should the screener be set up to meet the production output specification?
10	Give TWO examples of where The Work at Height Regulations may apply to screener operations.
11	The screener operator has been asked to drive a mobile screener onto a transporter/trailer.  a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences.
12	As far as is reasonably practical, where should screening operations be kept clear of?
13	a) What is the purpose of a Method Statement and b) what is required of the operator?
14	If a trench has a depth of 2 metres:  a) what is the minimum distance to maintain from the edge of the trench when forming stockpiles and b) explain why?
15	Name the FOUR key causes of accidents that could occur during screening operations.

No.	Question
16	What THREE main duties of the Health and Safety at Work Act must employees follow?
17	Name THREE requirements of the Noise at Work Act 1994 that apply to screener operations.
18	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
19	If setting up to work near a pedestrianised area, state THREE factors that need to be taken into account.
20	Apart from water, name THREE other methods that can be used to minimise dust.
21	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
22	What are the THREE actions or stages that a screener operator undertakes during pre-use inspections?
23	What is the definition of, or how can a hazard be described?
24	What problems and hazards can soft ground cause when travelling a mobile unit across a site?
25	What FIVE steps should be initially taken should a screener be blocked before remedial work starts?
26	What is the meaning of this hand signal (being demonstrated by the Tester)?
27	a) When would a harness be used and b) what determines how or what type is used?
28	a) Where is the spreader located and b) what is its purpose?
29	If radios are to be used during the screening operations, what FOUR actions and checks must be made by the loading and screener operators before use?
30	When is it permitted to enter the screening chamber area?

No.	Question
31	List TWO items that should be considered if the operator is working alone for long periods.
32	Before leaving the machine for a rest break, after switching off the machine, what final action must be carried out?
33	a) What is the minimum distance allowed near open trenches when travelling with a mobile screener and b) explain why?
34	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
35	If fitted, when using water suppression, where should the water be applied?
36	Give TWO reasons why the operator should have an understanding of the type of material being loaded for screening.
37	Why are plant operators generally regarded as 'safety-critical' workers?
38	What checks should be made to stockpiled materials at the end of the working day?
39	Give THREE possible causes of screen-box overload.
40	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
41	a) What is meant by roll back and b) how can it be prevented?
42	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
43	During an unblocking activity, even though the screener may be switched off: a) what else must be done and b) why?
44	How does a trommel-type screener segregate material?
45	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?



No.	Question
46	How can a qualification or card benefit a plant operator?
47	Why should a screener be re-fuelled at the end of the day?
48	What are the requirements for the ramps that are to be used by loading shovels loading the screener?
49	What is the effect on the screening operation if the screen box is raised?
50	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or principal contractor.
51	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
52	Apart from the operator, who else may need to use the machine's Operator's Manual?
53	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
54	What are the requirements for the standing for loading excavators?
55	For mobile screeners, when MUST a banksman/signaller be used before moving a screener?
56	If checking the oil level using a dipstick, why must gloves be worn?
57	List SIX typical subject areas that should be covered in a site induction.
58	Where should the screener's Operator's Manual be kept and why?
59	What is the purpose of a risk assessment?



No.	Question
60	Why should discharge stockpiles not be allowed to reach conveyor height?
61	Name THREE types of conveyor that may be used on a screener.
62	If parking a mobile unit away from the working area, name THREE places where the machine should NOT be parked.

No.	Question
1	If setting up to work near a pedestrianised area, state THREE factors that need to be taken into account.
2	What is the definition of, or how can a hazard be described?
3	How does a trommel-type screener segregate material?
4	As far as is reasonably practical, where should crushing and screening operations be kept clear of?
5	a) What is the purpose of a Method Statement and b) what is required of the operator?
6	Give THREE reasons that may cause a mobile crusher and/or screener to tip over sideways during travel.
7	What is the purpose of a risk assessment?
8	Name FIVE items of specific PPE applicable to crusher and screener operations.
9	What is the meaning of this hand signal (being demonstrated by the Tester)?
10	What is the effect on the screening operation if the screen box is raised?
11	If radios are to be used during the processing operations, what FOUR actions and checks must be made by the loading crusher and screener operators before use?
12	During an unblocking activity, even though the crusher and screener may be switched off: a) what else must be done and b) why?
13	When using water suppression, where should the water be applied?
14	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
15	If parking a mobile unit away from the working area, name THREE places where a crusher and screener should NOT be parked.

No.	Question
16	Apart from water, name THREE other methods that can be used to minimise dust.
17	The operator has to use a new type of crusher and/or screener that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
18	List TWO items that should be considered if the operator is working alone for long periods.
19	a) What is the purpose of a magnetic separator and b) where would it be located?
20	How should the screener be set up to meet the production output specification?
21	Why should a crusher or screener be re-fuelled at the end of the day?
22	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
23	If a crusher or screener has appeared to stall, what are the THREE initial steps to take before remedial work starts?
24	If checking the oil level using a dipstick, why must gloves be worn?
25	Explain SIX requirements to be taken into account when positioning a crusher and a screener prior to work.
26	a) When would a harness be used and b) what determines how or what type is used?
27	What are the requirements for the standing for loading excavators?
28	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
29	What are the THREE actions or stages that a crusher and a screener operator undertakes during pre-use inspections?
30	What is the purpose of the sizing bars on the crusher and screener feed?

No.	Question
31	Why is it recommended to leave a layer of material in the feed hopper during the loading of a crusher?
32	What FOUR steps should initially be taken should a crusher be blocked before remedial work starts?
33	a) What is the minimum distance allowed near open trenches when travelling with a mobile crusher and/or screener and b) explain why?
34	What problems and hazards can soft ground cause when travelling a mobile unit across a site?
35	What are the requirements for the ramps that are to be used by loading shovels loading the crusher?
36	If a trench has a depth of 2 metres:  a) What is the minimum distance to maintain from the edge of the trench when forming stockpiles and b) explain why?
37	a) What is meant by roll back and b) how can it be prevented?
38	Name the FOUR key causes of accidents that occur during crushing and screening operations.
39	Using one of the Operator's Manuals, state the procedure for adjusting conveyor belt tension on a crusher or screener.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
40	a) Which part of the crusher and/or screener applies loading or pressure to the ground and b) name ONE way that pressure can be reduced.
41	Apart from the operator, who else may need to use the machine's Operator's Manual?
42	Before leaving the crusher or screener for a rest break, after switching off the machines, what final action must be carried out?
43	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
44	What TWO problems can wet weather cause when crushing and screening?
45	Give TWO reasons why the operator should have an understanding of the type of material being loaded for screening.

No.	Question
46	For mobile crushers and screeners, when MUST a banksman/signaller be used before moving the machine(s)?
47	List SIX typical subject areas that should be covered in a site induction.
48	Name: a) THREE differences between 'cone' and 'jaw'-type crushers and b) ONE suitable application for each.
49	Describe ONE method of how to adjust a cone-type crusher to produce the desired aggregate size.
50	Name FIVE possible dangers to health if operating the crusher and screener from the platform.
51	What THREE main duties of the Health and Safety at Work Act must employees follow?
52	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or principal contractor.
53	Give TWO examples of where The Work at Height Regulations 1995 may apply to crusher and screener operations.
54	Where should the crusher's and the screener's Operator's Manuals be kept and why?
55	Why should the engine speed be set to the manufacturer's recommendations on magnet-equipped machines?
56	When is it permitted to enter the crushing and screening chamber areas?
57	Name THREE types of conveyor that may be used on a screener.
58	Name TWO things that can cause 'bridging' when crushing material.
59	The operator has been asked to drive a mobile crusher and/or screener onto a transporter/trailer.  a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences.



No.	Question
60	Give TWO reasons why the operator should have an understanding of the type of material being loaded for crushing.
61	Name THREE ways in which an operator can minimise their impact upon the environment whilst using a crusher and screener.
62	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
63	Name FOUR possible causes for blockages in crushers.
64	Using one of the Operator's Manuals not used in question 18, state the cold-starting procedure for the crusher or screener.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
65	Why are plant operators generally regarded as 'safety-critical' workers?
66	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
67	A previous, traditional method of clearing blockages was the use of a wedge or mouse. Explain why this method must not be used.
68	How can a qualification or card benefit a plant operator?
69	Give THREE possible causes of screen-box overload.
70	What checks should be made to stockpiled materials at the end of a working day?
71	Name THREE requirements of the Noise at Work Act 1994 that apply to crusher and screener operations.



No.	Question
1	a) Which part of the concrete pump applies loading or pressure to the ground and b) how can that pressure be reduced?
2	What is the purpose of a risk assessment?
3	Before towing a trailer-mounted pump into position, name SIX factors to be taken into account.
4	Where must waste from the cleaning process be deposited?
5	a) What additional items (over and above standard site wear) of PPE are required when cleaning out concrete pumps and b) what characteristics must the PPE have?
6	What piece of information would a client need from pump hirer/owner before a hire?
7	If radios are to be used during a pumping operation, what FIVE actions and checks must be made by the concrete pump operator before use?
8	Name THREE ways that a concrete pump operator can contribute in ensuring repeat business with the client or principal contractor.
9	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
10	What effect does wet concrete have if it comes into contact with the skin, particularly over long periods of exposure?
11	Why must the thickness of steel pipelines be checked on a regular basis?
12	What is the function, if fitted, of the mixer paddles?
13	What is the difference between: a) a placement hose and b) a delivery hose?
14	On a piston-type pump, what is the purpose of the water box?
15	What is considered as the danger zone around the placement hose?



No.	Question
16	a) What is the purpose of a Method Statement and b) what is required of the operator?
17	What checks should be made to the couplers?
18	Why are those who operate pumps generally regarded as 'safety-critical' workers?
19	During pumping, if the operator (using a remote control) needs to leave the pump, what TWO things need to be ensured?
20	Name THREE places where the trailer should NOT be parked after completion of the pumping operation.
21	If the pump has to be lifted into the required position, name SIX factors to be taken into account prior to the lift taking place.
22	If a blockage occurs, what actions must be taken by the operator?
23	If the words STOP NOW are given to the concrete pump operator by radio during the pumping operation, what action must the operator take?
24	Before the start for work: a) How should signallers be identified and b) what should be agreed between the pump operator and a signaller?
25	If checking the oil level using a dipstick, why must gloves be worn?
26	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
27	On what basis are pipelines and couplers selected?
28	What are the THREE actions or stages that a concrete pump operator undertakes during pre-use inspections?
29	What can occur if the placement hose is longer than specified?
30	The operator has to use a new type of pump that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?



No.	Question
31	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
32	If setting up to pump concrete in a pedestrianised area, state THREE factors that need to be taken into account.
33	Describe at least THREE causes of blockages that may occur within the pipeline.
34	Before leaving the pump for a rest break, after switching off the pump, what final action must be carried out?
35	When working in a confined area or space, name THREE dangers that can be present.
36	What are the main component parts of a concrete mix?
37	Apart from the operator, who else may need to use the machine's User's Manual?
38	When setting up to work, what should be taken into account for the mixer vehicles?
39	What checks should be made to the transmitter of a remote-controlled pump before work?
40	How can a qualification or card benefit a concrete pump operator?
41	Name THREE possible underground hazards that may affect the stability of the trailer when in operation.
42	What is the meaning of this hand signal (being demonstrated by the Tester)?
43	What is the purpose of stabilisers on the concrete pump?
44	What is the purpose of the blanking piece?
45	During the pumping operation, part of the task cannot be carried out as detailed in the method statement.  a) What initially must happen to the operation and b) who authorises any changes?



No.	Question
46	When is it acceptable to use compressed air to clean out pipelines?
47	Using the Operator's Manual, state the tyres' operating pressure.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
48	What is the maximum allowable air pressure to clean out the pipes?
49	List SIX typical subject areas that should be covered in a site induction.
50	What is the purpose of pumping grout through the pipeline?
51	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
52	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
53	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
54	What is the definition of, or how can a hazard be described?
55	Using the Operator's Manual, state the starting procedure for the pump.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
56	Where should the User's Manual be kept and why?
57	What THREE main duties of The Health and Safety at Work Act must employees follow?
58	If pipelines have to be connected to scaffolding, what TWO factors must be ensured?



Piling Rig - Driven below 20 tonnes A45

No.	Question
1	Name THREE different types of driven pile.
2	What is meant by the term 'raking angle'?
3	What is the definition of, or how can a hazard be described?
4	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
5	When MUST a banksman or signaller be used before moving a rig?
6	Where should the Operator's Manual be kept and why?
7	In driven piling, what is meant by the 'drop height'?
8	Apart from the operator, who else may need to use the machine's Operator's Manual?
9	What are the THREE actions or stages that a rig operator undertakes during pre-use inspections?
10	Where would you find the dolly on a percussive driven hammer?
11	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
12	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
13	What is the purpose of counterweight(s) on the rig?
14	What are pre-cast piles most suitable for?
15	Why are driven piles generally used on contaminated sites?

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Piling Rig - Driven below 20 tonnes A45

No.	Question
16	Why are rig operators generally regarded as 'safety-critical' workers?
17	List FIVE checks that should be made to the tracks and running gear.
18	How can the noise level of the hammering operation be reduced on: a) pre-cast types and b) cast in-situ types?
19	What is meant by 'toeing in' when referring to the piling activity?
20	What is the purpose of a roll or ROPS frame?
21	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences?
22	What is the purpose of a cofferdam?
23	a) What is the purpose of a Method Statement and b) what is required of the operator?
24	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
25	Give THREE reasons that may cause the rig to overturn.
26	What is meant by the term 'refusal'?
27	a) What is the minimum distance allowed near an open excavation when travelling the rig and b) explain why?
28	If setting up to pile near a pedestrian footpath, state THREE precautions that could be adopted.
29	When working in a confined area or space: a) what danger can be present with regards to the counterweight of the machine, b) what is the recommended minimum distance and c) what measures must be implemented if the gap is less?
30	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?

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Piling Rig - Driven below 20 tonnes A45

No.	Question
31	Give TWO examples of where The Work at Height Regulations may apply to piling rig operations.
32	If the rig has to cross the public highway between two parts of a site, the Road Traffic Act applies.  a) What type of licence and which class should the operator hold and  b) what is the minimum age allowed?
33	A piling rig has been delivered to site, assembled and configured for work. What must be carried out before piling starts and by whom?
34	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
35	If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?
36	What is a 'driven cast in-situ' pile?
37	a) Which part of the rig applies loading or pressure to the ground and b) what needs to be in place to cope with the pressure.
38	During the piling operation, part of the task cannot be carried out as detailed in the method statement:  a) What initially must happen to the piling operation and b) who authorises any changes?
39	The operator has to use a new model of rig that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
40	What is meant by 'splicing'?
41	What does 'backdriving' mean?
42	Using the Operator's Manual, state the figure for setting the track tension.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
43	Why should a rig be re-fuelled at the end of the day?
44	When towing a power pack why should you never position yourself between the rig and the power pack?
45	When working in cellars or confined spaces: a) explain THREE precautions you must take to avoid a build up of fumes and b) why this is important?

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Piling Rig - Driven below 20 tonnes A45

No.	Question
46	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
47	How can a qualification or card benefit a rig operator?
48	If checking the oil level using a dipstick, why must gloves be worn?
49	What checks and procedures need to be made before a 'permit to dig' can be issued?
50	In what situation does a hard hat NOT need to be worn when operating a piling rig?
51	a) What is meant by the lifting capacity of the rig and b) who determines it?
52	Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
53	What is the purpose of a risk assessment?
54	Name THREE different types of driven hammers.
55	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
56	What is the function of the shoe (end-cap) as used in cast in-situ piling?
57	If the words STOP NOW are given to the rig operator by radio during the lift, what action must the operator take?
58	Name THREE ways that a rig operator can contribute in ensuring repeat business with the client or principal contractor.
59	If both travel levers are pushed forwards when the track motors are in front of the cab, in which direction would the machine move?
60	List SIX typical subject areas that should be covered in a site induction.

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Piling Rig - Driven below 20 tonnes A45

No.	Question
61	What THREE main duties of The Health and Safety at Work Act must employees follow?
62	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?

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#### Piling Rig - Driven above 20 tonnes A46

No.	Question
1	Why should a rig be re-fuelled at the end of the day?
2	Why are rig operators generally regarded as 'safety-critical' workers?
3	Name THREE ways that a rig operator can contribute in ensuring repeat business with the client or principal contractor.
4	Why are driven piles generally used on contaminated sites?
5	Where would you find the dolly on a percussive-driven hammer?
6	What is a 'driven cast in-situ' pile?
7	Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
8	When MUST a banksman or signaller be used before moving a rig?
9	What checks and procedures need to be made before a 'permit to dig' can be issued?
10	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
11	Where should the Operator's Manual be kept and why?
12	In what situation does a hard hat NOT need to be worn when operating a piling rig?
13	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
14	Using the Operator's Manual, state the figure for setting the track tension.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
15	What is the purpose of a risk assessment?

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#### Piling Rig - Driven above 20 tonnes A46

No.	Question
16	During the piling operation, part of the task cannot be carried out as detailed in the method statement:  a) what initially must happen to the piling operation and b) who authorises any changes?
17	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences?
18	A piling rig has been delivered to site, assembled and configured for work. What must be carried out before piling starts and by whom?
19	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
20	How can the noise level of the hammering operation be reduced on: a) pre-cast types and b) cast in-situ types?
21	What is meant by the term 'raking angle'?
22	What are pre-cast piles most suitable for?
23	List FIVE checks that should be made to the tracks and running gear.
24	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
25	What is the purpose of a roll or ROPS frame?
26	When working in a confined area or space: a) what danger can be present with regards to the counterweight of the machine, b) what is the recommended minimum distance and c) what measures must be implemented if the gap is less?
27	Name THREE different types of driven hammers.
28	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
29	List SIX typical subject areas that should be covered in a site induction.
30	What is meant by 'toeing in' when referring to the piling activity?



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No.	Question
31	Name THREE different types of driven pile.
32	a) What is meant by the lifting capacity of the rig and b) who determines it?
33	If checking the oil level using a dipstick, why must gloves be worn?
34	Give TWO examples of where The Work at Height Regulations may apply to piling rig operations.
35	a) Which part of the rig applies loading or pressure to the ground and b) what needs to be in place to cope with the pressure.
36	What is the definition of, or how can a hazard be described?
37	What THREE main duties of The Health and Safety at Work Act must employees follow?
38	The operator has to use a new model of rig that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
39	What is the purpose of a cofferdam?
40	What are the THREE actions or stages that a rig operator undertakes during pre-use inspections?
41	If the words STOP NOW are given to the rig operator by radio during the lift, what action must the operator take?
42	What is meant by 'splicing'?
43	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
44	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
45	Apart from the operator, who else may need to use the machine's Operator's Manual?

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Piling Rig - Driven above 20 tonnes A46

No.	Question
46	What is the purpose of counterweight(s) on the rig?
47	a) What is the minimum distance allowed near an open excavation when travelling the rig and b) explain why?
48	When towing a power pack why should you never position yourself between the rig and the power pack?
49	a) What is the purpose of a Method Statement and b) what is required of the operator?
50	If the rig has to cross the public highway between two parts of a site, the Road Traffic Act applies.  a) What type of licence and which class should the operator hold and  b) what is the minimum age allowed?
51	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
52	If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?
53	When working in cellars or confined spaces: a) explain THREE precautions you must take to avoid a build up of fumes and b) why this is important?
54	What is the function of the shoe (end-cap) as used in cast in-situ piling?
55	If setting up to pile near a pedestrian footpath, state THREE precautions that could be adopted.
56	If both travel levers are pushed forwards when the track motors are in front of the cab, in which direction would the machine move?
57	Give THREE reasons that may cause the rig to overturn.
58	What does 'backdriving' mean?
59	What is meant by the term 'refusal'?
60	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?



Piling Rig - Driven above 20 tonnes A46

No.	Question
61	How can a qualification or card benefit a rig operator?
62	In driven piling, what is meant by the 'drop height'?

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Piling Rig - Bored below 20 tonnes A47

No.	Question
1	Where should the Operator's Manual be kept and why?
2	The operator has to use a new model of rig that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
3	In what situation does a hard hat NOT need to be worn when operating a piling rig?
4	What is meant by a 'contiguous pile line'?
5	What checks and procedures need to be made before a 'permit to dig' can be issued?
6	Name THREE ways that a rig operator can contribute in ensuring repeat business with the client or principal contractor.
7	When MUST a banksman or signaller be used before moving a rig?
8	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
9	Why is bored piling more suitable for use within urban areas compared with a driven rig?
10	List FIVE checks that should be made to the tracks and running gear.
11	When are the auger gates allowed to be opened in the middle of a CFA operation?
12	Give FOUR reasons that may cause the rig to overturn.
13	a) What is the purpose of a Method Statement and b) what is required of the operator?
14	When working in a confined area or space: a) what danger can be present with regards to the counterweight of the machine, b) what is the recommended minimum distance and c) what measures must be implemented if the gap is less?
15	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?

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Piling Rig - Bored below 20 tonnes A47

No.	Question
16	When working in cellars or confined spaces: a) explain THREE precautions you must take to avoid a build up of fumes and b) why this is important?
17	Generally, what distance is the controlled or restricted zone around a CFA drilling operation?
18	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
19	How is the rotary auger of a bored rig or a CFA rig cleaned of soil?
20	What THREE main duties of The Health and Safety at Work Act must employees follow?
21	What is the function of the shoe/bung/end-cap/flap as used in CFA piling?
22	If both travel levers are pushed forwards when the track motors are in front of the cab, in which direction would the machine move?
23	List SIX typical subject areas that should be covered in a site induction.
24	a) What is meant by the lifting capacity of the rig winch and b) who determines it?
25	If the rig has to cross the public highway between two parts of a site, the Road Traffic Act applies.  a) What type of licence and which class should the operator hold and b) what is the minimum age allowed?
26	What is meant by the term 'refusal'?
27	How can a qualification or card benefit a rig operator?
28	What is the purpose of a bored pile wall (contiguous piles or secant wall)?
29	What are the THREE actions or stages that a rig operator undertakes during pre-use inspections?
30	When towing a power pack why should you never position yourself between the rig and the power pack?

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Piling Rig - Bored below 20 tonnes A47

No.	Question
31	On CFA rigs, if the auger cleaner is failing to clean off the spoil during extraction, what action should be taken?
32	a) Which part of the rig applies loading or pressure to the ground and b) what needs to be in place to cope with the pressure.
33	What is ODEX drilling?
34	Apart from the operator, who else may need to use the machine's Operator's Manual?
35	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
36	Why are rig operators generally regarded as 'safety-critical' workers?
37	Explain the purpose of the casings when piling or drilling.
38	If checking the oil level using a dipstick, why must gloves be worn?
39	a) What is the minimum distance allowed near an open excavation when travelling the rig and b) explain why?
40	During the piling operation, part of the task cannot be carried out as detailed in the method statement: a) What initially must happen to the piling operation and b) who authorises any changes?
41	When using a CFA rig, how does the operator ensure that the auger is vertical?
42	Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
43	What is the purpose of a roll or ROPS frame?
44	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
45	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.

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Piling Rig - Bored below 20 tonnes A47

No.	Question
46	Give TWO examples of where The Work at Height Regulations may apply to piling rig operations.
47	If setting up to pile near a pedestrian footpath, state THREE precautions that could be adopted.
48	A piling rig has been delivered to site, assembled and configured for work. What must be carried out before piling starts and by whom?
49	What is the definition of, or how can a hazard be described?
50	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
51	Why should a rig be re-fuelled at the end of the day?
52	Name TWO different types of bored piling methods.
53	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences?
54	If the words STOP NOW are given to the rig operator by radio during the lift, what action must the operator take?
55	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
56	What is the purpose of a risk assessment?
57	How is drive transmitted to the short auger?
58	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
59	If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?
60	What is the purpose of counterweight(s) on the rig?

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Piling Rig - Bored below 20 tonnes A47

No.	Question
61	Using the Operator's Manual, state the figure for setting the track tension.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.

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#### Piling Rig - Bored above 20 tonnes A48

No.	Question
1	When MUST a banksman or signaller be used before moving a rig?
2	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
3	Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
4	When towing a power pack why should you never position yourself between the rig and the power pack?
5	If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?
6	What is the function of the shoe/bung/end-cap/flap as used in CFA piling?
7	What is meant by the term 'refusal'?
8	a) Which part of the rig applies loading or pressure to the ground and b) what needs to be in place to cope with the pressure.
9	When working in cellars or confined spaces: a) explain THREE precautions you must take to avoid a build up of fumes and b) why this is important?
10	What are the THREE actions or stages that a rig operator undertakes during pre-use inspections?
11	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
12	Name TWO different types of bored piling methods.
13	What is the purpose of counterweight(s) on the rig?
14	a) What is the minimum distance allowed near an open excavation when travelling the rig and b) explain why?
15	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and  b) state FOUR actions to be considered by the operator before loading commences?

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Piling Rig - Bored above 20 tonnes A48

No.	Question
16	Give TWO examples of where The Work at Height Regulations may apply to piling rig operations.
17	Name THREE ways that a rig operator can contribute in ensuring repeat business with the client or principal contractor.
18	When using a CFA rig, how does the operator ensure that the auger is vertical?
19	What is the purpose of a bored pile wall (contiguous piles or secant wall)?
20	Give FOUR reasons that may cause the rig to overturn.
21	If the rig has to cross the public highway between two parts of a site, the Road Traffic Act applies. a) What type of licence and which class should the operator hold and b) what is the minimum age allowed?
22	What is the purpose of a risk assessment?
23	Apart from the operator, who else may need to use the machine's Operator's Manual?
24	During the piling operation, part of the task cannot be carried out as detailed in the method statement:  a) What initially must happen to the piling operation and b) who authorises any changes?
25	a) What is the purpose of a Method Statement and b) what is required of the operator?
26	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
27	If both travel levers are pushed forwards when the track motors are in front of the cab, in which direction would the machine move?
28	Why should a rig be re-fuelled at the end of the day?
29	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
30	If the words STOP NOW are given to the rig operator by radio during the lift, what action must the operator take?

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Piling Rig - Bored above 20 tonnes A48

No.	Question
31	A piling rig has been delivered to site, assembled and configured for work. What must be carried out before piling starts and by whom?
32	Where should the Operator's Manual be kept and why?
33	In what situation does a hard hat NOT need to be worn when operating a piling rig?
34	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
35	If setting up to pile near a pedestrian footpath, state THREE precautions that could be adopted.
36	What is ODEX drilling?
37	If checking the oil level using a dipstick, why must gloves be worn?
38	When are the auger gates allowed to be opened in the middle of a CFA operation?
39	Generally, what distance is the controlled or restricted zone around a CFA drilling operation?
40	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
41	Why are rig operators generally regarded as 'safety-critical' workers?
42	Using the Operator's Manual, state the figure for setting the track tension.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
43	What is the definition of, or how can a hazard be described?
44	What is meant by a 'contiguous pile line'?
45	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.

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Piling Rig - Bored above 20 tonnes A48

No.	Question
46	List FIVE checks that should be made to the tracks and running gear.
47	How is drive transmitted to the short auger?
48	The operator has to use a new model of rig that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
49	When working in a confined area or space:  a) what danger can be present with regards to the counterweight of the machine,  b) what is the recommended minimum distance and c) what measures must be implemented if the gap is less?
50	On CFA rigs, if the auger cleaner is failing to clean off the spoil during extraction, what action should be taken?
51	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
52	How can a qualification or card benefit a rig operator?
53	What is the purpose of a roll or ROPS frame?
54	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
55	How is the rotary auger of a bored rig or a CFA rig cleaned of soil?
56	a) What is meant by the lifting capacity of the rig winch and b) who determines it?
57	Why is bored piling more suitable for use within urban areas compared with a driven rig?
58	List SIX typical subject areas that should be covered in a site induction.
59	What checks and procedures need to be made before a 'permit to dig' can be issued?
60	Explain the purpose of the casings when piling or drilling.



Piling Rig - Bored above 20 tonnes A48

No.	Question
61	What THREE main duties of The Health and Safety at Work Act must employees follow?

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No.	Question
1	What is the recommended maximum distance between lashings on the length of a load?
2	If an item of plant is being loaded where it is known that the parking brake is not fully effective, what action must be taken?
3	State the maximum allowed speeds of a transporter loaded with a 13-tonne 360 degree excavator which is travelling on: a) motorway, b) dual carriageway (unrestricted) and c) single carriageway (unrestricted).
4	If towing a trailer, what class of licence is required?
5	Name FOUR items that must be displayed on a DoT-approved plating certificate.
6	On LGVs above 3.5 tonnes first used after January 2007: a) how many mirrors are required and b) where should they be positioned?
7	When are the most likely times that loads may move during transit in the transporter?
8	On start up, the air pressure on the vehicle is low. What actions must the transport driver carry out before work and during work?
9	When securing machines having hydraulically operated booms (e.g. 360 degree excavators etc.), what should be ensured when restraining?
10	What is the maximum width of a load before it becomes classed as a 'wide load'?
11	What is the difference between a low loader and a semi-trailer?
12	What problems and hazards can soft ground cause to a loaded transporter?
13	Many transporters have a turbo-charged engine.  a) What is the normal procedure before switching off the engine after working and b) what happens if the procedure is not followed?
14	How can a qualification or card benefit a transport driver?
15	What checks should be made to flat webbing slings before use?

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No.	Question
16	When working in a confined area or space, name THREE hazards that can occur.
17	Under what conditions can lashing chains be used for lifting operations?
18	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
19	What should be considered when securing a 360-degree excavator fitted with rubber tracks?
20	When a pick-up/transit-type vehicle is over 3.5 tonnes in weight, what is required with regard to testing requirements?
21	Why are those who load and unload plant generally regarded as 'safety-critical' workers?
22	What is a possible consequence of using a tyre with a deep cut in the sidewall?
23	Name THREE ways that a transport driver can contribute in ensuring repeat business with the client or principal contractor.
24	In general: a) what is the maximum angle that lashings should be restricted to and b) why?
25	a) What is the purpose of a Method Statement and b) what is required of the driver?
26	During the loading process, in terms of the load, what is the transporter driver responsible for?
27	What THREE pieces of information are needed to calculate axle loadings?
28	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
29	What is the difference between kerbside weight and unladen weight?
30	Before loading or unloading on the public highway, what specific measures must be considered?

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No.	Question
31	What length of retraining is required every five years for the Certificate of Professional Competence (CPC) scheme?
32	When loading, where is the optimum, or best position to place an item of plant?
33	What is the definition of, or how can a hazard be described?
34	If setting up to load or unload in a pedestrianised area, state THREE factors that need to be taken into account.
35	Give an example of 'road friendly' suspension.
36	If checking the oil level using a dipstick, why must gloves be worn?
37	Name SIX safety considerations when selecting a site for loading or unloading plant.
38	If the transport driver has to top up the engine oil, state TWO precautions to ensure cleanliness of the system.
39	Give THREE possible reasons why transporters should not stray off the designated travel routes.
40	Give TWO examples of where The Work at Height Regulations may apply to transporters.
41	Once the transporter is positioned, state SIX actions to be considered before loading commences.
42	What is meant by Maximum Authorised Mass (MAM)?
43	Where and why would packing be used?
44	Where should the vehicle's and/or transported machine's manual be kept and why?
45	If not indicated, the headroom under bridges in the UK is at least what height?

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No.	Question
46	Why should the centre of gravity of a load be in front of the rear axle of an articulated semi-trailer?
47	Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out?
48	What is the meaning of this hand signal (being demonstrated by the Tester)?
49	Give FIVE instances where lights should be fitted to an overhanging load both widthways and lengthways.
50	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
51	According to the Road Traffic Act 1988, when is loading and unloading allowed on verges or footpaths?
52	What does the Health and Safety at Work Act require employers to do with regards specifically to vehicles and equipment?
53	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant/vehicles who do not comply with, or follow legislation and regulations.
54	In what situation does a hard hat need to be worn when driving a transporter on a construction site?
55	What is the maximum gross train weight of vehicle movement allowed under the current Construction and Use Regulations?
56	a) What is the minimum distance allowed near open trenches when travelling with a transporter and b) explain why?
57	Under the Road Traffic Act 1998, state ONE instance when an overloaded vehicle may travel on the public highway.
58	If loading a smooth drum ride-on roller, how can friction between the drums and the transporter ramps/bed be increased?
59	What checks should be made to cabbed machines after loading?
60	What is the maximum distance that the end marker board must be from the edge of a projection?

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No.	Question
61	What THREE main duties of the Health and Safety at Work Act must employees follow?
62	Using the machine's Operator's Manual, state how the machine must be secured for transport.  Note: The Operator's Manual for one of the items of plant being used for the test MUST be available for reference by the candidate.
63	When a long load on a short rigid vehicle results in excessive overhang over the rear of the vehicle, what are TWO possible dangers?
64	State: a) at what distance a rear overhang should be identified and b) how.
65	When parking the vehicle at the end of the shift, name THREE places where the transporter should NOT be parked.
66	State THREE instances when marker boards must be fitted.
67	Where should the vehicle plating certificate be positioned on the vehicle?
68	What effect does chocking timber (dunnage) have on carrying capacity?
69	Before setting off to retrieve a machine from site, in terms of arrival, what THREE things should the driver ideally need to know before departure?
70	Using the machine's Operator's Manual, state the procedure for preparing and loading the machine onto a transporter.  Note: The Operator's Manual for one of the items of plant being used for the test MUST be available for reference by the candidate.
71	Name THREE ways in which transport drivers can minimise their impact upon the environment whilst using the vehicle.
72	After loading and securing plant for transit:  a) when should the lashings or securing equipment be re-checked and b) why?
73	What is the purpose of a risk assessment?
74	List SIX typical subject areas that should be covered in a site induction.
75	On articulated-steered plant, what should be engaged after loading?

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No.	Question
76	Whenever possible, who should decide the positioning of the transporter for loading?
77	What is the definition of a 'long load'?
70	The transport driver has to drive a new type of plant that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the transport driver to have?
70	a) What type of licence and which class should a transport driver hold and b) what is the minimum age allowed?

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No.	Question
1	What checks should be made to cabbed machines after loading?
2	When are the most likely times that loads may move during transit in the transporter?
3	If loading a smooth drum ride-on roller, how can friction between the drums and the transporter ramps/bed be increased?
4	State: a) at what distance a rear overhang should be identified and b) how.
5	Many transporters have a turbo-charged engine.  a) What is the normal procedure before switching off the engine after working and b) what happens if the procedure is not followed?
6	What is the definition of, or how can a hazard be described?
7	Name FOUR items that must be displayed on a DoT-approved plating certificate.
8	If setting up to load or unload in a pedestrianised area, state THREE factors that need to be taken into account.
9	What is the difference between a low loader and a semi-trailer?
10	When would outriggers on the trailer normally be used?
11	a) What is the minimum distance allowed near open trenches when travelling with a transporter and b) explain why?
12	What is the maximum gross train weight of vehicle movement allowed under the current Construction and Use regulations?
13	What is the meaning of this symbol (being demonstrated by the Tester)?
14	Name THREE ways in which transport drivers can minimise their impact upon the environment whilst using the vehicle.
15	Under Special Types General Order (STGO), give TWO instances when an attendant is required.

No.	Question
16	What is a possible consequence of using a tyre with a deep cut in the sidewall?
17	In general: a) what is the maximum angle that lashings should be restricted to and b) why?
18	Where should the vehicle plating certificate be positioned on the vehicle?
19	What is the recommended maximum distance between lashings on the length of a load?
20	What is meant by Maximum Authorised Mass (MAM)?
21	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
22	a) What is the purpose of a Method Statement and b) what is required of the driver?
23	If an item of plant is being loaded where it is known that the parking brake is not fully effective, what action must be taken?
24	Name THREE ways that a transport driver can contribute in ensuring repeat business with the client or principal contractor.
25	What is the definition of a 'long load'?
26	During the loading process, in terms of the load, what is the transporter driver responsible for?
27	In what situation does a hard hat need to be worn when driving a transporter on a construction site?
28	What is the difference between kerbside weight and unladen weight?
29	When securing machines having hydraulically operated booms (e.g. 360 degree excavators etc.), what should be ensured when restraining?
30	Before setting off to retrieve a machine from site, in terms of arrival, what THREE things should the driver ideally need to know before departure?



No.	Question
31	A 70-tonne tracked excavator is being transported. A spare bucket is part of the load. a) Is this allowed and b) give a reason for your answer.
32	Using the machine's Operator's Manual, state the procedure for preparing and loading the machine onto a transporter.  Note: The Operator's Manual for one of the items of plant being used for the test MUST be available for reference by the candidate.
33	What THREE main duties of the Health and Safety at Work Act must employees follow?
34	According to the Road Traffic Act 1988, when is loading and unloading allowed on verges or footpaths?
35	What is the maximum allowable total laden weight of a category-2 vehicle or combination?
36	Give THREE possible reasons why transporters should not stray off the designated travel routes.
37	On start up, the air pressure on the vehicle is low. What actions must the transport driver carry out before work and during work?
38	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
39	If the transport driver has to top up the engine oil, state TWO precautions to ensure cleanliness of the system.
40	What THREE pieces of information are needed to calculate axle loadings?
41	Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out?
42	If not indicated, the headroom under bridges in the UK is at least what height?
43	If checking engine oil levels using a dipstick, why must gloves be worn?
44	Give an example of 'road friendly' suspension.
45	What is the minimum height of an amber flashing beacon?



No.	Question
46	When a long load on a short rigid vehicle results in excessive overhang over the rear of the vehicle, what are TWO possible dangers?
47	In terms of widths, when do the police require notification of the movement?
48	Under the Road Traffic Act 1998, state ONE instance when an overloaded vehicle may travel on the public highway.
49	What problems and hazards can soft ground cause to a loaded transporter?
50	After loading and securing plant for transit:  a) when should the lashings or securing equipment be re-checked and  b) why?
51	When parking the vehicle at the end of the shift, name THREE places where the transporter should NOT be parked.
52	What checks should be made to flat webbing slings before use?
53	Whenever possible, who should decide the positioning of the transporter for loading?
54	What is the maximum distance that the end marker board must be from the edge of a projection?
55	What is the maximum width of a load before it becomes classed as a 'wide load'?
56	What is the purpose of a risk assessment?
57	On articulated-steered plant, what should be engaged after loading?
58	State the minimum time period when notification has to be given to the Highways and Bridges Authorities if the gross weight exceeds Construction and Use regulations but does not exceed 80,000 kg.
59	Why are those who load and unload plant generally regarded as 'safety-critical' workers?
60	a) What type of licence and which class should STGO transport drivers hold and b) what is the minimum age allowed?



No.	Question
61	Under what conditions can lashing chains be used for lifting operations?
62	Give TWO examples of where The Work at Height Regulations may apply to transporters.
63	What length of retraining is required every five years for the Certificate of Professional Competence (CPC) scheme?
64	Give FIVE instances where lights should be fitted to an overhanging load both widthways and lengthways.
65	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
66	What is the maximum permitted axle weight on a low loader?
67	When loading, where is the optimum, or best position to place an item of plant?
68	When is HA form VR1 required to be submitted?
69	Where and why would packing be used?
70	The transport driver has to drive a new type of plant that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the transport driver to have?
71	List SIX typical subject areas that should be covered in a site induction.
72	Name SIX safety considerations when selecting a site for loading or unloading plant.
73	Before loading or unloading on the public highway, what specific measures must be considered?
74	Why should the centre of gravity of a load be in front of the rear axle of an articulated semi-trailer?
75	Using the machine's Operator's Manual, state how the machine must be secured for transport.  Note: The Operator's Manual for one of the items of plant being used for the test MUST be available for reference by the candidate.



No.	Question
76	On LGVs above 3.5 tonnes first used after January 2007: a) how many mirrors are required and b) where should they be positioned?
77	Where should the vehicle's and/or transported machine's manual be kept and why?
78	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant/vehicles who do not comply with, or follow legislation and regulations.
79	What does the Health and Safety at Work Act require employers to do with regards specifically to vehicles and equipment?
80	State the maximum allowed speeds of a fully loaded, category-3 transporter which is travelling on: a) motorway, b) dual carriageway (unrestricted) and c) single carriageway (unrestricted).
81	What should be considered when securing a 360-degree excavator fitted with rubber tracks?
82	How can a qualification or card benefit a transport driver?
83	What effect does chocking timber (dunnage) have on carrying capacity?
84	Once the transporter is positioned, state SIX actions to be considered before loading commences.
85	State THREE instances when marker boards must be fitted.
86	When working in a confined area or space, name THREE hazards that can occur.

No.	Question
1	a) Give ONE advantage and b) TWO disadvantages of rear-mounted cameras.
2	What is the purpose of a ROPS cab?
3	Give TWO reasons why the dump truck operator should have an understanding of the type of spoil being transported.
4	a) State the purpose of a retarder and b) the possible consequences of not using it when required.
5	Whenever possible, who should decide the positioning of the dump truck for loading?
6	When would the body safety strut or support be used?
7	The function or job role of a dump truck operator, when transporting loads, is to?
8	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or principal contractor.
9	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
10	Why should tail gates not be fitted when transporting bulky or rock-type material?
11	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
12	When travelling on wet clay, what effect does this have on the dump truck?
13	Why should a dump truck be re-fuelled at the end of the day?
14	Give TWO examples of where The Work at Height Regulations may apply to dump trucks.
15	Operators should lower the body fully before driving away. Give TWO possible consequences if this is not carried out.

No.	Question
16	When working in a confined area or space, what danger can be present with an articulated dump truck with regards to steering?
17	When working in a confined area or space, name THREE hazards that can occur.
18	The rear axle units on most dump trucks pivot on the chassis. Explain the reason for pivoting axles.
19	Many dump trucks have a turbo-charged engine.  a) What is the normal procedure before switching off the engine after working and b) what happens if the procedure is not followed?
20	Who should determine the maximum load that should be placed into the body of the dump truck?
21	The operator has to use a new type of dump truck that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
22	If a load has to be tipped on a slope, what may happen if the load is tipped downhill and why?
23	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
24	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
25	What is regarded as the most productive position for the dump truck to be in when being loaded by a wheeled loading shovel working from a stockpile?
26	a) Why should the body of the dump truck be raised slowly/carefully especially with wet or sticky material and b) what would be a consequence if this was not done?
27	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
28	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
29	What problems and hazards can soft ground cause to a loaded dump truck?
30	What is the meaning of this hand signal (being demonstrated by the Tester)?

No.	Question
31	Using the Operator's Manual, state the figure for tyres' operating pressure.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
32	State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
33	Apart from the operator, who else may need to use the machine's Operator's Manual?
34	What is a possible consequence of using a tyre with a deep cut in the sidewall?
35	Where should the dump truck's Operator's Manual be kept and why?
36	List SIX typical subject areas that should be covered in a site induction.
37	Why are plant operators generally regarded as 'safety-critical' workers?
38	a) What is the purpose of a Method Statement and b) what is required of the operator?
39	When parking the machine at the end of the shift, name THREE places where the dump truck should NOT be parked.
40	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
41	On articulated dump trucks, steering is achieved by actuating a hydraulic ram (or rams) which is controlled by turning the steering wheel.  a) How does the engine supply the oil flow and b) what happens to the steering when the engine stops?
42	Why must the seat belt be worn at all times, even with the cab door closed?
43	If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
44	a) Name THREE purposes of the raised lugs on tyres and b) what can happen to a dump truck if the lugs are severely worn?
45	What is the purpose of a risk assessment?

No.	Question
46	How can a qualification or card benefit a plant operator?
47	In what situation does a hard hat NOT need to be worn when operating a dump truck?
48	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
49	If checking the oil level using a dipstick, why must gloves be worn?
50	What is the definition of, or how can a hazard be described?
51	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
52	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences?
53	What THREE main duties of the Health and Safety at Work Act must employees follow?
54	State the purpose of a heated body.
55	If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, state THREE actions that must be carried out before they leave the machine.
56	On start up, the air pressure on the machine is low. What actions must the operator carry out before work and during work?
57	The operator is asked to tip material into a new trench. State FIVE different requirements that must be considered or implemented before tipping commences.
58	If the machine is being travelled or working on the public highway, the Road Traffic Act applies.  a) What type of licence and which class should the operator hold and b) what is the minimum age allowed?
59	Give THREE possible reasons why dump trucks should not stray off the designated haul routes.
60	A dump truck is classified by a manufacturer as a 30-tonne machine. What does this mean?



No.	Question
61	a) What is the minimum distance allowed near open trenches when travelling with a dump truck and b) explain why?
62	When tipping a load, the centre of gravity of the machine changes. a) How does this affect the dump truck and b) state TWO actions to avoid accidents.
63	An operator has been asked to transport materials from one site to another using the public highway, for which the Road Traffic Act applies. What effect can this have on this activity?

No.	Question
1	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
2	If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
3	Why do most dump trucks have a sloping body tail?
4	Apart from the operator, who else may need to use the machine's Operator's Manual?
5	The operator has to use a new type of dump truck that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
6	Give TWO examples of where The Work at Height Regulations may apply to dump trucks.
7	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
8	If a load has to be tipped on a slope, what may happen if the load is tipped downhill and why?
9	a) What is the purpose of a Method Statement and b) what is required of the operator?
10	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
11	Name THREE conditions that mirrors on the machine must be in.
12	Why should tail gates not be fitted when transporting bulky or rock-type material?
13	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
14	When travelling on wet clay, what effect does this have on the dump truck?
15	Many dump trucks have a turbo-charged engine. a) What is the normal procedure before switching off the engine after working and b) what happens if the procedure is not followed?

No.	Question
16	What is the meaning of this hand signal (being demonstrated by the Tester)?
17	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
18	When working in a confined area or space, name THREE hazards that can occur.
19	In what situation does a hard hat NOT need to be worn when operating a dump truck?
20	a) State the purpose of a retarder and b) the possible consequences of not using it when required.
21	If fitted, name the purpose of having independent front suspension.
22	When parking the machine at the end of the shift, name THREE places where the dump truck should NOT be parked.
23	Give TWO reasons why the dump truck operator should have an understanding of the type of spoil being transported.
24	a) Give ONE advantage and b) TWO disadvantages of rear-mounted cameras.
25	When would the body safety strut or support be used?
26	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences?
27	Why are plant operators generally regarded as 'safety-critical' workers?
28	a) Why should the body of the dump truck be raised slowly/carefully especially with wet or sticky material and b) what would be a consequence if this was not done?
29	Operators should lower the body fully before driving away. Give TWO possible consequences if this is not carried out.
30	What is a possible consequence of using a tyre with a deep cut in the sidewall?

No.	Question
31	If the machine is being travelled or working on the public highway, the Road Traffic Act applies.  a) What type of licence and which class should the operator hold and  b) what is the minimum age allowed?
32	When tipping a load, the centre of gravity of the machine changes. a) How does this affect the dump truck and b) state TWO actions to avoid accidents.
33	What is regarded as the most productive position for the dump truck to be in when being loaded by a wheeled loading shovel working from a stockpile?
34	Using the Operator's Manual, state the figure for tyres' operating pressure. For tracked units, state checks needed to be made to the track belts.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
35	State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
36	Who should determine the maximum load that should be placed into the body of the dump truck?
37	Give THREE possible reasons why dump trucks should not stray off the designated haul routes.
38	An operator has been asked to transport materials from one site to another using the public highway, for which the Road Traffic Act applies. What effect can this have on this activity?
39	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
40	List SIX typical subject areas that should be covered in a site induction.
41	How can a qualification or card benefit a plant operator?
42	If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, state THREE actions that must be carried out before they leave the machine.
43	What is the definition of, or how can a hazard be described?
44	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
45	Why must the seat belt be worn at all times, even with the cab door closed?

No.	Question
46	What THREE main duties of the Health and Safety at Work Act must employees follow?
47	The operator is asked to tip material into a new trench. State FIVE different requirements that must be considered or implemented before tipping commences.
48	A dump truck is classified by a manufacturer as a 60-tonne machine. What does this mean?
49	What problems and hazards can soft ground cause to a loaded dump truck?
50	a) What is the minimum distance allowed near open trenches when travelling with a dump truck and b) explain why?
51	If checking the oil level using a dipstick, why must gloves be worn?
52	Whenever possible, who should decide the positioning of the dump truck for loading?
53	Why should a dump truck be re-fuelled at the end of the day?
54	Where should the dump truck's Operator's Manual be kept and why?
55	The function or job role of a dump-truck operator when transporting loads is to?
56	On start up, the air pressure on the machine is low. What actions must the operator carry out before work and during work?
57	a) Name THREE purposes of the raised lugs on tyres and b) what can happen to a dump truck if the lugs are severely worn?
58	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or principal contractor.
59	What is the purpose of a ROPS cab?
60	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.



No.	Question
61	What is the purpose of a risk assessment?
62	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.

No.	Question
1	What particular and specific hazards can affect the stability of the machine when working on old industrial (brownfield) sites?
2	If the machine is being travelled or working on the public highway, the Road Traffic Act applies.  a) What type of licence and which class should the operator hold and b) what is the minimum age allowed?
3	Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.
4	What is the main purpose of the Rated Capacity Indicator (RCI) or Load Moment Indicator (LMI)?
5	Give THREE reasons why an oversize bucket should not be used when excavating trenches to specification.
6	Using the lifting capacity diagram for A58:  a) what is the maximum lifting capacity at a 4 m radius over the sides of the track with the load at a height of 1 m  b) what effect does fitting a bucket have on the lifting capacity  c) what effect does the dozer blade have on the lifting capacity?
7	What is the purpose of the counterweight of the machine?
8	If a yellow-coloured marker tape is unearthed during excavating, which TWO types of services could this indicate?
9	Apart from the operator, who else may need to use the machine's Operator's Manual?
10	Describe ONE physical method of checking that a bucket is fully secured to the quick-hitch coupler prior to work.
11	a) What is the purpose of a Method Statement and b) what is required of the operator?
12	When an object needs to be lifted on a site, what should be the first consideration of planning?
	If a trench has a depth of 2 metres:  a) What is the minimum distance to maintain from the edge of the trench when placing spoil and b) explain why?
14	If setting up to excavate in a confined area, name TWO things that should be taken into account before starting.
15	What is the nearest distance allowed to gas pipes when excavating with the machine?

No.	Question
16	When working in a confined area or space: a) what danger can be present with regards to the counterweight of the machine, b) when should measures be taken and c) what measures should be implemented?
17	Explain the purpose of a lift plan.
18	The operator has to fit and use a new bucket using a quick-hitch coupler that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
19	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
20	On a semi-automatic quick-hitch bucket attaching system: a) what is the purpose of the safety pin and b) what checks MUST be made to the pin before use?
21	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
22	Describe TWO actions to be taken for an open trench at the end of a working day.
23	Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?
24	If the machine's rated capacity/object handling capacity chart is not available for reference, what other method can be used to determine the machine's lifting capacity?
25	List SIX typical subject areas that should be covered in a site induction.
26	What needs to be inspected on a quick-hitch coupler if attaching lifting accessories for the lifting of slung loads?
27	Why must the controls be isolated before each load can be attached or disconnected by the slinger?
28	What factors determine the shoring requirements of a trench?
29	Give TWO reasons why, wherever possible, operators should excavate the ground in layers.
30	Who determines the lifting/object handling capacity of the machine?

No.	Question
31	What makes up the total (or gross) weight of a load that is to be lifted?
32	Why should long loads be lifted using a swivelling type lifting accessory?
33	What is the purpose of a roll or ROPS frame?
34	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
35	If travelling with a load, name FIVE factors that must be taken into account by the operator before moving.
36	If attaching accessories to a quick-hitch coupler, give TWO reasons why the coupler should be tilted in the downwards position (ram extended)?
37	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
38	When slewing with a load, where should the operator be looking?
39	When parking the machine at the end of the shift, name THREE places where the machine should not be parked.
40	What effect can a swinging load have on an excavator?
41	Manufacturers' lifting or object handling capacity charts apply (in all known cases) when the machine is level. What is the effect if a load is lifted or travelled facing downhill on a downhill slope?
42	According to legislation, when are check valves and a rated capacity or load moment indicator required?
43	In what situation does a hard hat NOT need to be worn when operating a 360 excavator?
44	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
45	Why are plant operators generally regarded as 'safety-critical' workers?

No.	Question
46	State the purpose of the check valve(s) located on the boom cylinder rams.
47	What is the purpose of a risk assessment?
48	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
49	What does the Health and Safety at Work Act require employers to do, specifically regarding plant?
50	What is the meaning of this hand signal (being demonstrated by the tester)?
51	If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
52	What information does the 'dig-envelope' (also known as 'working range') chart give? (Candidates may be shown a copy of a chart.)
53	The safe working load (SWL) or working load limit (WLL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
54	If the excavator is carrying out deep excavating work using the full working range, what hazard may occur?
55	Why should an excavator be re-fuelled at the end of the day?
56	Why is it important that the bucket/attachment is lowered and the engine switched off before the operator exits the cab?
57	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
58	Before manually changing any bucket: a) where should the bucket be positioned (in relation to the ground) before removing the final pin and b) explain why?
59	Where should the excavator's operator's manual be kept and why?
60	What is regarded as the danger or hazard zone during a lifting operation?

No.	Question
61	Many smaller excavators have the ability to slew the boom (mounted on a king post) relative to the cab/upper structure. Give one application where this facility may be used.
62	If the load inadvertently or accidentally lands, what course of action should be taken?
63	What is meant by zero-tail swing excavators?
64	What is the definition of, or how can a hazard be described?
65	With regards to lifting accessories, irrespective of who supplied the accessories, what THREE factors should be ensured before the accessories are used?
66	Using the operator's manual, state the figure for setting track tension. For wheeled units, state the tyres' operating pressure.  Note: The operator's manual for the machine being used for the test must be available for reference by the candidate.
67	If both travel levers (or travel pedal for wheeled machines) are pushed forwards when the track motors (or driving wheels) are in front of the cab, in which direction would the machine move?
68	If the accessory attachment point is not part of the bucket, give TWO reasons why it should be removed.
69	If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?
70	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and  b) state FOUR actions to be considered by the operator before loading commences?
71	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or principal contractor.
72	Accessories must only be attached to manufacturers' approved lifting points.  Explain THREE possible consequences if the recommendations are not followed.
73	Give FOUR reasons that may cause the machine to tip over (forwards and/or sideways).
74	If checking the oil level using a dipstick, why must gloves be worn?
75	Why should different soils be segregated during excavating?



No.	Question
76	How can a qualification or card benefit a plant operator?
77	When must a signaller be used before moving an excavator?
78	On both tracked and wheeled types:  a) what differs between lifting over the side compared to over the front or the rear of the machine?  b) Explain why.
79	If a hook is fitted to the machine for lifting purposes, what must be checked before use?
80	Before lowering into or moving a drag box into a trench, what trench-related checks must be made?
81	What THREE main duties of the Health and Safety at Work Act must employees follow?
82	The operator is asked to excavate a new trench. State FIVE different requirements that must be considered or implemented before work commences.
83	Why must the seat belt be worn, even with the cab door closed?
84	Name TWO types of equipment used to ensure that excavation levels, measurements and positions are to the required specification.
85	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
86	Which parts of the machine is the radius (for lifting) measured from?
87	Why must excavator operators not begin to load vehicles until the forward-tipping dumper driver is clear of their machine?

# CP Construction Plant Technical Test Theory CS Competence Scheme Excavator 360 below 10 tonnes - Lifting A97 (A58)

No.	Question
1	On both tracked and wheeled types: a) what differs between lifting over the side compared to over the front or the rear of the machine? b) Explain why.
2	Which parts of the machine is the radius (for lifting) measured from?
3	Manufacturers' lifting or object handling capacity charts apply (in all known cases) when the machine is level. What is the effect if a load is lifted or travelled facing downhill on a downhill slope?
4	If the machine's rated capacity/object handling capacity chart is not available for reference, what other method can be used to determine the machine's lifting capacity?
5	What is regarded as the danger or hazard zone during a lifting operation?
6	Before lowering into or moving a drag box into a trench, what trench-related checks must be made?
7	If the load inadvertently or accidentally lands, what course of action should be taken?
8	Using the lifting capacity diagram for A58:  a) what is the maximum lifting capacity at 4 m radius over the sides of the track with the load at a height of 1 m  b) what effect does fitting a bucket have on the lifting capacity c) what effect does the dozer blade have on the lifting capacity?
9	Who determines the lifting/object handling capacity of the machine?
10	What effect can a swinging load have on an excavator?
11	With regards to lifting accessories, irrespective of who supplied the accessories, what THREE factors should be ensured before the accessories are used?
12	According to legislation, when are check valves and a rated capacity or load moment indicator required?
13	When slewing with a load, where should the operator be looking?
14	What is the main purpose of the Rated Capacity Indicator (RCI) or Load Moment Indicator (LMI)?
15	If attaching accessories to a quick-hitch coupler, give TWO reasons why the coupler should be tilted in the downwards position (ram extended)?

# CP Construction Plant Technical Test Theory CS Competence Scheme Excavator 360 below 10 tonnes - Lifting A97 (A58)

No.	Question
16	The safe working load (SWL) or working load limit (WLL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
17	Why should long loads be lifted using a swivelling type lifting accessory?
18	What needs to be inspected on a quick-hitch coupler if attaching lifting accessories for the lifting of slung loads?
19	What makes up the total (or gross) weight of a load that is to be lifted?
20	When an object needs to be lifted on a site, what should be the first consideration of planning?
21	Accessories must only be attached to manufacturers' approved lifting points.  Explain THREE possible consequences if the recommendations are not followed.
22	If travelling with a load, name FIVE factors that must be taken into account by the operator before moving.
23	If a hook is fitted to the machine for lifting purposes, what must be checked before use?
24	Explain the purpose of a lift plan.
25	If the accessory attachment point is not part of the bucket, give TWO reasons why it should be removed.
26	Why must the controls be isolated before each load can be attached or disconnected by the slinger?

No.	Question
1	If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?
2	Why should different soils be segregated during excavating?
3	If setting up to excavate in a confined area, name TWO things that should be taken into account before starting.
4	Before manually changing any bucket: a) Where should the bucket be positioned (in relation to the ground) before removing the final pin and b) explain why?
5	Give FOUR reasons that may cause the machine to tip over – forwards and/or sideways.
6	When must a banksman/signaller be used before moving an excavator?
7	What needs to be inspected on a quick-hitch coupler when attaching lifting accessories to lift slung loads?
8	Before lowering into or moving a drag box into a trench, what trench-related checks must be made?
9	Where should the excavator's operator's manual be kept and why?
10	If the excavator is carrying out deep excavating work using the full working range, what hazard may occur?
11	With regards to lifting accessories, irrespective of who supplied the accessories, what THREE factors should be ensured before the accessories are used?
12	When an object needs to be lifted on a site, what should be the first consideration of planning?
13	Why must the controls be isolated before each load can be attached or disconnected by the slinger?
14	Give TWO examples of where The Work at Height Regulations may apply to 360 excavator operations.
15	Why should an excavator be re-fuelled at the end of the day?

No.	Question
16	The operator has to fit and use a new bucket using a quick-hitch coupler that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
17	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with or follow legislation and regulations.
18	In what situation does a hard hat NOT need to be worn when operating a 360 excavator?
19	What is the purpose of the counterweight of the machine?
20	If the machine's rated capacity/object handling capacity chart is not available for reference, what other method can be used to determine the machine's lifting capacity?
21	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
22	Who determines the lifting/object handling capacity of the machine?
23	If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
24	When slewing with a load, where should the operator be looking?
25	Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?
26	If the machine is being travelled or working on the public highway, the Road Traffic Act applies.  a) What type of licence and which class should the operator hold and b) what is the minimum age allowed?
27	If a trench has a depth of 2 metres:  a) What is the minimum distance to maintain from the edge of the trench when placing spoil and b) explain why?
28	If a yellow-coloured marker tape is unearthed during excavating, which TWO types of services could this indicate?
29	Name THREE ways that a plant operator can contribute towards repeat business with the client or principal contractor.
30	On a semi-automatic quick-hitch bucket attaching system: a) what is the purpose of the safety pin and b) what checks MUST be made to the pin before use?

No.	Question
31	If a hook is fitted to the machine for lifting purposes, what must be checked before use?
32	What are the possible outcomes of prosecution for not complying with legislation and regulations?
33	What effect can a swinging load have on an excavator?
34	Why must the seat belt be worn, even with the cab door closed?
35	List SIX typical subject areas that should be covered in a site induction.
36	Accessories must only be attached to manufacturers' approved lifting points.  Explain THREE possible consequences if the recommendations are not followed.
37	If checking the oil level using a dipstick, why must gloves be worn?
38	Apart from the operator, who else may need to use the machine's Operator's Manual?
39	If attaching accessories to a quick-hitch coupler, give TWO reasons why the coupler should be tilted in the downwards position (ram extended)?
40	What information does the 'dig-envelope' (also known as 'working range') chart give? (Candidates may be shown a copy of a chart.)
41	What is the nearest distance allowed to gas pipes when excavating with the machine?
42	Why should long loads be lifted using a swivelling type lifting accessory?
43	Give THREE reasons why an oversize bucket should NOT be used when excavating trenches to specification.
44	On both tracked and wheeled types: a) what differs between lifting over the side compared to over the front or the rear of the machine? b) Explain why.
45	What is the main purpose of the Rated Capacity Indicator (RCI) or Load Moment Indicator (LMI)?

No.	Question
46	Why are plant operators generally regarded as 'safety-critical' workers?
47	Why is it important that the bucket/attachment is lowered and the engine switched off before the operator exits the cab?
48	What is regarded as the danger or hazard zone during a lifting operation?
49	How can a qualification or card benefit a plant operator?
50	What is the purpose of a risk assessment?
51	If both travel levers (or travel pedal for wheeled machines) are pushed forwards when the track motors (or driving wheels) are in front of the cab, in which direction would the machine move?
52	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
53	Explain the purpose of a lift plan.
54	What is the definition of, or how can a hazard be described?
55	Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.
56	Why must excavator operators not begin to load vehicles until the forward-tipping dumper driver is clear of their machine?
57	Describe a physical method of checking that a bucket is fully secured to the quick-hitch coupler prior to work.
58	Using the lifting capacity diagram for A59: a) if the machine is equipped with a 2.5 m long dipper, what is the maximum lifting capacity in tonnes at a 6 m radius/reach over the sides of the track with the load at 3 m height b) in principle, if a longer dipper is fitted, what effect does that have on the lifting capacity (assuming same size bucket and machine configuration)?
59	a) Why should the slewing direction be to the left wherever possible and b) Explain why.
60	The operator is asked to excavate a new trench. State FIVE different requirements that must be considered or implemented before work commences.

No.	Question
61	If the accessory attachment point is not part of the bucket, give TWO reasons why it should be removed.
62	State the purpose of the check valve(s) located on the boom cylinder rams.
63	What does the Health and Safety at Work etc. Act require employers to do, specifically regarding plant?
64	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences?
65	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
66	What is the purpose of a roll or ROPS frame?
67	Which parts of the machine is the radius (for lifting) measured from?
68	When working in a confined area or space:  a) what danger can be present with regards to the counterweight of the machine,  b) when should measures be taken and c) what measures should be implemented?
69	a) What is the purpose of a Method Statement and b) what is required of the operator?
70	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
71	What THREE main duties of the Health and Safety at Work Act must employees follow?
72	What particular and specific hazards can affect the stability of the machine when working on old industrial (brownfield) sites?
73	If the load inadvertently or accidentally lands, what course of action should be taken?
74	Using the operator's manual, state the figure for setting track tension. For wheeled units, state the tyres' operating pressure. Note: The operator's manual for the machine being used for the test MUST be available for reference by the candidate.
75	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.



No.	Question
76	What factors determine the shoring requirements of a trench?
77	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
78	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
79	Manufacturers' lifting or object handling capacity charts apply (in all known cases) when the machine is level. What is the effect if a load is lifted or travelled facing downhill on a downhill slope?
80	The safe working load (SWL) or working load limit (WLL) of a multi-leg chain sling only applies in what TWO conditions or configurations?
81	If travelling with a load, name FIVE factors that must be taken into account by the operator before moving.
82	According to legislation, when are check valves and a rated capacity or load moment indicator required?
83	What is the meaning of this hand signal (being demonstrated by the tester)?
84	Describe TWO actions to be taken for an open trench at the end of a working day.
85	Give TWO reasons why, wherever possible, operators should excavate the ground in layers.
86	What makes up the total (or gross) weight of a load that is to be lifted?
87	Name TWO types of equipment used to ensure that excavation levels, measurements and positions are to the required specification.

# CP Construction Plant Technical Test Theory CS Competence Scheme Excavator 360 above 10 tonnes - Lifting A98 (A59)

No.	Question
1	What is regarded as the danger or hazard zone during a lifting operation?
2	If a hook is fitted to the machine for lifting purposes, what must be checked before use?
3	If the load inadvertently or accidentally lands, what course of action should be taken?
4	Why must the controls be isolated before each load can be attached or disconnected by the slinger?
5	What is the main purpose of the Rated Capacity Indicator (RCI) or Load Moment Indicator (LMI)?
6	On both tracked and wheeled types: a) what differs between lifting over the side compared to over the front or the rear of the machine? b) Explain why.
7	Using the lifting capacity diagram for A59:  a) if the machine is equipped with a 2.5 m long dipper, what is the maximum lifting capacity in tonnes at a 6 m radius/reach over the sides of the track with the load at 3 m height b) in principle, if a longer dipper is fitted, what effect does that have on the lifting capacity (assuming same size bucket and machine configuration)?
8	If the accessory attachment point is not part of the bucket, give TWO reasons why it should be removed.
9	With regards to lifting accessories, irrespective of who supplied the accessories, what THREE factors should be ensured before the accessories are used?
10	What effect can a swinging load have on an excavator?
11	Which parts of the machine is the radius (for lifting) measured from?
12	According to legislation, when are check valves and a rated capacity or load moment indicator required?
13	When slewing with a load, where should the operator be looking?
14	When an object needs to be lifted on a site, what should be the first consideration of planning?
15	If the machine's rated capacity/object handling capacity chart is not available for reference, what other method can be used to determine the machine's lifting capacity?

# CP Construction Plant Technical Test Theory CS Competence Scheme Excavator 360 above 10 tonnes - Lifting A98 (A59)

No.	Question
16	Why should long loads be lifted using a swivelling type lifting accessory?
17	If attaching accessories to a quick-hitch coupler, give TWO reasons why the coupler should be tilted in the downwards position (ram extended)?
18	What needs to be inspected on a quick-hitch coupler if attaching lifting accessories for the lifting of slung loads?
19	Who determines the lifting/object handling capacity of the machine?
20	If travelling with a load, name FIVE factors that must be taken into account by the operator before moving.
21	Explain the purpose of a lift plan.
22	Before lowering into or moving a drag box into a trench, what trench-related checks must be made?
23	Accessories must only be attached to manufacturers' approved lifting points.  Explain THREE possible consequences if the recommendations are not followed.
24	Manufacturers' lifting or object handling capacity charts apply (in all known cases) when the machine is level. What is the effect if a load is lifted or travelled facing downhill on a downhill slope?
25	What makes up the total (or gross) weight of a load that is to be lifted?
26	The safe working load (SWL) or working load limit (WLL) of a multi-leg chain sling only applies in what TWO conditions or configuration?

No.	Question
1	What makes up the total (or gross) weight of a load that is to be lifted?
2	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
3	What is the definition of, or how can a hazard be described?
4	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
5	a) What is meant by the lifting capacity of the crane and b) who determines it?
6	Give FOUR reasons that may cause the crane to overturn.
7	What THREE main duties of The Health and Safety at Work Act must employees follow?
8	Name TWO things that happen if the hoist rope is not vertical when lifting a load.
9	Using the Operator's Manual, state the figure for the tyre pressures.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
10	What is the main purpose of the Rated Capacity Indicator (RCI)?
11	Using the lifting capacity diagram for A60: a) what is the maximum lifting capacity, b) what boom extension is required for a load weighing 7.6 tonnes needed to be placed at 15 metres radius and c) what counterweight is required?
12	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
13	On a busy construction site, how would the slinger/signaller be identified to the crane operator?
14	When working in a confined area or space: a) what danger can be present with regards to the counterweight of the machine, b) when should measures be taken and c) what measures should be implemented?



No.	Question
15	If a load is being slewed too fast for its size, what TWO factors must the operator and signaller take into account?
16	Give TWO examples of where The Work at Height Regulations may apply to mobile crane operations.
17	How can a qualification or card benefit a crane operator?
18	State the functions or job role of the following personnel: a) appointed person, b) crane supervisor, c) slinger, d) signaller.
19	What is the purpose of a risk assessment?
20	What is meant by the footprint of the crane?
21	If checking the oil level using a dipstick, why must gloves be worn?
22	Using the Operator's Manual, state the cold-starting procedure for the crane (can be the drive engine or auxiliary engine).  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
23	Crane operations fall within the scope of the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998. Name TWO requirements of the regulations with regards to lifting.
24	If setting up to lift loads in a pedestrianised area, state THREE factors that need to be taken into account.
25	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
26	Why are crane operators generally regarded as 'safety-critical' workers?
27	If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the crane operator before use?
28	Which parts of the crane is the radius (for lifting) measured from?
29	What is the meaning of this hand signal (being demonstrated by the Tester)?

No.	Question
30	The safe working load or working load limit (SWL/WLL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
31	Only two legs of an 8 tonne four-legged chain sling are being used. What is the maximum load that can be lifted?
32	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
33	List SIX typical subject areas that should be covered in a site induction.
34	What is the purpose of the hoisting limit switch (also known as the 'chandelier')?
35	a) What is the minimum distance allowed near open trenches when travelling the crane and b) explain why?
36	Name THREE ways that a crane operator can contribute in ensuring repeat business with the client or principal contractor.
37	In what situation does a hard hat NOT need to be worn when operating a mobile crane?
38	When slewing with a load, where should the operator be looking?
39	a) What is the purpose of a Method Statement and b) what is required of the operator?
40	Why must the seat belt be worn, even with the cab door closed?
41	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
42	a) How does the number of lines or falls of rope affect the lifting capacity for the crane and b) how is hoist speed affected when the number of lines (or falls of rope) is reduced?
43	As a lifting machine, the crane must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
44	Apart from the operator, who else may need to use the machine's Operator's Manual?



No.	Question
45	a) Which part of the crane applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
46	Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
47	What effect can a swinging load have on a crane?
48	Two cranes are working in the same vicinity that encroach the operating radius of each. What actions would the lift plan or method statement normally specify?
49	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
50	If a load is slewed rather quickly, what TWO initial effects does it have on the load whilst slewing?
51	The operator has to use a new model of mobile crane that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the operator to have?
52	<ul><li>a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and</li><li>b) explain why a distance should be kept.</li></ul>
53	What is the purpose of a roll or ROPS frame?
54	If the hook block inadvertently (accidentally) lands, what course of action should be taken?
55	When must a banksman or signaller be used before moving a crane?
56	The number of falls has been changed on the hook block. How has this action affected the RCI?
57	If a load of 40 tonnes is lifted on four falls or lines of rope, what is the tension in each fall or line?
58	Why should a crane be re-fuelled at the end of the day?
59	As the crane rotates through 360 degrees with a load, what happens to the loading on each outrigger or wheel?



No.	Question
60	When would a fly jib or lattice extension be fitted and used?
61	Name THREE ways in which wind speed can affect the lifting operation.
62	During the lifting operation, part of the task cannot be carried out as detailed in the lift plan.  a) What initially must happen to the lifting operation and b) who authorises any changes?
63	Where should the Operator's Manual be kept and why?
64	If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take?
65	If the crane has to travel on the public highway, the Road Traffic Act applies.  a) What type of licence and which classes should the operator hold and b) what is the minimum age allowed?
66	What is the purpose of counterweight(s) on the crane?
67	Name TWO ways that wet weather can affect lifting operations.
68	If asked to travel with a suspended load, name FIVE factors that must be taken into account by the operator before moving.
69	An operator has been asked to pick and carry a load down a small section of the public highway, for which The Road Traffic Act applies. What effect does this have on crane operations?
70	How does the deflection of the boom or jib affect the lift?
71	What is the difference between a contract lift and a 'standard' crane hire?
72	What are the THREE actions or stages that a crane operator undertakes during pre-use inspections?
73	a) Who only can authorise partial outrigger extensions and b) what is the effect on lifting capacity by partially extending the outriggers?



No.	Question
1	How does the guidance in LOLER 1998 (L113) describe the difference between installed and positioned?
2	On a mobile-type crane, in what situation can the crane lift a single load using both the main and fly hook blocks?
3	Name TWO duties of the crane operator.
4	To whom should the appointed person give all details involving the lifting operation?
5	Who has overall control of the lifting operation?
6	If a crane is out of level, what effect will it have on the radius?
7	If radios are to be used during the lifting operations, what FIVE actions and checks must be made before use?
8	Name the FOUR stages of the hierarchy of control for the marshalling of mobile lifting equipment.
9	Outline the role of the Temporary Works Co-ordinator.
10	State SIX environmental factors that can affect an external lifting operation.
11	How could the deflection of a boom or jib on a mobile-type crane affect a lift?
12	What are the THREE key fundamental aspects that need considering when preparing a design for any temporary works design/structure?
13	A platform is being used to receive lifted loads of materials. What primary procedure must be in place to ensure that the platform being used is suitable and sufficient to hold the weight of the load?
14	According to BS 7121 part 2-1, what are the types of warning that an RCI will indicate, and at what point are they activated?
15	Explain the purpose of the over-hoist limit switch.

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No.	Question
16	Name FOUR factors should be taken into account when calculating the effects of wind on a crane-based lifting operation
17	State the maximum recommended angle for single-leg slings when used as a pair.
18	Name THREE markings found on multiple-leg slings.
19	How is the SWL/WLL/rated capacity for multi-legs slings determined?
20	Where would the information relating to the additional requirements of an intermediate lift over a basic lift be sought?
21	List TWO methods of obtaining the accurate weight of a load.
22	Name THREE factors that determine the rated working capacity of lifting equipment.
23	Which part of BS 7121 is specific to mobile cranes?
24	Define the term 'radius'
25	Name the sections in BS 7121 where advice is given on 'Lifting without outriggers' and 'Pick and carry'.
26	On both tracked and wheeled 360 degree excavators: a) what differs between lifting over the side of the machine compared to lifting over the front or the rear of the machine? b) Explain why.
27	What is the main aim of the HASWA 1974?
28	Name FOUR items that must be recorded when a thorough examination on a lifting appliance has been carried out.
29	Explain why MUST there be a safe system of work.
30	a) What is the minimum recommended distance that is allowed between the counterweight(s) of any lifting equipment and an object/structure and b) what measure must be taken if the distance is less?

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No.	Question
31	Why is it recommended to complete a report after the completion of the lifting operation?
32	Name a design of accessory hook that is exempt from being fitted with a safety catch.
33	What is the definition of a competent person as stated by Codes of Practice?
34	a) State the legislation and the regulation therein that refers to the stability of cranes and b) which regulation states the requirement for all lifting operations to be properly planned?
35	Name THREE factors to be taken into account when devising a mobile lifting equipment marshalling plan.
36	When planning a lift for a lorry loader activity and where it is adjacent to a slope, what is regarded as the minimum distance to be kept from a sloped edge?
37	Identify 4 types of infrastructure where a responsible body or owner would have to be notified when planning a lift on or near by.
38	Name TWO possible penalties for not following legal requirements when using carrying out lifting operations.
39	The area of mat size has been correctly specified for use with the outriggers of a mobile crane and the intended load and operating radius but the pad is not stiff or rigid enough (e.g. it is too thin). Explain the possible consequence.
40	During de-rigging operations, what factor of safety is applied to the load?
41	Identify FOUR requirements for ensuring the stability of any wheeled mobile lifting equipment on site.
42	Define the term 'outreach'.
43	Who is responsible for providing the contractor with written details of the work to be done?
44	Two items of lifting equipment are working in the same vicinity that encroach the operating radius of each. What actions should the lift plan or method statement normally specify?
45	State ONE difference between a regulation and a Code of Practice.

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#### **Technical Test Theory**

**Appointed Person A61** 

No.	Question
46	Using the lifting capacity diagram for A59C: a) if the machine is equipped with a 2.5 m long dipper, what is the maximum lifting capacity in tonnes at a 6 m radius/reach over the sides of the track with the load at 3 m height b) in principle, if a longer dipper is fitted, what effect does that have on the lifting capacity (assuming same size bucket and machine configuration)?
47	What advantage is gained by increasing the number of falls on a hook block?
48	If planning to lift loads in or near a pedestrianised area, what main factor needs to be taken into account?
49	List FOUR items of information that must be included on a temporary works register.
50	a) What is the 'Factor of Safety' when lifting personnel and b) what needs to be taken into account with wind speeds?
51	Outline THREE principle requirements for out-of service procedures for tower cranes.
52	Give THREE examples of how excessive rain can affect an external lifting operation when using lifting equipment.
53	State the safe procedure to be followed before lifting or lowering a load down a shaft or excavation.
54	When planning a lifting operation to place loads below ground level, what needs to be taken into account when calculating the gross weight of the load?
55	What does the term 'structural strength' relate to with regard to the lifting capacity of any lifting equipment?
56	Using the given lifting capacity diagram for the JCB 535/125 telescopic handler using a hook (A61):  a) what is the maximum lifting capacity?  b) what is the maximum lifting capacity when free on wheels (FoW)  c) what is the maximum hook height where a load can be lifted  d) what is the maximum lifting capacity when the hook is at a height of 8m and the boom at an angle of 45degrees?
57	In which applications are single-leg slings rated with their own SWL (WLL)?
58	Explain the difference between an employing and user organisation.
59	Describe FOUR factors that need to be taken into account when specifying communication procedures for a lifting operation.

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No.	Question
60	Who is responsible for compiling all necessary documentation when lifting in close proximity to a site boundary? E.g. protection fans?
61	Name FOUR factors relating to ground that a ground engineer would need to take into account when determining the load bearing capacity of ground.
62	If an object has to be dismantled above ground level to be lifted to ground level (and can't be returned to the original position), what factor of safety should be applied?
63	a) What is the recommended minimum exclusion zone around overhead power lines, b) where can this information be sourced and c) explain why a distance from overhead power lines should be kept.
64	State THREE occasions on which lifting equipment must be thoroughly examined.
65	In what circumstances would aviation warning lighting be required to high-type lifting equipment?
66	a) Where would the duty board of a tower crane normally be located and b) name FOUR types of information that it must contain
67	How should multiple accessories be connected to a crane hook?
68	If a load of 20 tonnes is lifted on four falls of rope, what is the tension in each fall?
69	a) State the regulation number for the lifting of persons under LOLER 1998 and b) list FIVE requirements to be within a procedure.
70	When a crane company hires out a crane, name TWO main legal requirements the hire company must meet regarding the crane and driver.
71	A change of crane/lifting equipment operator is required. What must they be made aware of before continuing?
72	Why must a lifting equipment operator never try and 'drag' a load?
73	To lift a load of 20 tonnes on a 4 single leg chain sling, what is the required SWL (WLL) for each leg with an included angle of 87 degrees? Please explain your calculation.
74	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?

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No.	Question
75	Give TWO methods of obtaining the centre of gravity on an unbalanced load.
76	Name SIX principle factors should be taken into account in relation to fatigue management of a lifting operation.
77	How long is a thorough examination for a lifting accessory valid for?
78	Name THREE possible effects that fatigue can have on a lifting team

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No.	Question
1	During the lifting operation, part of the task cannot be carried out as detailed in the lift plan.  a) What initially must happen to the lifting operation and b) who authorises any changes?
2	a) What is meant by the lifting capacity of the crane and b) who determines it?
3	What is the definition of, or how can a hazard be described?
4	Name a design of accessory hook that is exempt from being fitted with a safety catch.
5	a) When and b) why are axle or suspension locks fitted to most mobile cranes?
6	If a mobile crane on blocked duties is slewing through 180 degrees and is unladen, what can cause a change of ground loading in each stabiliser.
7	Where should the crane's Operator's Manual be kept and why?
8	If radios are to be used during the lifting operations, what FIVE actions and checks must be made before use?
9	Give TWO methods of obtaining the centre of gravity on an unbalanced load.
10	In which applications are single-leg slings rated with their SWL (WLL)?
11	Why must a crane driver never try and 'drag' a load?
12	Identify FOUR requirements for ensuring the stability of mobile cranes on site.
13	Name FIVE requirements that must be followed if accessing the end of the jib for maintenance purposes.
14	What advantage is there in increasing the number of falls on a hook block?
15	What is the meaning of this hand signal (being demonstrated by the Tester)?

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No.	Question
16	Explain the purpose of the over-hoist limit switch.
17	Name TWO duties of the crane operator.
18	What is the minimum recommended distance that is allowed between the counterweight(s) of the crane and another object/structure?
19	State SIX environmental factors that can affect an external lifting operation.
20	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
21	Name FOUR items that must be recorded when a thorough examination on a lifting appliance has been carried out.
22	The operator has to use a new model of crane that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the operator to have?
23	What THREE main duties of The Health and Safety at Work Act must employees follow?
24	To lift a load of 12 tonnes on a two-point lift using single-leg slings, what is the required SWL (WLL) for each sling with an included angle of 87 degrees? Please explain your calculation.
25	If a crane is out of level, what effect will it have on the radius?
26	a) On a tower crane, where must the load radius diagram be located and b) what information must it contain?
27	What are the types of warning that an RCI will indicate?
28	Why is it important to ensure the wheels are clear of the ground when outriggers are employed?
29	If a heavy load is being slewed at too a high speed over at least 180 degrees, what TWO factors must the operator and signaller take into account?
30	Name THREE ways that a crane supervisor can contribute in ensuring repeat business with the client or principal contractor.

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No.	Question
31	According to BS 7121 Part 1: a) what is the minimum number of allowable turns on the hoist drum and b) who decides the actual minimum for a given model of crane?
32	What is the difference between a contract lift and a 'standard' crane hire?
33	Who has overall control of the lifting operation?
34	State the safe procedure to be followed before lifting or lowering a load down a shaft or excavation.
35	Two cranes are working in the same vicinity that encroach the operating radius of each. What actions would the lift plan or method statement normally specify?
36	Explain the difference between an employing and user organisation.
37	How long is a thorough examination for a lifting accessory valid for?
38	Give THREE examples of how excessive rain can affect an external lifting operation when using a mobile crane.
39	If setting up to lift loads near a pedestrianised area, what main factor needs to be taken into account?
40	What is the purpose of a risk assessment?
41	What is the maximum angle that a bow shackle used as a pair on a crane hook can be used at?
42	When a crane company hires out a crane, name TWO main legal requirements the hire company must meet regarding the crane and driver.
43	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
44	List SIX typical subject areas that should be covered in a site induction.
45	a) What is the purpose of a Method Statement and b) what is required of the operator?

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No.	Question
46	Name TWO possible penalties for not following legal requirements when using a crane.
47	Who is responsible for providing the contractor with written details of the work to be done?
48	What are the possible outcomes if facing prosecution for not complying with legislation and regulations?
49	Which part of BS 7121 is specific to mobile cranes?
50	What is the 'Factor of Safety' when lifting personnel?
51	What are the THREE actions or stages that a crane operator undertakes during pre-use inspections?
52	Define the term 'radius'.
53	Name THREE ways in which an operator can minimise their impact upon the environment whilst using a crane.
54	List TWO methods of obtaining the accurate weight of a load.
55	What do The Work at Height Regulations require of crane supervisors?
56	State why there must be a safe system of work.
57	How can a qualification or card benefit a crane supervisor?
58	How is the SWL/WLL/rated capacity for multi-leg slings determined?
59	How does the deflection of the boom on a mobile crane or jib affect the lift?
60	Describe how to calculate the area of support beneath a crane outrigger, which gives maximum possible safeguards against ground subsidence.

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No.	Question
61	A tower crane has been delivered to site, assembled and configured for lifting. What must be carried out before lifting starts and by whom?
62	If the operator has to leave the cab of a crane for a short period, state at least TWO actions that must be taken before they leave.
63	A replacement crane driver has been supplied to continue the lift. What must they be made aware of before further lifting can take place?
64	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
65	State the maximum recommended angle for single-leg slings when used as a pair.
66	To whom should the appointed person give all details involving the lifting operation?
67	Name THREE factors that determine the safe working load of the crane.
68	List FOUR items to be found on a chain sling inspection certificate.

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No.	Question
1	a) Who determines the lifting or rated capacity of the crane and b) where can the operator locate the lifting/rated capacity?
2	a) What is the purpose of a Method Statement and b) what is required of the operator?
3	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
4	Where should the Operator's Manual be kept and why?
5	Describe the types of the warning systems that may be present on overhead cranes.
6	In the event of illness or breakdown, where can the emergency procedures for egress/evacuation on cabbed types of overhead crane be found?
7	If during the lifting of a load, the slinger notices that the accessory is not attached correctly, what is the first verbal instruction (via radio) that must be given to the crane operator?
8	On remote or pendant controlled overhead cranes, before following a load on foot to the landing area, what should be taken into account?
9	Name THREE ways that the operator can contribute to the successful completion of the work programme
10	What makes up the total (or gross) weight of a load that is to be lifted?
11	What information is needed when estimating the weight of a load?
12	What is the meaning of this hand signal (being demonstrated by the Tester)?
13	What constitutes the working area of the crane?
14	If the lifting of persons needs to take place, what THREE factors must be taken into account?
15	Explain THREE factors that could affect the integrity an exclusion zone and safe movements within the working area.

No.	Question
16	Using the Operator's Manual or other information source, what is the procedure for checking the hoisting limit switch for the crane on the test
17	During a rest break, or leaving the crane for a short period, what actions should be taken?
18	Outline when checks and thorough examinations are required to be carried out for both an overhead travelling crane and the lifting accessories.
19	If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the crane operator before use?
20	Before the lifting accessories are connected to the load, what needs to be taken into account once the load has been placed?
21	Before a load is lifted and travelled to the landing area, what THREE factors need to be taken into account with regards to the landing area?
22	What problems can be created when operating the crane in high-speed drive?
23	If lifting loads to below ground level, name THREE considerations that need to be taken into account.
24	What is the purpose of a risk assessment?
25	Crane operators are generally regarded as 'safety-critical' workers. What does this mean?
26	Name FOUR different types or levels of sanctions that can be applied (by employers and judicial bodies) to plant operators who do not comply with, or follow legislation and regulations?
27	During the lifting operation, part of the task cannot be carried out as detailed in the lift plan. a) What initially must happen to the lifting operation and b) who authorises any changes?
28	If the hook block inadvertently (accidentally) lands, what course of action should be taken?
29	When travelling with a load, where should the operator be looking?
30	What checks should be made to the remote-controlled unit before work?

No.	Question
31	If a load of 6 tonnes is lifted on 2 falls or lines of rope, what is the tension in each fall or line?
32	On a busy construction site, if required, how would the slinger/signaller be identified to the crane operator?
33	How can a qualification or card benefit a crane operator?
34	Name THREE proximity hazards that could be within the working area of the crane.
35	What are the THREE actions or stages that a crane operator undertakes during pre-use checks?
36	Name TWO things that happen if the hoist rope is not vertical when lifting a load.
37	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
38	Name TWO ways that wet weather can affect lifting operations.
39	State the functions or job role of the following personnel:  a) Appointed Person, b) Crane/lifting operations Supervisor, c) Slinger, d) Signaller.
40	Name TWO advantages of using an overhead crane over other forms of lifting equipment.
41	Name TWO effects of excessive load swing.
42	When would a load require netting?
43	When using a radio remote unit, what should be taken into account if the operator remains in a static position whilst a load is being travelled?
44	What do The Work at Height Regulations require of crane operations?
45	Apart from the operator, who else may need to use the machine's Operator's Manual?

No.	Question
46	Using the Operator's Manual or other information source, state the maximum wind speed that the crane may be operated in
47	What THREE main duties of The Health and Safety at Work Act must employees follow?
48	If a heavy load is being travelled at high speed, what TWO factors must the operator (and signaller) take into account when the load reaches the placing point?
49	What is the definition of, or how can a hazard be described?
50	a) How does the number of lines or falls of rope affect the lifting capacity for the crane and b) how is hoist speed affected when the number of lines (or falls of rope) is reduced?
51	If the legs of a chain sling are more than 90 degrees apart from each other, what happens to the SWL (WLL)?
52	The operator has to use a new model of Overhead Travelling Crane that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the operator to have?
53	Only two legs of a 4 tonne 4 leg chain sling are being used. What is the maximum load that can be lifted?
54	Within the construction and allied sectors, apart from lifting using the hook, what other type of work can overhead travelling cranes undertake?
55	List SIX typical subject areas that should be covered in a site induction.
56	How can wind speeds affect the lifting operation?
57	At the end of the shift: a) what THREE security measures should be applied and b) why?
58	Name THREE ways that trips, slips and falls in the working area can be caused.
59	What do the words SWL, as stamped on lifting accessories, signify?
60	If setting up to lift loads where there are pedestrian designated walkways within the working area, what main factor needs to be taken into account?



No.	Question
61	At the end of the shift, in what position and condition should the hook be left in?
62	a) When is a trial lift carried out and b) name THREE checks to be made.
63	For externally-located travelling cranes, wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
64	What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
65	What would happen if the operator faces away from the crane whilst using the remote control unit?
66	What prevents the hook block from contacting the pulley if raised too high?
67	Two cranes are working in the same vicinity that encroach the working area of each. What actions would the lift plan or method statement normally specify?
68	The safe working load (SWL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
69	a) What checks should be made to the running rails and support structure and b) when should the checks be made?
70	What is meant by centre of gravity, or how is the centre of gravity determined on a load to be lifted?



No.	Question
1	If assisting in fitting a fly jib/extension to the crane, why is it important that the manufacturer's procedures are followed precisely?
2	During the lifting operation, part of the task cannot be carried out as detailed in the lift plan.  a) What initially must happen to the lifting operation and b) who authorises any changes?
3	If a load of 5 tonnes is lifted on two falls or lines of rope, what is the tension in each fall or line?
4	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
5	On mobile units, state the possible effect of lifting downhill on a slope.
6	If setting up to lift loads in a pedestrianised area, state THREE factors that need to be taken into account.
7	Use chart A, B or C on the lifting capacity diagrams for A66A, A66B or A66C respectively. For A66D, use chart A66A. For chart A – a) what is the maximum lifting capacity, b) what is the maximum lift capacity at 10 metres radius and c) if a load of 1800 kg needs to be lifted to a height of 12 metres, what is the maximum available radius? For chart B – a) what is the maximum working height (to the nearest 0.2 metres), b) what is the maximum outreach (to nearest 0.2 metres) and c) on the first stage boom extension, what is the difference in kilograms when lowering from full raise to horizontal? For chart C – a) what is the maximum working height (to the nearest 0.2 metres), b) at what radius and height can a load of 0.3 tonnes be placed and c) what is the lift capacity at maximum reach?
8	If checking the oil level using a dipstick, why must gloves be worn?
9	If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take?
10	If the hook block inadvertently (accidentally) lands, what course of action should be taken?
11	Name THREE ways that a hired-in crane operator can contribute in ensuring repeat business with the client or principal contractor.
12	What is the purpose of counterweight(s) on the crane?
13	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.



No.	Question
14	Only one leg of a 4-tonne two-legged chain sling is being used. What is the maximum load that can be lifted?
15	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
16	If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the crane operator before use?
17	What is meant by the footprint of the crane?
18	What makes up the total (or gross) weight of a load that is to be lifted?
19	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
20	What is the difference between a contract lift and a 'standard' crane hire?
21	Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
22	Two cranes are working in the same vicinity that encroach the operating radius of each. What actions would the lift plan or method statement normally specify?
23	Name TWO things that happen if the hoist rope (or lifting accessories) is (are) not vertical when lifting a load.
24	a) Which part of the crane applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
25	What is the main purpose of the Rated Capacity Indicator (RCI) or Load Moment Indicator (LMI)?
26	State the functions or job role of the following personnel:  a) appointed person, b) crane supervisor, c) slinger, d) signaller.
27	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
28	a) When is a trial lift carried out and b) name THREE checks to be made?



No.	Question
29	When working in a confined area or space, name THREE dangers that can be present.
30	What are the THREE actions or stages that a crane operator undertakes during pre-use inspections?
31	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
32	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences?
33	What do the letters SWL signify, as stamped on lifting accessories?
34	Give FOUR reasons that may cause the crane to overturn.
35	The safe working load (SWL) of a multi-leg chain slings only applies in what TWO conditions or configurations?
36	What prevents the hook block from contacting the jib pulley?
37	On hoist-rope cranes, the number of falls has been changed on the hook block. How has this action affected the RCI/LMI?
38	On a busy construction site, how would the slinger/signaller be identified to the crane operator?
39	Before leaving for a rest break, after parking and switching off the machine, what final action must be carried out?
40	If a load is slewed (or turned) rather quickly, what TWO initial effects does it have on the load whilst slewing?
41	When MUST a banksman or signaller be used before moving a crane?
42	As a slewing crane rotates through 360 degrees with a load, what happens to the loading on each outrigger?
43	Which parts of the crane is the radius (for lifting) measured from?



#### **Technical Test Theory**

**Compact Crane A66** 

No.	Question
44	What THREE main duties of The Health and Safety at Work Act must employees follow?
45	What effect can a swinging load have on a crane?
46	Using the Operator's Manual, state the cold-starting procedure for the crane.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
47	List SIX typical subject areas that should be covered in a site induction.
48	What is the purpose of a roll or ROPS frame?
49	a) If fitted, who only can authorise partial outrigger extensions and b) what is the effect on lifting capacity if partially extending the outriggers?
50	What is the purpose of a risk assessment?
51	What checks should be made to the transmitter of a remote-controlled crane before work?
52	If applicable, why should the crane be re-fuelled at the end of the day?
53	When would a fly jib or extension be fitted and used?
54	Where should the Operator's Manual be kept and why?
55	Why are crane operators generally regarded as 'safety-critical' workers?
56	When working in a confined area or space:  a) What danger can be present with regards to the counterweight of the machine,  b) when should measures be taken and c) what measures should be implemented?
57	Apart from the operator, who else may need to use the machine's Operator's Manual?
58	What is the meaning of this hand signal (being demonstrated by the Tester)?



No.	Question
59	What is the definition of, or how can a hazard be described?
60	a) What is the minimum distance allowed near open trenches when travelling the crane and b) explain why?
61	Why must the seat belt be worn, even though a ROPS frame or cab is fitted?
62	If asked to travel with a suspended load, name FIVE factors that must be taken into account by the operator before moving.
63	The operator has to use a new model of compact crane that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the operator to have?
64	What information is needed when estimating the weight of a load?
65	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
66	In what situation does a hard hat NOT need to be worn when operating a compact crane?
67	a) What is meant by the lifting capacity of the crane and b) who determines it?
68	On hoist-rope units, if a heavy load is being slewed at high speed over at least 180 degrees, what TWO factors must the operator (and signaller) take into account?
69	How can a qualification or card benefit a crane operator?
70	Using the Operator's Manual, state the figure for the tyre pressures or checks to be made to the track belts.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
71	a) What is the purpose of a Method Statement and b) what is required of the operator?
72	a) How does the number of lines or falls of rope affect the lifting capacity for the crane and b) how is hoist speed affected when the number of lines (or falls of rope) is reduced?
73	Name THREE ways in which wind speed can affect the lifting operation.

### **Technical Test Theory Tunnel Locomotive A67**

No.	Question
1	If a locomotive has derailed, who determines how and where it is to be repaired?
2	Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
3	Who decides the positioning of the tunnel locomotive when being loaded?
4	Give TWO examples of where The Work at Height Regulations may apply to tunnel locomotives.
5	What are the additional requirements for a weekend shut down over an end of shift shutdown (where the differences are of over 12 hours)?
6	Name THREE types of communication.
7	Why are the couplings on rolling stock free to swivel?
8	If all communications fail or visibility is lost when breasting a blind, what TWO actions must be taken?
9	Why should the limbs of the operator not exceed the confines of the cab when travelling?
10	a) What is the purpose of a Method Statement and b) what is required of the operator?
11	Name FOUR actions to be taken when approaching and passing personnel in a tunnel.
12	What should be the first thing to be attached after coupling up any item of rolling stock?
13	What different forms of communication are used within a tunnel to safely control locomotive movements?
14	Where should the tunnel locomotive's Operator's Manual be kept and why?
15	Name THREE types of defect that could affect locomotive stability.

#### **Technical Test Theory**

**Tunnel Locomotive A67** 

No.	Question
16	Who is permitted to shunt in the pit bottom area?
17	If two short sharp blasts are sounded on a horn, what does this indicate?
18	What is the process for a) refuelling a diesel locomotive and b) what control measures need to be in place?
19	What distance should the front and rear lights be visible from?
20	When traversing in a tunnel, name THREE hazards that can occur.
21	The operator has to use a new type of tunnel locomotive that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
22	What is the procedure for moving off?
23	When would the sanders on a locomotive be used?
24	What is the minimum distance that any hot works/grinder operations etc. should be away from the fuelling point of any locomotive?
25	What is the sequence of actions should a locomotive start to skid?
26	Give TWO purposes for showing a red light.
27	a) Give ONE advantage and b) TWO disadvantages of rear-mounted cameras.
28	When parking, where should the tunnel locomotive NOT be parked.
29	What is the recommended emergency stopping distance of a loaded train?
30	What could be a consequence of travelling over a set of points that have not fully closed?

### **Technical Test Theory Tunnel Locomotive A67**

No.	Question
31	When reporting defects to either a locomotive and/or associated track, what TWO actions must a locomotive operator undertake?
32	Name FOUR hazards that can occur with overhanging loads.
33	What TWO types of information can a locomotive speedometer indicate?
34	Who is ultimately responsible for the safe transportation of loads that are placed into/onto the rolling stock?
35	State THREE instances when a locomotive operator should sound an audible warning device.
36	Give TWO reasons why the cab should be kept clear of tools, rubbish etc.
37	What is the definition of, or how can a hazard be described?
38	If approaching a crossing to traverse from one set of rails to another and one set of points is not fully closed, what actions should be taken?
39	Name THREE ways that a locomotive operator can contribute to ensuring repeat business with the client or main contractor.
40	a) Couplings are subject to what THREE types of potential defects and b) what can cause premature failure of couplings?
41	What mechanical lifting equipment could be used for re-railment purposes?
42	a) What are the FOUR standard horn signals when working underground and b) what does each signal signify?
43	List SIX typical subject areas that should be covered in a site induction.
44	Name FIVE components which need to be checked prior to work commencing.
45	When uncoupling rolling stock, state the procedure that must be followed.

### **Technical Test Theory Tunnel Locomotive A67**

No.	Question
46	If a tunnel locomotive is fitted with a turbo-charged engine: a) what is the normal procedure before switching off the engine after working and b) what happens if the procedure is not followed?
47	Why should a tunnel locomotive be re-fuelled at the end of the day?
48	Apart from the operator, who else may need to use the machine's Operator's Manual?
49	Where should a locomotive be positioned if no camera is fitted when hauling loads?
50	What FOUR actions in the correct sequence should be taken in the event of a fire on a locomotive?
51	What do the phrases 'inbye' and 'outbye' mean?
52	Using the Operator's Manual, state the shut-down procedure for the locomotive.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
53	Name FOUR materials or substances found on a typical locomotive that can contribute to a fire.
54	Guidance states that visibility from the operators' cab should be sufficient to avoid the need for them to prevent what?
55	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
56	What is a tunnel locomotive operator's main purpose or requirement?
57	a) What are the standard recognised traffic light signal colours when working underground and b) what does each signal colour indicate?
58	Using the Operator's Manual, state the working release pressure for the air braking system (diesel) or the battery charge level (electric).  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
59	Name THREE features that a properly constructed crossing will have.

#### **Technical Test Theory**

**Tunnel Locomotive A67** 

No.	Question
60	Name FOUR components and/or operating systems that are a statutory required on a locomotive.
61	Name TWO ways that an unattached item of rolling stock can be prevented from moving.
62	What is the emergency signal when driving?
63	If operating in the pit bottom: a) what warnings may need to be given and b) when must they be given?
64	What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
65	What can limit the number of diesel-powered locomotives at any given times underground?
66	a) How many track bolts would be used to secure a standard set of fish plates to the rail and b) what would be the consequences of loose or missing track bolts?
67	Name FOUR different types or levels of sanctions that can be applied to plant operators who do not comply with, or follow legislation and regulations.
68	What is the purpose of a risk assessment?
69	Other than the braking system, name TWO safety devices used in a tunnel system to halt locomotives.
70	Give TWO reasons why the tunnel locomotive operator should have an understanding of the type of material being transported.
71	Where should the ignition key be kept when a locomotive is not is use?
72	Explain the process for removing a broken-down locomotive from a tunnel.
73	What THREE main duties of the Health and Safety at Work Act must employees follow?
74	Name THREE factors that can cause a lack of traction when moving away from rest.



**Tunnel Locomotive A67** 

No.	Question
75	How can a qualification or card benefit a plant operator?
76	When leaving a battery locomotive at the end of the shift, what TWO actions must the operator ensure?
77	a) Why should battery locomotives not be charged whilst underground and b) why?
78	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
79	What must be used when buffers are not at the same height or type?
80	Name FIVE control measures that need to be in place when personnel are working in a tunnel.
81	On start up, the air pressure on a locomotive with pneumatic systems is low. What actions must the operator carry out before work and during work?

#### **A68 - Plant Driving Notes**

The questions for this category are divided into three sets.

#### Sets 1, 2 and 3 (Non-operational and Loading/unloading):

Needs to be undertaken for those requiring non-operational and loading /unloading endorsements

#### Set 1 (Non-operational):

Needs to be undertaken by those requiring non-operational endorsements only.

#### Sets 2 and 3 (Loading/unloading):

Needs to be taken for existing cardholders adding loading/unloading endorsements.

#### Set 3 (Loading/unloading):

Only needs to be undertaken by those adding loading/unloading endorsements during the test for another plant category.



Plant Driving - All Sets A68

No.	Question
1	What is the meaning of this hand signal (being demonstrated by the tester)?
2	When loading a large item of plant and using a signaller, what action should the driver take if they lose sight of the signaller?
3	Where would the machine's Operator's Manual be found and why?
4	List SIX typical subject areas that should be covered in a site induction.
5	Making tight turns with tracked plant can cause what TWO effects?
6	Before leaving the cab and after switching off the machine, what final action must be carried out and why?
7	Give TWO examples of where The Work at Height Regulations may apply to the driving of plant.
8	If a trench has a depth of 2.0 metres: a) what is the minimum distance to maintain from the edge of the trench when travelling and b) explain why.
9	On machines fitted with a high cab, what issue could arise when loading or unloading from a transporter fitted with ramps?
10	Name FOUR different types or levels of sanctions that can be applied (by employers and judicial bodies) to plant drivers who do not comply with, or follow legislation and regulations.
11	What THREE main duties of the Health and Safety at Work Act must employees follow?
12	Why would the holding of a card be of benefit to the plant driver?
13	Before loading an item of plant, what must taken into account once the machine is on the transporter and the engine switched off?
14	Before driving a machine away from rest, what final check must be made?
15	If the machine is being travelled on the public highway, including adjacent pavements and verges, the Road Traffic Act applies. a) What type of licence and which classes should the driver hold and b) what is the minimum age allowed?

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Plant Driving - All Sets A68

No.	Question
16	Using the Operator's Manual, for tracked units, state how track tension should be set: for wheeled units, state the tyres' operating pressure or for rollers; state how the scraper bars should be set.
17	If loading a smooth drum ride-on roller, how can friction between the drums and the transporter ramps/bed be increased?
18	The driver has to manoeuvre a new type of machine. What do Regulations (i.e. PUWER 98) and other guidance require the driver to have?
19	Using the Operator's Manual, state the cold-starting procedure for the machine.
20	a) What is the purpose of a Method Statement and b) what is required of the driver?
21	The transporter is parked on soft ground. What can happen if an item of plant is placed on the transporter?
22	When steering wheeled plant with long rigid chassis around tight corners, what should be taken into account?
23	If an item of plant is being loaded and where it is known that the parking brake is not fully effective, what action must be taken?
24	On articulated-steered plant, what should be engaged after loading?
25	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
26	When can additional personnel be transported around on site?
27	During the loading process, in terms of the plant, what is the transporter driver responsible for?
28	What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
29	What could occur if loading an item of plant onto a transporter with a poor quality or damaged bed?
30	Give THREE possible reasons why drivers of plant should not stray off the designated travel routes on site.

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Plant Driving - All Sets A68

No.	Question
31	Before loading or unloading plant on the public highway, what specific measures must be considered?
32	If required to drive an item of plant on site for maintenance or loading purposes, what must be checked on arrival to the site?
33	According to the Road Traffic Act 1988, when is loading and unloading allowed on verges or footpaths?
34	What is a possible consequence of driving wheeled plant where there was a deep cut in the sidewall of a tyre?
35	In what situation does a hard hat not need to be worn when driving on a construction site?
36	Manufacturers must give recommendations on how to travel plant up and down inclines. If this information is not known first hand, what is the general rule about travelling up and down slopes?
37	If an item of plant overhangs the trailer in excess of 305 mm, what effect does this have on transport operations?
38	Before driving an item of plant (such as a dump truck) on a site where reversing may be involved, what should be checked before starting?
39	What could be the effect on driving a machine whereby either a counterweight, boom or bucket had been removed?
40	Before leaving the cab, what must be done before the engine is switched off?
41	If setting up to load or unload plant next to a pedestrian footpath, what action should be taken?
42	Manoeuvring an articulated chassis plant in a restricted space requires what particular care?
43	On boom-equipped plant with an upper rotating structure, what TWO actions should be taken before slewing?
44	If driving a machine in an area where the general public have access, what action should be taken?
45	When loading, what is considered is the optimum, or best position to place an item of plant?

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Plant Driving - All Sets A68

No.	Question
46	Name THREE ways in which a driver can minimise their impact upon the environment whilst driving the machine.
47	When MUST a banksman/signaller be used before moving any item of plant?
48	Give THREE reasons that may cause the machine to tip over – forwards and/or sideways - whilst driving.
49	Whenever possible, who should decide the positioning of the transporter for loading?
50	When parking the machine after use, name THREE places where the machine should NOT be parked.
51	When driving/manoeuvring plant in a confined area or space, what could be the risks?
52	Before travelling, what TWO precautions need to be taking if travelling an item of plant fitted with a long boom and/or dipper length
53	If after loading, the driver cannot egress or disembark the transporter via the ramps, what method should be used
54	What is the purpose of a risk assessment?
55	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
56	Using the machine's Operator's Manual, state the procedure for preparing and loading the machine onto a transporter.
57	Why must the pressure in hydraulically operated equipment or attachments such as booms etc. be depressurised after parking, even though grounded?
58	After being loaded, what checks should be made to machines equipped with a cab?
59	Name SIX safety considerations that should be taken into account when selecting a site for the loading or unloading plant.
60	Once a transporter is positioned, state SIX actions that to be considered before loading commences.

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Plant Driving - All Sets A68

No.	Question
61	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
62	Why must the seat belt always be worn, even with the cab door closed?
63	Off road tyres have deep grooves or raised lugs. Explain a) the purpose of the raised lugs/grooves and b) what can happen to the machine when driving if the lugs or grooves are severely worn?
64	Whenever possible, who should decide the positioning of the transporter for loading?
65	If the driver needs to top-up the hydraulic oil of a machine before it can be moved, state TWO precautions to ensure cleanliness of the system.
66	When tracked plant reaches the top of the ramp of a transporter, give TWO reasons why care must be taken?
67	If checking the oil level using a dipstick, why must gloves be worn?
68	What is the definition of, or how can a hazard be described?
69	When travelling on wet clay, what effect could this have on the machine, particularly on wheeled plant and rollers?
70	When loading an item of plant, at what point can strong winds have an effect on the operation?
71	What is the purpose of a roll or ROPS frame?
72	What is the meaning of this hand signal (being demonstrated by the Tester)?

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#### **Technical Test Theory**

No.	Question
1	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
2	When MUST a banksman/signaller be used before moving any item of plant?
3	If the machine is being travelled on the public highway, including adjacent pavements and verges, the Road Traffic Act applies.  a) What type of licence and which classes should the driver hold and b) what is the minimum age allowed?
4	What is the definition of, or how can a hazard be described?
5	What could be the effect on driving a machine whereby either a counterweight, boom or bucket had been removed?
6	When travelling on wet clay, what effect could this have on the machine, particularly on wheeled plant and rollers?
7	What is the purpose of a roll or ROPS frame?
8	Manufacturers must give recommendations on how to travel plant up and down inclines. If this information is not known first hand, what is the general rule about travelling up and down slopes?
9	Before driving a machine away from rest, what final check must be made?
10	What is a possible consequence of driving wheeled plant where there was a deep cut in the sidewall of a tyre?
11	Before leaving the cab and after switching off the machine, what final action must be carried out and why?
12	If required to drive an item of plant on site for maintenance or loading purposes, what must be checked on arrival to the site?
13	Before driving an item of plant (such as a dump truck) on a site where reversing may be involved, what should be checked before starting?
14	Before leaving the cab, what must be done before the engine is switched off?
15	28. Give THREE possible reasons why drivers of plant should not stray off the designated travel routes on site.

No.	Question
16	If driving a machine in an area where the general public have access, what action should be taken?
17	If the driver needs to top-up the hydraulic oil of a machine before it can be moved, state TWO precautions to ensure cleanliness of the system.
18	If a trench has a depth of 2.0 metres: a) what is the minimum distance to maintain from the edge of the trench when travelling and b) explain why.
19	Before travelling, what TWO precautions need to be taking if travelling an item of plant fitted with a long boom and/or dipper length
20	Give THREE reasons that may cause the machine to tip over – forwards and/or sideways - whilst driving.
21	On boom-equipped plant with an upper rotating structure, what TWO actions should be taken before slewing?
22	Using the Operator's Manual, state the cold-starting procedure for the machine.
23	Manoeuvring an articulated chassis plant in a restricted space requires what particular care?
24	What is the purpose of a risk assessment?
25	What is the meaning of this hand signal (being demonstrated by the tester)?
26	When parking the machine after use, name THREE places where the machine should NOT be parked.
27	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
28	Off road tyres have deep grooves or raised lugs. Explain a) the purpose of the raised lugs/grooves and b) what can happen to the machine when driving if the lugs or grooves are severely worn?
29	In what situation does a hard hat not need to be worn when driving on a construction site?
30	Name FOUR different types or levels of sanctions that can be applied (by employers and judicial bodies) to plant drivers who do not comply with, or follow legislation and regulations.

#### **Technical Test Theory**

No.	Question
31	a) What is the purpose of a Method Statement and b) what is required of the driver?
32	What THREE main duties of the Health and Safety at Work Act must employees follow?
33	When can additional personnel be transported around on site?
34	Give TWO examples of where The Work at Height Regulations may apply to the driving of plant.
35	Where would the machine's Operator's Manual be found and why?
36	Name THREE ways in which a driver can minimise their impact upon the environment whilst driving the machine.
37	Using the Operator's Manual, for tracked units, state how track tension should be set: for wheeled units, state the tyres' operating pressure or for rollers; state how the scraper bars should be set.
38	When steering wheeled plant with long rigid chassis around tight corners, what should be taken into account?
39	When driving/manoeuvring plant in a confined area or space, what could be the risks?
40	List SIX typical subject areas that should be covered in a site induction.
41	Making tight turns with tracked plant can cause what TWO effects?
42	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
43	The driver has to manoeuvre a new type of machine. What do Regulations (i.e. PUWER 98) and other guidance require the driver to have?
44	Why must the seat belt always be worn, even with the cab door closed?
45	If checking the oil level using a dipstick, why must gloves be worn?



No.	Question
46	Why would the holding of a card be of benefit to the plant driver?
47	What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?

#### **Technical Test Theory**

No.	Question
1	Before loading or unloading plant on the public highway, what specific measures must be considered?
2	Whenever possible, who should decide the positioning of the transporter for loading?
3	If setting up to load or unload plant next to a pedestrian footpath, what action should be taken?
4	When loading, what is considered is the optimum, or best position to place an item of plant?
5	When loading an item of plant, at what point can strong winds have an effect on the operation?
6	What could occur if loading an item of plant onto a transporter with a poor quality or damaged bed?
7	Before loading an item of plant, what must taken into account once the machine is on the transporter and the engine switched off?
8	Name SIX safety considerations that should be taken into account when selecting a site for the loading or unloading plant.
9	If after loading, the driver cannot egress or disembark the transporter via the ramps, what method should be used?
10	If an item of plant overhangs the trailer in excess of 305 mm, what effect does this have on transport operations?
11	Why must the pressure in hydraulically operated equipment or attachments such as booms etc. be depressurised after parking, even though grounded?
12	The transporter is parked on soft ground. What can happen if an item of plant is placed on the transporter?
13	If an item of plant is being loaded and where it is known that the parking brake is not fully effective, what action must be taken?
14	On machines fitted with a high cab, what issue could arise when loading or unloading from a transporter fitted with ramps?
15	According to the Road Traffic Act 1988, when is loading and unloading allowed on verges or footpaths?
16	When loading a large item of plant and using a signaller, what action should the driver take if they lose sight of the signaller?

### Technical Test Theory Plant Driving - Sets 2 & 3 A68 (2 & 3)

No.	Question
1	<ul><li>a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and</li><li>b) explain why a distance should be kept.</li></ul>
2	What could occur if loading an item of plant onto a transporter with a poor quality or damaged bed?
3	The transporter is parked on soft ground. What can happen if an item of plant is placed on the transporter?
4	If loading a smooth drum ride-on roller, how can friction between the drums and the transporter ramps/bed be increased?
5	During the loading process, in terms of the plant, what is the transporter driver responsible for?
6	If an item of plant overhangs the trailer in excess of 305 mm, what effect does this have on transport operations?
7	When loading an item of plant, at what point can strong winds have an effect on the operation?
8	What is the meaning of this hand signal (being demonstrated by the Tester)?
9	On articulated-steered plant, what should be engaged after loading?
10	Whenever possible, who should decide the positioning of the transporter for loading?
11	Before loading or unloading plant on the public highway, what specific measures must be considered?
12	Whenever possible, who should decide the positioning of the transporter for loading?
13	Why must the pressure in hydraulically operated equipment or attachments such as booms etc. be depressurised after parking, even though grounded?
14	Once a transporter is positioned, state SIX actions that to be considered before loading commences.
15	If an item of plant is being loaded and where it is known that the parking brake is not fully effective, what action must be taken?



### Technical Test Theory Plant Driving - Sets 2 & 3 A68 (2 & 3)

No.	Question
16	If setting up to load or unload plant next to a pedestrian footpath, what action should be taken?
17	Before loading an item of plant, what must taken into account once the machine is on the transporter and the engine switched off?
18	Name SIX safety considerations that should be taken into account when selecting a site for the loading or unloading plant.
19	When loading a large item of plant and using a signaller, what action should the driver take if they lose sight of the signaller?
20	After being loaded, what checks should be made to machines equipped with a cab?
21	Using the machine's Operator's Manual, state the procedure for preparing and loading the machine onto a transporter.
22	When loading, what is considered is the optimum, or best position to place an item of plant?
23	If after loading, the driver cannot egress or disembark the transporter via the ramps, what method should be used?
24	According to the Road Traffic Act 1988, when is loading and unloading allowed on verges or footpaths?
25	When tracked plant reaches the top of the ramp of a transporter, give TWO reasons why care must be taken?
26	On machines fitted with a high cab, what issue could arise when loading or unloading from a transporter fitted with ramps?



No.	Question
1	List SIX typical subject areas that should be covered in a site induction.
2	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
3	What is the difference between an integrated and non-integrated soil stabiliser?
4	Why must the seat belt be worn at all times, even with the cab door closed?
5	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
6	When checking the connection of mounted units to the tractor, how should the safety/lynch pin be configured or fitted?
7	State FOUR checks that needs to be made to machine before loading any binding material.
8	If washing down a machine following work a) what should be taken into account with the washing residue and b) why?
9	When parking the machine at the end of the shift, name THREE places where the stabiliser or spreader should NOT be parked.
10	When travelling on wet clay, what effect does this have on the soil stabiliser or spreader?
11	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
12	Describe the aims of mixing a binding material into soil.
13	How can a qualification or card benefit a plant operator?
14	Why should the parking brake be fully applied when parking, and not just be left in gear?
15	What is a possible consequence of using a tyre with a deep cut in the sidewall?



No.	Question
16	Apart from the operator, who else may need to use the machine's Operator's Manual?
17	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
18	What TWO factors determine a consistent spread of the binding material along each pass?
19	a) On towed units, when should 4-wheel drive not be selected and b) explain why?
20	a) What is the minimum distance allowed near open trenches when travelling with a soil stabiliser and b) explain why?
21	What sort of authorisation should be in place before starting incorporation activities?
22	a) If setting up to work near to the general public and/or other site workers, state THREE factors that need to be taken into account and b) what measure need to be put in place to minimise those factors.
23	When working in a restricted area or space, name TWO hazards that can occur.
24	Where required, in what situation does a hard hat NOT need to be worn when operating a soil stabiliser or spreader?
25	Before attempting to clear the mixing/rotor area of excess material, what is the first action that must be undertaken?
26	What is the meaning of this hand signal (being demonstrated by the Tester)?
27	What is the purpose of a risk assessment?
28	Where should the soil stabiliser or spreaders Operator's Manual be kept and why?
29	Who should determine the maximum load that is to be placed into the hopper?
30	On a spreader, what is the purpose of metering the feed of material?



No.	Question
31	What speeds are the PTO shafts for towed units normally driven at?
32	Name FOUR different types or levels of sanctions that can be applied to plant operators who do not comply with, or follow legislation and regulations.
33	Name FOUR way that the body can be affected if coming into contact with lime or cement.
34	How are stones or other material prevented from flying out during incorporation?
35	What could be the results of poor incorporation?
36	List THREE items be looked for when carrying out post-operational checks on stabilisers.
37	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and  b) state FOUR actions to be considered by the operator before loading commences?
38	Name at least TWO conditions that are likely to cause instability of integrated stabilisers.
39	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
40	What is the most common method of driving the mixing rotor from the machine's gearbox/power source?
41	Name at least THREE specific items of personal protection would be required if loading the hopper using a pressurised system.
42	What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
43	Name TWO types of binding material that is used in the soil stabilisation process?
44	If travelling over binder, what TWO precautions need to be taken?
45	a) What is the purpose of a Method Statement and b) what is required of the operator?



No.	Question
46	What is the purpose of a ROPS cab?
47	The operator has to use a new type of implement that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
48	What THREE main duties of the Health and Safety at Work Act must employees follow?
49	What is the purpose of a stop block or earth bank (berm) at a trench/batter?
50	Using the Operator's Manual, state the figure for the tyres' operating pressure.
51	On integrated units, a) what danger can occur if travelling whilst fully loaded on a slope and b) explain why?
52	What problems and hazards can soft ground cause to a soil stabiliser or spreader?
53	If checking the oil level using a dipstick, why must gloves be worn?
54	If applicable, whenever possible, who should decide the positioning of the stabiliser when being loaded by a tanker/silo?
55	Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
56	High winds can cause what THREE effects on the incorporation process?
57	If mixing a material in which water was added through the machine, what needs to be done at the end of the shift?
58	a) Name THREE purposes of the raised lugs on tyres and b) what can happen to a soil stabiliser or spreader if the lugs are severely worn?
59	Why should a soil stabiliser or spreader be re-fuelled at the end of the day?
60	What is the purpose of the air vent valve on the hopper?



No.	Question
61	What is the definition of, or how can a hazard be described?
62	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor
63	If the operator has to top-up the transmission oil, state TWO precautions to ensure cleanliness of the system.
64	Larger soil stabilisers or tractor-based spreaders tend to have a turbo-charged engine.  a) What is the normal procedure before switching off the engine after working and  b) what happens if the procedure is not followed?
65	In what applications would the 'crab steering mode' be used for?
66	On towed units, describe one application when the hand throttle can safely be used.
67	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
68	What THREE factors determine the effectiveness of incorporating a binding material into soils?
69	Give THREE possible reasons why a soil stabiliser or spreader should not stray off the designated travel routes.
70	How is the depth of work controlled on a) self-propelled units and b) on towed units?



No.	Question
1	Before actually pouring any concrete, what action should the operator take to ensure the safety of concrete laying gang/team?
2	If topping up the hydraulic tank with oil, why must gloves be worn?
3	What is the purpose of pumping grout through the pipeline?
4	When working in a restricted area/space, name THREE dangers that can be present.
5	What is the meaning of this hand signal (being demonstrated by the Tester)?
6	Name THREE checks that must be made on the pipeline from the pump to the placing boom before use.
7	Before cleaning with water or compressed air, what should be removed from the boom?
8	What are the main component parts of a concrete mix?
9	If the boom is to be operated from a fixed operating station/position, what should be ensured for the safety of the operator?
10	Where should the User's Manual be kept and why?
11	What is the purpose of the blanking piece?
12	a) If a blockage occurs, what first action must be taken by the operator and b) what must be actioned before the blockage can be cleared?
13	If pipelines have to be connected to scaffolding, what TWO factors must be ensured?
14	What checks need to be made to ensure that the boom structure is stable before work starts?
15	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.

No.	Question
16	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
17	If, as a last resort, using compressed air to clean the system, what must be ensured of the operator?
18	a) What is considered the safest method of cleaning the system and b) explain why?
19	What checks should be made to the transmitter of a remote-controlled boom before work?
20	When repositioning the boom to a different location during the pour, what action should be taken with the flexible hose?
21	Before the start for work: a) How should signallers be identified and b) what should be agreed between the boom operator and a signaller?
22	What are the THREE actions or stages that a placing boom operator undertakes during pre-use inspections?
23	a) What is the purpose of a Method Statement and b) what is required of the operator?
24	Using the Operator's Manual, state the required length of the delivery hose.
25	What TWO effects can high wind speeds have on placing boom operations?
26	The operator has to use a new type of boom that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
27	What specific checks should be made to the quick release couplings before and during pumping operations?
28	Which two parts of the boom is the operating radius measured from?
29	What FOUR actions should be taken if a hydraulic hose bursts during work?
30	When slewing the boom or changing the working different radius during pumping, what should be checked in relation to the hose?

No.	Question
31	What is the purpose of a risk assessment?
32	When attaching the placement hose to the boom, what TWO additional items must be fitted?
33	What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
34	If setting up to pour concrete adjacent to a pedestrianised area, state THREE factors that need to be taken into account.
35	What ways should a pipeline be secured to a building/structure in both a) the vertical and b) the horizontal planes?
36	Why must the thickness of steel pipelines be checked on a regular basis?
37	If using a remote control, what action should the operator take if they need to leave the operating station during pumping?
38	If the pedestal area needs to be accessed before, during or after work, what precautions need to be taken?
39	If radios are to be used during a pumping operation, what FIVE actions and checks must be made by the placing boom operator before use?
40	What is the definition of, or how can a hazard be described?
41	Placing boom operators are generally regarded as 'safety-critical' workers. What does this mean?
42	a) Where would a single ended flex be used and b) why is it used?
43	Give THREE reasons on why the placing hose should not be tied together or folded back on itself?
44	Name FOUR different types or levels of sanctions that can be applied (by employers and judicial bodies) to plant operators who do not comply with, or follow legislation and regulations?
45	Name THREE ways that a placing boom operator can contribute in ensuring repeat business with the client or principal contractor.



No.	Question
46	Using the Operator's Manual, what is the maximum wind speed allowed for operations before shut-down has to occur?
47	During the pumping of material, part of the task cannot be carried out as detailed in the method statement.  a) What initially must happen to the operation and b) who authorises any changes?
48	Describe at least THREE causes of blockages that may occur within the pipeline.
49	a) What additional items (over and above standard site wear) of PPE are required when cleaning out concrete pumps and b) what characteristics must the PPE have?
50	What checks should be made to the couplers?
51	If the words STOP NOW are given to the boom operator by radio during the pumping operation, what action must the operator take?
52	How can a qualification or card benefit a placing boom operator?
53	What THREE instances occur if the placement hose is longer than specified?
54	What THREE main duties of The Health and Safety at Work Act must employees follow?
55	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the boom.
56	Where must waste from the cleaning process not be deposited or kept clear off?
57	What is considered as the danger zone around the placement hose?
58	Apart from the operator, who else may need to use the machine's User's Manual?
59	How should the placing boom be positioned following the end of the pour?
60	What effect does wet concrete have if it comes into contact with the skin, particularly over long periods of exposure?



No.	Question
61	When pumping in hot weather, what should the operator need to take into account?
62	Why are pipelines of different diameters used?
63	List SIX typical subject areas that should be covered in a site induction.
64	Apart from water, what other supervised method can be used to clean out pipelines?
65	When setting up to work, what should be taken into account when near to tower cranes?
66	What action should be taken at the end of the pour in relation to the remote control unit?



No.	Question
1	a) In principle, what is the main responsibility of the plant and vehicle marshaller and b) who remains responsible for ensuring the safe movement of the plant or vehicle?
2	When marshalling plant and vehicles in a given area, what should the marshaller anticipate?
3	Give THREE considerations when PPE for marshalling duties is being selected.
4	What are the advantages of implementing a one way traffic system?
5	Descripe the SIX actions the marshaller should undertake when a delivery vehicle arrives on site to be unloaded at a different area.
6	Give FOUR reasons that may cause an item of plant to tip over sideways.
7	If a transporter is to unload an item of plant, identify THREE factors that the marshaller should consider in terms of the unloading area.
8	What checks must be taken if site conditions change overnight due to adverse weather?
9	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to plant and vehicle marshallers where they do not comply with or follow legislation and regulations.
10	What is the purpose of a logistics or delivery plan?
11	Before marshalling a reversing item of plant or vehicle into an enclosed space, what THREE things should be ensured before movements begin?
12	What TWO things should be considered when selecting a place of refuge or safety within a designated manoeuvring area?
13	If assisting a plant operator to position and configure the item of plant, what should the marshaller take into account?
14	In terms of manoeuvring and travelling name TWO advantages that tracked plant have over a wheeled vehicle.
15	Before being asked to marshall plant or vehicles within a new or unfamiliar work area, what does the marshaller need to undergo?

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No.	Question
16	Name TWO things that a marshaller should check with the operator/driver before their machine transports a load across a site.
17	List THREE methods or ways that site movement plans are conveyed to other workers.
18	Whilst guiding a reversing item of plant or vehicle, the marshaller needs to reposition themselves to maintain eye contact with the operator/driver. Before repositioning themselves, what action must be taken?
19	State TWO possible effects if plant and vehicles stray from or fail to stay on designated haul/access routes.
20	The given traffic plan requires that plant and vehicles follow a certain route. What first course of action should the marshaller take if the plan cannot be followed?
21	What are the possible outcomes where a marshaller has been successfully prosecuted for not following legislation and regulations?
22	A load has just been delivered to a site on a vehicle. Before the securing/restraining gear securing the load is released, what should be ensured?
23	What should a marshaller consider when guiding road transport vehicles compared to site-based plant?
24	What is the minimum distance that plant and vehicles can be travelled or parked from the edge of an excavation?
25	What should the marshaller take into account when positioning an item of plant which is able to slew, such as a 360 degree excavator or crane, in a confined area?
26	If a delivery vehicle has to be unloaded on the public highway, what has to be in place ?
27	Name THREE things that can prevent a driver from seeing the marshaller when being guided by them.
28	If marshalling a vehicle in an area having limited light during hours of darkness/dusk, what would be the first main consideration?
29	What TWO actions should be taken if an unexpected delivery vehicle appears within an area controlled by a marshaller?
30	When using radio communication between a marshaller and driver/operator, apart from a common language, what THREE things should be considered when sending messages?

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No.	Question
31	During a reversing activity, the marshaller notices that the driver/operator is not fully watching them and using other aids e.g. using the reversing mirrors. What TWO actions should the marshaller take?
32	Name THREE factors that could reduce the effectiveness of rear-view mirrors fitted to plant or vehicles.
33	a) When would light sticks or torches be used and b) how do they convey information to a driver/operator and c) what is an advantage of using a light stick for manoeuvring purposes?
34	Name FIVE items that should be found within a traffic management plan.
35	Where a site is divided by a public highway and a plant/vehicle crossing on the public highway is being set up, name THREE aspects that need to be taken into account.
36	Other than the driver/operator, a) state TWO places where information relating to the gross or overall weight of plant or vehicles can be found and b) explain why it is important that the Plant and Vehicle Marshaller needs to know this information?
37	If a delivery vehicle has to shunt backwards and forward when reversing into a site from the public highway, what danger could occur?
38	If the designated travel route becomes blocked or is unavailable due to deterioration in ground conditions, a) what is the first course of action the marshaller should take and b) why?
39	In general, a) what direction should an item of plant be travelled on a steep slope and b) why? Note: The tester may cite several types of plant as examples.
40	List FOUR factors that could cause a loss of vision to the plant/vehicle driver/operator.
41	What procedure would a marshaller follow if an emergency vehicle e.g. ambulance needs to be directed to the place of the emergency?
42	Name FIVE proximity hazards that can occur when plant or vehicles are travelling and manoeuvring on a site.
43	If a tipping vehicle is to discharge a load near to power lines mounted on wooden poles and no goal posts are in place, what is the first course of action?
44	a) Name THREE things that would need to be reported to the supervisor as soon as they occur and b) why should this be undertaken immediately?
45	In what THREE circumstances should a marshaller need to inform a driver/operator to reduce their speed?



No.	Question
46	a) What should the marshaller check before they start to guide and assist an item of plant that is being repositioned? b) what is the general rule for the positioning of the cab on a 360 degree slew type machine when travelling? c) when would there be an exception to this rule?
47	When a marshalling operation for vehicle movements is being planned, list in the order of importance, the FOUR stages that should be taken into account (e.g. what is the first consideration of any planning, then the second stage if the first stage is not achievable etc.)
48	a) What should be considered before anyone unlatches and opens any tailgates to discharge a load and b) before raising the body?
49	Explain FIVE factors that could affect the integrity of an exclusion zone and safe movements within the zone.
50	What factors could affect the movement of plant or vehicles during wet weather compared to dry weather?
51	When receiving visiting delivery vehicles, what should a marshaller consider before directing them to the unloading place on the site?
52	How would a marshaller identify that there is a safe system of work in place?
53	a) In what situation can barriers that are segregating a working area be remove and b) when should they be replaced?
54	If the mashaller is guiding an item of plant or a vehicle near to the edge of an excavation/tipping zone for tipping a load, what control measures must they ensure are in place?
55	If a delivery vehicle needs to be reversed onto the public highway, when can a marshaller legally stop traffic on the highway?
56	When deciding to marshall a reversing vehicle, what TWO considerations should be made to the marshallers position?
57	Before a marshaller approaches an item of plant or vehicle to relay movement instructions to the driver/operator, what TWO actions must be undertaken?
58	Name FOUR possible causes where the marshaller's capabilities could be exceeded?
59	If an item of plant or vehicle is turning on a slope, what can possibly cause the machine to overturn?
60	If driver aids such as reversing cameras are fitted to the item of plant/vehicle, what TWO things should the marshaller establish before movements begin?

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No.	Question
61	Name THREE things that should be checked both prior to and during operations when guiding plant and vehicles on a brownfield construction site?
62	What should a marshaller and a plant/vehicle operator/driver establish prior to any movements of the machine?
63	Scenario 1a: The blind spots or area that the operator is unable to see when been driven forwards (diagrams A & B).
64	Scenario 1b: The blind spots or area that the operator is unable to see when reversing (diagrams A & B).
65	Scenario 1c: Where the marshaller should be positioned when guiding the machine to an edge to discharge the load (diagram B).
66	Scenario 1d: The area outside of the operators natural field of vision or peripheral vision when they are facing forward and driving in a forward direction. (diagram B). Note: this assumes that the operator is not turning their head or body.
67	Scenario 2a: The blind spots or areas where the operator has limited or no visibility.
68	Scenario 2b: The operator's natural zone of visibility when driving forward.
69	Scenario 2c: Where the marshaller should be positioned when guiding the machine when being driven forward.
70	Scenario 3a: The blind spots or area where the operator has limited or no visibility.
71	Scenario 3b: The danger area of the marshaller.
72	Scenario 3c: Where the marshaller should be positioned when guiding the machine.
73	Scenario 4a: The blind spots or area where the operator has limited or no visibility.
74	Scenario 4b: Where the marshaller should be positioned when guiding the reversing machine.

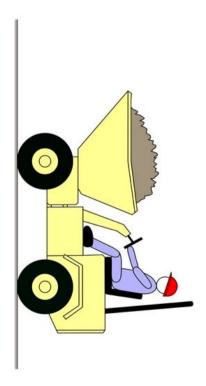
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# CP Construction Plant Technical Test - Scenario 1 CS Competence Scheme Plant and Vehicle Marshaller A73

#### Scenario 1 – Forward Tipping Dumper

The marshaller is guiding a fully loaded 6 tonne forward tipping dumper on site. Demonstrate by drawing or indicating to the tester:

- a) the blind spots or areas that the operator is unable to see when being driven forwards (diagrams A & B)
- b) the blind spots or area that the operator is unable to see when reversing (diagrams A & B)
- c) where the marshaller should be positioned when guiding the machine to an edge to discharge the load (diagram B).
- d) the area outside of the operators natural field of vision or peripheral vision when they are facing forward and driving in a forward direction. (diagram B). Note: this assumes that the operator is not turning their head or body.





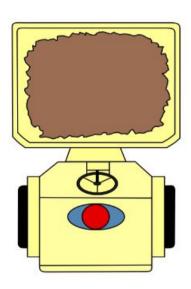


Diagram B

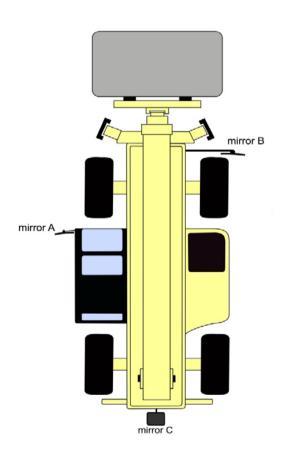
Note: Drawing not to scale

### **CP** Construction Plant **CS** Competence Scheme **Technical Test - Scenario 2 Plant and Vehicle Marshaller A73**

#### Scenario 2 – Telescopic Handler

The marshaller is guiding a 14 metre reach telescopic handler which has a load mounted on the forks. The machine has two rear view mirrors fitted, one located on the top left hand side of the cab, one located on the right hand side on the machine's bodywork just behind the front wheel (indicated) and a close proximity mirror located on the rear of the machine (indicated). Demonstrate by drawing or indicating to the tester:

- a) the blind spots or areas where the operator has limited or no visibility
- b) the operator's natural zone of visibility when driving forward
- c) where the marshaller should be positioned when guiding the machine when being driven forward.



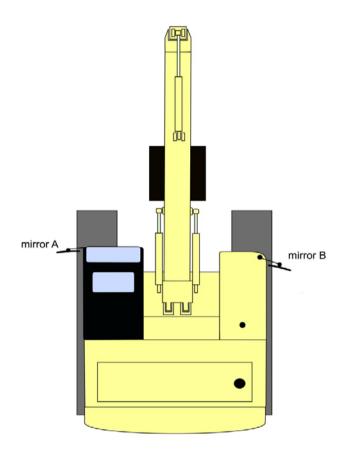
**Note:** Drawing not to scale

#### **Technical Test - Scenario 3 CP** Construction Plant **CS** Competence Scheme Technical Test - Scenario 3 Plant and Vehicle Marshaller A73

#### Scenario 3 – Excavator 360

The marshaller is guiding a 17 tonne excavator 360 to a new working area and on level ground. The machine has two rear view mirrors fitted, one located on the top left hand side of the cab and one located on the front right hand side on the machine's bodywork (indicated). Demonstrate by drawing or indicating to the tester:

- a) the blind spots or area where the operator has limited or no visibility
- b) the danger area for the marshaller
- c) where the marshaller should be positioned when guiding the machine.



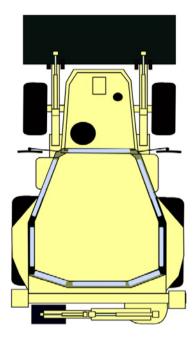
**Note:** Drawing not to scale

#### **Technical Test - Scenario 4 CP** Construction Plant **CS** Competence Scheme Technical Test - Scenario 4 Plant and Vehicle Marshaller A73

#### Scenario 4 - Excavator 180

The marshaller is guiding a reversing excavator 180 into a new working area. The machine has two rear view mirrors fitted, one located on the top left hand side of the cab and one located on the top right hand side of the cab. Demonstrate by drawing or indicating to the tester:

- a) the blind spots or area where the operator has limited or no visibility
- b) where the marshaller should be positioned when guiding the reversing machine.



Note: Drawing not to scale

## **CP** Construction Plant **CS** Competence Scheme

No.	Question
1	List SIX typical subject areas that should be covered in a site induction.
2	When carrying out shut down activities what actions need to be taken a) driven types and b) bored types?
3	During an inspection of lifting accessories, a defect is found. What THREE actions must be taken?
4	Before guiding a rig into position, where should the attendant be positioned?
5	List THREE things that need to be recorded on completion of a pile.
6	a) What is the purpose of a Method Statement and b) what is required of the attendant?
7	Explain where a rig attendant would get information about pile diameters and depths so that the rig can be set up for the specific task?
8	Give THREE examples of providing support to the piling operation.
9	Why is it important that all piles are logged and recorded on the daily reports, drawings etc.?
10	If the attendant is undertaking a new process they are unfamiliar with, what should they require before work starts?
11	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
12	If guiding the rig past an open trench, what minimum distance should be maintained from the edge of the trench?
13	Those working directly with piling rigs are generally regarded as 'safety-critical' workers. What does this mean?
14	Describe how the rotary auger of a bored rig is cleaned?
15	Name FOUR different types or levels of sanctions that can be applied to rig attendants who do not comply with, or follow legislation and regulations.



No.	Question
16	When assisting a plant operator to position and configure the item of plant, what should the marshaller take into account?
17	During the piling operation, and error or inconsistency is noted in the pile schedule/layout, What is the first course of action to be taken?
18	What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
19	Why should the rig be kept on designated travel routes when travelling to the working area?
20	The operator has been asked to drive the machine onto a transporter/trailer, a) who is responsible for the loading operations? and b) state FOUR actions to be considered by the operator before loading commences.
21	If the rig suffers a hose burst or leaked oil from a component, what action must be taken?
22	Name TWO ways in which an operator can minimise their impact upon the environment whilst carrying out their function.
23	When assisting in loading/unloading piles/cages from a transporter, what checks should be made before securing gear is released?
24	When using radio communication between a marshaller and driver/operator, apart from a common language, what THREE things should be considered when sending messages?
25	What action should be taken if any of the ancillary equipment .e.g. augers etc. was found to be faulty?
26	At the end of the working day, where should tools and equipment used by the attendant be stored?
27	What factors need to be taken into account when an exclusion zone is devised around the rig during the piling process?
28	What type of pile would be best suitable for contaminated ground?
29	What THREE main duties of The Health and Safety at Work Act must employees follow?
30	a) State the purpose of the piling platform certificate and b) when is it required?



No.	Question
31	Explain the need for maintaining an exclusion zone.
32	List THREE hazards that could be encountered when travelling or manoeuvring a rig.
33	If piling has to take place in contaminated ground, list THREE precautions or actions that need to be taken?
34	What must be carried out before lifting accessories are used?
35	If a rig attendant is required to work at height what is the first thing to be taken into account?
36	List TWO methods that could be used to communicate effectively with the rig operator during the piling process?
37	If fitted with an auxiliary winch, name THREE things must be known before a lifting operation to take place?
38	Name THREE ways that anyone involved with the piling operation can contribute in ensuring repeat business with the client or main contractor.
39	Where should the Operator's Manual be kept and why would an attendant need to refer to it?
40	a) Explain what first course of action that must be taken if sight with the rig operator is lost whilst guiding the rig and b) what subsequent action should be taken?
41	If the rig is working in a confined area, what action should be taken with regards to the rear of the rig and any nearby obstruction?
42	When the rig is to work near power lines, a) what needs to be taken in to account, and b) why?
43	If banking other vehicles in and from the working area, list FIVE things to be taken into account.
44	How would the attendant ensure that the auger or pile has been pitched within tolerance at the pile location?
45	How can a qualification or card benefit a piling operative?



No.	Question
46	During the piling operation, what authority does the attendant have on an unauthorised persons or machine entering the zone?
47	What TWO actions would you take if you spot a hazard that you think the rig operator has ignored?
48	What on-going checks should the attendant make to the rig made during the construction of the pile?
49	What is the purpose of a risk assessment?
50	Name FOUR situations that can cause a piling rig to overturn.
51	Give THREE examples of tasks where the operative is working at height, and describe safe ways of accessing each stated task.
52	If marshalling a vehicle in an area having limited light or during hours of darkness/dusk, what would be the first main consideration?
53	If the rig attendant needs to communicate face-to-face with the rig operator, what precautions should be taken?
54	What action should the rig attendant take if the Working Platform is damaged during work?
55	What should be ensured before the rig is manoeuvred across a site?
56	a) What can cause a loss of direct vision with the rig operator and b) what must happen if vision is lost between operator and attendant?
57	If a rig attendant is allocated to a another operator, what need to be taken into account/be discussed before work starts?
58	Explain what precautions the operator of the rig should be taken if a rig has to travel up or down a slope.
59	What is the definition of, or how can a hazard be described?
60	How is information about changes made to the method statement or new hazards found during operations communicated to the team?



No.	Question
1	If pipelines have to be supported by scaffolding, what must be ensured?
2	What effect does a high alkaline material (such as wet concrete have if it comes into contact with the skin, particularly over long periods of exposure?
3	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
4	Name THREE ways that a pump operator can contribute in ensuring repeat business with the client or principal contractor.
5	Where should the User's Manual be kept and why?
6	What is the purpose of a safety grill?
7	If selecting a vehicle to tow a pump, what must be considered before doing so?
8	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
9	How can a qualification or card benefit a pump operator?
10	Why are those who operate pumps generally regarded as 'safety-critical' workers?
11	During the pumping operation, part of the task cannot be carried out as detailed in the method statement. a) What initially must happen to the operation and b) who authorises any changes?
12	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
13	Name THREE places where the pump should NOT be parked after completion of the pumping operation.
14	What checks should be made to the pipeline prior to the pipeline being constructed?
15	What is the definition of, or how can a hazard be described?



No.	Question
16	Name TWO things to consider before leaving un-attending a pump for any length of time.
17	a) What is the purpose of a Method Statement and b) what is required of the operator?
18	What is the function, if fitted, of the mixer paddles?
19	a) Where must waste from the cleaning process be deposited and b) what environmental factors should you consider?
20	When working in a confined area or space, name THREE dangers that can be present.
21	If setting up to pump in a pedestrianised area, state THREE factors that need to be taken into account.
22	If the words STOP NOW are given to the pump operator by radio during the pumping operation, what action must the operator take?
23	a) What is the purpose of stabilisers on the pump and b) what should be considered before use?
24	What is the purpose of the blanking piece?
25	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
26	a) What additional items (over and above standard site wear) of PPE are required when cleaning out pumps and b) what characteristics must the PPE have?
27	What safety checks should be made after the pipeline has been constructed?
28	What is the meaning of this hand signal (being demonstrated by the Tester)?
29	What piece of information would a client need from pump hirer/owner before a hire?
30	If the pump has to be lifted into the required position, name SIX factors to be taken into account prior to the lift taking place.



No.	Question
31	Using the Operator's Manual, state the starting procedure for the pump. Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
32	Apart from the operator, who else may need to use the machine's User's Manual?
33	What THREE main duties of The Health and Safety at Work Act must employees follow?
34	If radios are to be used during a pumping operation, what FIVE actions and checks must be made by the pump operator before use?
35	Using the Operator's Manual, state the tyres' operating pressure. Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
36	a) What happens if the safety grill is lifted and b) what procedures should you follow if the safety interlock fails when the grill is lifted?
37	What is the purpose of pumping primer through the pipeline?
38	Describe at least THREE causes of blockages that may occur within the pipeline.
39	What are the THREE actions or stages that a pump operator undertakes during pre-use inspections?
40	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
41	When setting up to work, what should be taken into account for the delivery vehicles?
42	Before towing the pump into position, name SIX factors to be taken in to account.
43	If the pump is being operated using a remote control unit what TWO things need to be ensured?
44	What checks should be made to the transmitter of a remote-controlled pump before work?
45	If a blockage occurs, what actions must be taken by the operator?



No.	Question
46	Name THREE possible underground hazards that may affect the stability of the pump when in operation.
47	The operator has to use a new type of pump that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
48	What is the purpose of a risk assessment?
49	Before the start for work: a) how should signallers be identified and b) what should be agreed between the pump operator and a signaller?
50	Describe how the pump operator should safely relieve the pressure is a blockage occurs.
51	List SIX typical subject areas that should be covered in a site induction.
52	If checking the oil level using a dipstick, why must gloves be worn?
53	On what basis are pipelines and couplers selected?



No.	Question
1	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or principal contractor.
2	Why are forklift operators generally regarded as 'safety-critical' workers?
3	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
4	a) On hoist rope-equipped lifting equipment, how does the number of lines or falls of rope affect the lifting capacity and b) how is hoist speed affected when the number of lines (or falls of rope) is reduced?
5	Name TWO factors that determine the weight of a load.
6	What THREE main duties of the Health and Safety at Work Act must employees follow?
7	Why must the seat belt be worn, even with the cab door closed?
8	According to regulations (such as Lifting Operations and Lifting Equipment Regulations (LOLER) 1998) name TWO requirements that must be carried out on any lifting operation.
9	Why must the telehandler operator ensure that the boom operating controls are isolated before the slinger attaches the load?
10	What are the THREE actions or stages that a tele-handler operator undertakes during pre-use inspections?
11	What is the purpose of counterweight(s) on the machine?
12	If the operator has to attach their own load, what should they ensure before leaving the cab of the machine?

## **CP** Construction Plant **CS** Competence Scheme

#### **Technical Test Theory**

No.	Question
13	An operator has been asked to transport a load along the public highway from one site to another, for which The Road Traffic Act applies. What needs to be taken into account regarding the law?
14	a) If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab and b) who is responsible for the loading operations?
15	Travelling with a suspended load on uneven ground/rough terrain may be hazardous for what reason?
16	Name FOUR factors to consider and know before picking up a load.
17	Explain the effect that could happen when turning left or right with a suspended load, even gently?
18	List SIX typical subject areas that should be covered in a site induction.
19	a) What is the purpose of a lift plan and b) when would one be required?
20	If a load is being lifted whilst the telehandler is on a slope and facing downhill, what effect could this have on the machine?
21	Telehandlers are working in the same vicinity that encroach the operating radius of a crawler crane. What actions would the lift plan or method statement normally specify?
22	If the hook block of a hoist rope-equipped lifting equipment inadvertently (accidentally) lands, what is a possible consequence?
23	On stabiliser-equipped machines, what must be checked before the stabilisers are lowered?
24	Give FOUR reasons that may cause the tele-handler to tip over sideways.



No.	Question
25	What problems and hazards can soft ground cause to a loaded telescopic handler?
26	What is the purpose of a roll or ROPS frame?
27	As a lifting machine, the tele-handler must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
28	Travelling with extra-long loads should be undertaken with a slinger for what reason?
29	Why should a tele-handler be re-fuelled at the end of the day?
30	In terms of visibility, turning to the right with a raised boom can be more hazardous for what reason?
31	During the lifting operation, part of the task cannot be carried out as detailed in the lift plan. a) What initially must happen to the lifting operation and b) who authorises any changes?
32	a) What is the purpose of a Method Statement and b) what is required of the operator?
33	Before manually changing any attachment, a) Where should the attachment be positioned (in relation to the ground) and b) why?
34	State FOUR checks that should be made to the forks.
35	A machine is equipped with a load chart that provides information relating only to static free-on-wheels duties. In what circumstance can pick-and-carry duties be undertaken?
36	Name THREE possible underground hazards which may affect the stability of the vehicle when in operation.



No.	Question
37	What THREE actions or checks should be made, by the operator before use, to the transmitter of a remote-controlled tele-handler?
38	What is the purpose of a risk assessment?
39	Which parts of the telehandler is the radius (for lifting) measured from?
40	What would be the effect on the telehandler if a tyre on the front axle is larger or smaller in size than the other tyre on the same axle, or where one tyre has less pressure than the other?
41	When working in a confined area or space, name THREE dangers that can be present.
42	Why must the hoist rope of an item of lifting equipment be kept vertical before lifting any loads?
43	When placing onto or lifting a load from a loading out tower: a) why must the tele-handler's handbrake be on and the transmission in neutral and b) what would the consequences be if this was not done?
44	After placing a load, who is responsible for ensuring the load is safe?
45	What should you be cautious of whilst wearing a remote control unit?
46	When picking up a suspended load, what constitutes the total weight that is to be lifted by the machine?
47	Describe ONE physical method of checking that the attachment is fully secured to the coupler prior to work.
48	Name TWO things that happen if the hoist rope is not vertical when lifting a load.



#### **Telescopic Handler 360 slew A77**

No.	Question
49	If the tele-handler is being travelled or working on the public highway, including adjacent pavement and verges, the Road Traffic Act applies. a) What type of licence and which classes should the operator hold and b) what is the minimum age allowed?
50	How can a qualification or card benefit a plant operator?
51	Name SIX possible proximity hazards that may be encountered on site when travelling with a load.
52	What TWO ways can a load swing cause a telehandler to become unstable?
53	An operator has to travel a tele-handler on the public highway, for which the road traffic act applies. List SIX requirements that must be followed.
54	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
55	When using a remote control unit, what action must be taken when removing the unit from the operator's body to undertake or carry out other operations?
56	The safe working load (SWL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
57	a) What would be considered the main danger zone for a slinger/signaller (load handler) when controlling a suspended load during pick-and-carry duties and b) what could be a consequence if the slinger/signaller was within the zone during travel?
58	If facing the telescopic handler whilst using the remote unit what can happen?
59	What is the meaning of this hand signal (being demonstrated by the Tester)?
60	What THREE factors must be taken into account if a load is being lifted onto a platform with a set of lifting chains which are long in length?

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No.	Question
61	Whilst being guided by a slinger/signaller, the operator loses sight of them. What should the operator do?
62	What would happen if the steering mode of 'crab steer' is selected and the steering wheel rotated clockwise whilst travelling?
63	a) What is the minimum distance allowed near open trenches when travelling with a tele-handler and b) explain why?
64	The operator has to use a new type of tele-handler that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
65	Accessories or attachments for suspended loads must only be attached to manufacturer's approved lifting point. Explain THREE possible consequences if the recommendations are not followed.
66	What THREE checks need to be made before any load is to be lowered into a trench or excavation?
67	If the load centre of the load increases beyond that stipulated, what effect does it have on the lifting capacity of the machine?
68	Before travelling with a physically large load, name FIVE factors that must be taken into account by the operator before moving.
69	How is it possible that forklifts can still tip over, even when travelling on gentle gradients, are not overloaded and not being driven at excessive speed?
70	What is the recommended travel speed when travelling with a suspended load?
71	Only two legs of a 4 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted with that sling?
72	List FIVE factors that must be taken into account by the operator if a load is to be travelled across a site.



#### **Telescopic Handler 360 slew A77**

No.	Question
73	What checks need to be taken before a lifting accessory can be used?
74	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
75	What is the definition of, or how can a hazard be described?
76	a) What determines the minimum distances that any part of plant and machinery has to be kept from overhead electricity lines and b) explain why a distance should be kept.
77	Give THREE reasons why it is important that a tele-handler is not leaning sideways before attempting to lift or place a load.
78	Before undertaking any suspended load lifting duties, what TWO factors should the telehandler operator check with their supervisor before work starts?
79	If setting up to lift and move loads in a pedestrianised area, state THREE factors that need to be taken into account.
80	Why should the standard load chart for fork operations not be used for suspended load operations?
81	What particular and specific hazards can affect the stability of the machine when working on old industrial (brownfield) sites?
82	a) What checks should be made to the ground conditions and b) when should the checks be made?
83	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
84	As well as checking the rated capacity of the machine and the lifting accessories for the load, the lifting capacity of what else must be checked?

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No.	Question
85	Before picking up a load, why should the forks be equally spaced or distanced on the carriage?
86	Name FOUR ways that wet weather can affect tele-handler operations.
87	If fitting an approved attachment such as a lifting jib, what TWO ways can the machine's rated lift capacity be affected?
88	If the load inadvertently or accidentally catches the ground whilst travelling, what course of action should be taken?
89	Name TWO duties of the telehandler operator.
90	Travelling in a forward direction with a suspended load which has a large surface area, even though within safe limits, can be hazardous for what THREE reasons?
91	When working in a confined area or space: a) what danger can be present with regards to the counterweight of the machine, b) when should measures be taken and c) what measures should be implemented?
92	Give FOUR reasons that may cause the machine to tip forwards.
93	How can high wind speeds affect tele-handler operations?
94	a) What is meant by the load centre b) which part of the tele-handler is the load centre usually measured from and c) why must it be known for each lift?
95	a) Apart from the operator, who else may need to use the machine's Operator's Manual and b) where should the Operator's Manual be kept and why?
96	a) In what circumstance can the machine's boom be extended for pick-and-carry/travelling duties and b) what must be taken into account if it needs to be extended?



#### **Telescopic Handler 360 slew A77**

No.	Question
97	a) What is the main purpose of the Rated Capacity Indicator (RCI) / Load Moment Indicator (LMI) and b) Who determines it?
98	A change of telehandler/lifting equipment operator is required. What must they be made aware of before continuing?
99	To minimise the risk of a sideways overturn, how should the boom be positioned when travelling with a suspended load?
100	Using the given suspended loads lifting capacity diagrams for a telescopic handler: a) For stabiliser duties, what is the maximum lifting capacity when the carriage is at the second stage of extension and the boom at angle of 10 degrees? b) For stabiliser duties, what is the maximum gradient allowed when lifting downhill on a slope? c) For free-on-wheels duties, what is the maximum gradient allowed when lifting uphill on a slope? d) For pick-and-carry duties, what is the maximum available hook height? e) What is the maximum travel speed when carrying a suspended load? f) What is the maximum gradient allowed when travelling downhill with a suspended load that is facing uphill? g) A load with dimensions of length - 4 metres, width - 4 metres and height - 2.8 metres, and weighing 4 tonnes needs to be travelled for a distance of 20 metres before being placed. Using a set of 4 leg chains where the distance between the top of the load and the hook is 2.8 metres, can the lift be carried out for pick-and-carry duties?
101	Using the lifting capacity diagram for A77: a) what is the maximum lifting capacity at maximum height, b) what is the lifting capacity with the boom angle at 30 degrees at a radius of 13 metres and c) what is the farthest distance available to place a 2 tonnes load at a height of 13metres?

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Vacuum Excavator A78

No.	Question
1	Before commencing any excavation operations, what level of authorisation is required?
2	How can a qualification or card benefit a plant operator?
3	a) What is the minimum distance allowed near open trenches when travelling a mobile vacuum excavator on a site and b) explain why?
4	Name FOUR checks to be made on the condition and security of the suction hose.
5	What TWO factors must be taken into account regarding the size of the exclusion zone?
6	What checks should be made to the remote control unit before work commences?
7	What other description are vacuum excavators commonly known as?
8	What factors determine the shoring requirements of a trench?
9	When using a remote control unit (both pendant and radio operated), what action must be taken when removing the unit from the operator's body to undertake other operations, or when carrying out other operations (such as cleaning the area)?
10	List SIX typical subject areas that should be covered in a site induction.
11	Using the Operator's Manual, what is the decibel rating?
12	Using the Operator's Manual, state the procedure for dealing with blockages.
13	Before leaving the cab or machine for a rest break, after parking and switching off the machine, what final action must be carried out?
14	How can the water content of the material be removed in the container?
15	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.

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Vacuum Excavator A78

No.	Question
16	Name TWO hazards of removing soils and materials (digging) directly using the hose nozzle?
17	How do the use of stabilisers improve stability of the machine?
18	The operator has to fit and use a new type of water or air lance that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
19	When segregating the working area for a small excavation, what factor needs to be taken into account when placing the segregating barriers?
20	What is the purpose of a risk assessment?
21	Why is it good practice for the operator to request to see the site plan before starting work?
22	Before excavating on or near to the highway, what would indicate the type and potential amount of buried services in the vicinity?
23	Give FOUR reasons that may cause the machine to tip over.
24	Name FOUR minimum specific PPE requirements for vacuum excavator operators when carrying out excavation tasks.
25	Name THREE causes for loss of suction.
26	The operator is asked to carry out an excavation on a new site. State FIVE different requirements that must be considered or implemented before work commences.
27	What is the function of the serrations that may be found on the suction hose?
28	What sequence of actions are taken for an open trench once an excavation is completed?
29	On certain types of excavator, what adjustments to the machine can be made for excavating particular ground conditions?
30	If a yellow coloured marker tape is unearthed during excavating, which two types of services could this indicate?

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Vacuum Excavator A78

No.	Question
31	Apart from the operator, who else may need to use the machine's Operator's Manual?
32	Name FOUR pieces of information that should be provided to the driver before the excavation begins.
33	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
34	What checks should be made on reversing cameras/reversing warning devices etc.
35	When forming a trench or excavation a) what are the risks to personal safety and b) what could be the consequences?
36	a) What determines the minimum distances that any part of plant and machinery has to be kept from overhead electricity lines and b) explain why a distance should be kept?
37	When setting up to use an excavator, what should be taken into account regarding a pendant remote control unit?
38	What can be the effect of transporting slurry-type loads?
39	When briefing supporting staff a) what should the operator ensure during briefing and b) what should be undertaken at the end of the briefing?
40	When parking the vacuum excavator at the end of the shift, name THREE places where it should NOT be parked.
41	Name FOUR different types or levels of sanctions that can be applied (by employers and judicial bodies) to plant operators who do not comply with, or follow legislation and regulations.
42	Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
43	What is the meaning of this hand signal (being demonstrated by the Tester)?
44	What should you be cautious of whilst wearing a remote-control unit?
45	When using stabilisers, what TWO factors should be checked before they are deployed?

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Vacuum Excavator A78

No.	Question
46	Before entering a trench for excavation and cleaning purposes, name SIX factors that need to be taken into account.
47	a) What is the purpose of a Method Statement and b) what is required of the operator?
48	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
49	If an unforeseen circumstance occurs during the excavating task, what would be the procedure to follow?
50	What particular and specific hazards can affect the stability of the machine when working on old industrial (Brownfield) sites?
51	In poor ground, what measures must be used to maintain stability?
52	If checking the oil level using a dipstick, why must gloves be worn?
53	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
54	When will a plant and vehicle marshaller be required?
55	What is the function of the separation chamber?
56	What is the meaning of this hand signal (being demonstrated by the tester)?
57	Name THREE factors that can cause blockages of the hose.
58	What is the definition of, or how can a hazard be described?
59	What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
60	What determines what system of ground engaging tool is used?

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Vacuum Excavator A78

No.	Question
61	List THREE methods that may be used to indicate underground services during excavation.
62	During the planning stages of work for powered or semi-powered excavators, what should be taken into account when determining emergency procedures for machine operation?
63	Name FOUR areas where waste material should not be discharged.
64	Before re-joining the public highway after completing work, what checks must be made to any stabilisers?
65	In principle, if a blockage occurs, a) what is first course of action and b) what is the sequence of operations?
66	Where should the excavator's and vehicle's Operator's Manual be kept and why?
67	Give FOUR examples of where The Work at Height Regulations may apply to vacuum excavator operations.
68	Name THREE disadvantages of using a manual ground engaging tool compared to water or air types.
69	Explain why no personnel should work or walk directly beneath a nozzle, whether supported by a boom or hand held.
70	a) Name THREE ways that underground services can be found and b) in what sequence?
71	Name TWO disadvantages of using an air-operated ground tool over a water operated version.
72	Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?
73	If setting up to work in a pedestrianised area, state FIVE factors that need to be taken into account.
74	Explain the procedure that must be followed should anyone other than those directly involved in the operations enter the area.
75	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.

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Vacuum Excavator A78

No.	Question
76	What can cause a fully laden hopper of a vacuum excavator to become more unstable over an unladen one?
77	What THREE main duties of the Health and Safety at Work Act must employees follow?
78	What procedure should be taken if a hydraulic hose bursts?
79	Name THREE disadvantages of using a water ground invasive tool over an air operated version.

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No.	Question
1	What is the difference between a ROPS and FOPS structure?
2	With regards to lifting accessories, irrespective of who supplied the accessories, what THREE factors should be ensured before the accessories are used?
3	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
4	If attaching accessories to a quick-hitch coupler, give TWO reasons why the coupler should be tilted in the downwards position (ram extended)?
5	How can a qualification or card benefit a plant operator?
6	Name FOUR load-bearing structural elements.
7	If the accessory attachment point is not part of the attachment, give TWO reasons why it should be removed.
8	Describe how exposure to asbestos fibres can cause health issues.
9	a) Give ONE advantage and b) TWO disadvantages of using cameras to monitor the work.
10	Explain the purpose of a lift plan.
11	Describe ONE physical method of checking that an attachment is fully secured to the quick-hitch coupler prior to work.
12	If using a high-reach machine, describe FOUR considerations that must be taken into account when setting up for work.
13	What is the definition of, or how can a hazard be described?
14	Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?
15	a) Why should the slewing direction be to the left wherever possible and b) Explain why.

No.	Question
16	Explain a possible danger if the machine is demolishing on sloping ground.
17	What THREE main duties of the Health and Safety at Work Act must employees follow?
18	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences?
19	If a trench has a depth of 2 metres:  a) What is the minimum distance to maintain from the edge of the trench when working and b) explain why?
20	Which parts of the machine is the radius (for lifting) measured from?
21	On a semi-automatic quick-hitch attaching system:  a) What is the purpose of the safety pin  b) What checks MUST be made to the pin before use?
22	If both travel levers (or travel pedal for wheeled machines) are pushed forwards when the track motors (or driving wheels) are in front of the cab, in which direction would the machine move?
23	If a hook is fitted to the machine for lifting purposes, what must be checked before use?
24	What particular and specific hazards can affect the stability of the machine when working on old industrial (brownfield) sites?
25	Give TWO examples of where The Work at Height Regulations may apply to demolition machine operations.
26	When slewing with a load, where should the operator be looking?
27	The machine is to lift a steel beam, that has just been cut, from height using chain slings. What TWO factors need to be taken in to account during the planning stage?
28	What makes up the total (or gross) weight of a load that is to be lifted?
29	Using the Operator's Manual, state the figure for setting track tension.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
30	Apart from the operator, who else may need to use the machine's Operator's Manual?



No.	Question
31	On high-reach machines, what should be considered when positioning the machine for work?
32	Explain the difference between pre-tensioned and post-tensioned members.
33	The operator is asked to demolish a new structure. State FIVE different requirements that must be considered or implemented before work commences.
34	If setting up to demolish in a confined area, name TWO things that should be taken into account before starting.
35	Manufacturers' lifting or object handling capacity charts apply (in all known cases) when the machine is level. What is the effect if a load is lifted or travelled facing downhill on a downhill slope?
36	Why must the seat belt be worn, even with the cab door closed?
37	Before starting work on a new structure, how should the operator familiarise themselves with the work zone?
38	Before manually changing any attachment: a) where should the attachment be positioned (in relation to the ground) and b) why?
39	Larger demolition machines are fitted with a turbo-charged engine.  a) What is the normal procedure before switching off the engine after working and b) what happens if the procedure is not followed?
40	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
41	When an object needs to be lifted on a site, what should be the first consideration of planning?
42	Explain ALL visual checks that must be carried out on all types of quick-hitch attachment connecting systems before use.
43	a) What must be undertaken as the first step when disconnecting a hydraulic line, and b) where can the specific information be found?
44	What is regarded as the danger or hazard zone during a lifting operation?
45	Name FOUR hydraulically operated attachments that may be used on demolition.



No.	Question
46	Who determines the lifting/object handling capacity of the machine?
47	There are five designated areas within a demolition site. Name THREE of those areas.
48	Why should linkage pins be checked on a regular basis?
49	According to legislation, when are check valves and a rated capacity or load moment indicator required?
50	State the purpose of the check valve(s) located on the boom cylinder rams.
51	What is the purpose of a risk assessment?
52	Why should a machine be re-fuelled at the end of the day?
53	If the structure being demolished has a basement, name two precautions to be taken to ensure the integrity of the floor slab.
54	In what situation does a hard hat NOT need to be worn when operating a demolition machine?
55	What is the main purpose of the Rated Capacity Indicator (RCI) or Load Moment Indicator (LMI)?
56	If loading a vehicle with material, in what circumstances can the truck/wagon driver remain in the cab?
57	What actions should be taken to a partially demolished structure at the end of a working day?
58	Why should long loads be lifted using a swivelling type lifting accessory?
59	The operator must be aware at all times of the operation of the attachment, and of the progress of the demolition. Give THREE examples on how they would achieve this.
60	In demolition operations how is silica dust created or formed?



No.	Question
61	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
62	What effect can a swinging load have on the machine?
63	What are the requirements for creating a raised working platform?
64	a) How does silica dust harm the body b) What symptoms can result from exposure?
65	List SIX typical subject areas that should be covered in a site induction.
66	Chrysotile or white asbestos is known to be 'hydrophilic' or easily mixed with water. Therefore, what is the best control measure against fibres spreading during demolition operations?
67	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
68	When removing and handling asbestos cement sheets, what is the minimum PPE and RPE that should be worn?
69	Where should the Operator's Manual be kept and why?
70	What could cause the hydraulic system to overheat?
71	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
72	When working in a confined area or space: a) what danger can be present with regards to the counterweight of the machine, b) when should measures be taken and c) what measures should be implemented?
73	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
74	Give FOUR reasons that may cause the machine to tip over – forwards and/or sideways.
75	The operator has to fit and use a new attachment using a quick-hitch coupler that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?

No.	Question
76	On many demolition machines, the slew is restricted. a) What is the normal position for working? b) Explain why the slew restricted.
77	When MUST a banksman/signaller be used before moving the machine?
78	If the machine's rated capacity/object handling capacity chart is not available for reference, what other method can be used to determine the machine's lifting capacity?
79	If setting up to work close to a pedestrianised area, state THREE factors that need to be taken into account.
80	On tracked machines: a) what differs between lifting over the side compared to over the front or the rear of the machine? b) Explain why.
81	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
82	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
83	Why should the jaws of a shear be kept downwards if working at height?
84	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
85	a) What is the purpose of a Method Statement and b) what is required of the operator?
86	When disconnecting the hydraulic hoses to change an attachment, what method should be used to ensure they are not mixed up when reconnected?
87	The safe working load (SWL) or working load limit (WLL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
88	If the load inadvertently or accidentally lands, what course of action should be taken?
89	If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?
90	If checking the oil level using a dipstick, why must gloves be worn?



No.	Question
91	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
92	If the machine is crossing the public highway, the Road Traffic Act applies. a) What type of licence and which classes should the operator hold b) What is the minimum age allowed?
93	What needs to be inspected on a quick-hitch coupler if attaching lifting accessories for the lifting of suspended loads?
94	Why must the controls be isolated before each load is attached or detached by the slinger?
95	If travelling with a load, name FIVE factors that must be taken into account by the operator before moving.
96	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
97	Using the lifting capacity diagram for category A59:  a) if the machine is equipped with a 2.5 m long dipper, what is the maximum lifting capacity in tonnes at a 6 m radius/reach over the sides of the track with the load at 3 m height b) in principle, if a longer dipper is fitted, what effect does that have on the lifting capacity (assuming same size attachment and machine configuration)?
98	Why should different materials be segregated during demolishing?
99	Why are demolition plant operators generally regarded as 'safety-critical' workers?
100	a) How many types of asbestos may be commonly found in the work place? b) Name the colours.
101	If previously undetected asbestos is exposed when taking down a section of a building, what sequence of actions must be taken?
102	Accessories must only be attached to manufacturers' approved lifting points.  Explain THREE possible consequences if the recommendations are not followed.
103	What is the purpose of the counterweight of the machine?

**Demolition Plant - Lifting D96 (90)** 

No.	Question
1	When slewing with a load, where should the operator be looking?
2	On tracked machines:  a) What differs between lifting over the side compared to over the front or the rear of the machine?  b) Explain why.
3	Accessories must only be attached to manufacturers' approved lifting points.  Explain THREE possible consequences if the recommendations are not followed.
4	Why must the controls be isolated before each load is attached or detached by the slinger?
5	If attaching accessories to a quick-hitch coupler, give TWO reasons why the coupler should be tilted in the downwards position (ram extended)?
6	With regards to lifting accessories, irrespective of who supplied the accessories, what THREE factors should be ensured before the accessories are used?
7	What is regarded as the danger or hazard zone during a lifting operation?
8	Who determines the lifting/object handling capacity of the machine?
9	The machine is to lift a steel beam, that has just been cut, from height using chain slings. What TWO factors need to be taken in to account during the planning stage?
10	What makes up the total (or gross) weight of a load that is to be lifted?
11	The safe working load (SWL) or working load limit (WLL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
12	What is the main purpose of the Rated Capacity Indicator (RCI) or Load Moment Indicator (LMI)?
13	Which parts of the machine is the radius (for lifting) measured from?
14	If a hook is fitted to the machine for lifting purposes, what must be checked before use?
15	If the machine's rated capacity/object handling capacity chart is not available for reference, what other method can be used to determine the machine's lifting capacity?



### **Technical Test Theory**Demolition Plant - Lifting D96 (90)

No.	Question
16	Manufacturers' lifting or object handling capacity charts apply (in all known cases) when the machine is level. What is the effect if a load is lifted or travelled facing downhill on a downhill slope?
17	When an object needs to be lifted on a site, what should be the first consideration of planning?
18	If travelling with a load, name FIVE factors that must be taken into account by the operator before moving.
19	What effect can a swinging load have on the machine?
20	If the load inadvertently or accidentally lands, what course of action should be taken?
21	Using the lifting capacity diagram for category A59:  a) if the machine is equipped with a 2.5 m long dipper, what is the maximum lifting capacity in tonnes at a 6 m radius/reach over the sides of the track with the load at 3 m height b) in principle, if a longer dipper is fitted, what effect does that have on the lifting capacity (assuming same size attachment and machine configuration)?
22	Why should long loads be lifted using a swivelling type lifting accessory?
23	If the accessory attachment point is not part of the attachment, give TWO reasons why it should be removed.
24	According to legislation, when are check valves and a rated capacity or load moment indicator required?
25	What needs to be inspected on a quick-hitch coupler if attaching lifting accessories for the lifting of suspended loads?
26	Explain the purpose of a lift plan.

No.	Question
1	If the machine is to work a considerable distance away from the power supply, what precautions need to be taken with regards to the cable?
2	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
3	If fitted, state the purpose of the check valve(s) located on the boom cylinder ram.
4	a) Name TWO methods of controlling dust during demolition and b) what precaution needs to be taken?
5	Give FOUR reasons that may cause the machine to tip over – forwards and/or sideways.
6	What is considered as the safe working position and configuration for the machine?
7	What is the purpose of counterweighting the machine?
8	Where should the Operator's Manual be kept and why?
9	Name at least THREE electrical items that should be ensured and checked before turning on and/or operating the machine.
	If a trench has a depth of 1 metre: a) what is the minimum distance to maintain from the edge of the trench when travelling and b) explain why?
11	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
12	Using the Operator's Manual, state the quoted operating voltage and amperage.
13	The operator is manoeuvring the machine onto a transporter/trailer, state FIVE actions to be considered before loading commences.
14	Why should linkage pins be checked on a regular basis?
15	The operator has to fit and use a new attachment using a quick-hitch coupler that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?

No.	Question
16	When working in a confined area or space:  a) what danger can be present with regards to the counterweight of the machine, b) when should measures be taken and c) what measures must be implemented?
17	When the machine is loaded onto a transporter/trailer, what THREE checks must be carried out before transporting?
18	Explain the difference between pre-tensioned and post-tensioned members.
19	What is the purpose of a risk assessment?
20	a) How many types of asbestos may be commonly found in the work place? b) Name the colours.
21	Explain a possible danger if the machine is demolishing on sloping ground.
22	What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
23	What would provide an indication if the phase has been wired in the incorrect sequence?
24	Name at least FIVE dangers that could be encountered in a structure being demolishing.
25	What actions should be taken to a partially demolished structure at the end of a working day?
26	When removing and handling asbestos cement sheets, what is the minimum PPE and RPE that should be worn?
27	What additional requirements should be employed to prevent the machine from moving if working near to an edge?
28	Using the Operator's Manual, state the figure that determines what the track tension should be.
29	Describe ONE physical method of checking that an attachment is fully secured to the quick-hitch coupler prior to work.
30	a) What must be undertaken as the first step when disconnecting a hydraulic line, and b) where can the specific information be found?

No.	Question
31	Before manually changing any attachment: a) where should the attachment be positioned (in relation to the ground) and b) why?
32	When disconnecting the hydraulic hoses to change an attachment, what method should be used to ensure they are not mixed up when reconnected?
33	On types fitted with stabilisers, what additional issue should be considered when positioning the machine for work?
34	On some pedestrian-operated types, the slew is restricted. a) What is the normal position for working and b) why is the slew restricted?
35	The operator is asked to work on a new project. State FIVE different requirements that must be considered or implemented before work commences.
36	If two or more radio-remote controlled machines e.g. a crane or robotic crusher/breaker are on the site and both in operation, state TWO checks that should be undertaken that ensures that transmitting radio signals are not on the same frequency?
37	Name FOUR different types or levels of sanctions that can be applied (by employers and judicial bodies) to plant operators who do not comply with, or follow legislation and regulations.
38	Before starting work on a new project, how should the operator familiarise themselves with the work zone?
39	a) Who determines the point loadings exerted by the stabilisers of the machine and b) why is this information needed?
40	If topping up the hydraulic oil, why must gloves be worn?
41	What are the requirements for creating a raised working platform?
42	If setting up to demolish in a confined area, name THREE things that should be taken into account before starting.
43	When establishing, or when seeking a suitable power supply, what needs to be checked?
44	a) What is the purpose of a Method Statement and b) what is required of the operator?
45	When working the machine at height, describe FOUR considerations that must be taken into account when setting up for work.

No.	Question
46	<ul><li>a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and</li><li>b) explain why a distance should be kept.</li></ul>
47	If setting up to work close to a pedestrianised area, state THREE factors that need to be taken into account.
48	List SIX typical subject areas that should be covered in a site induction.
49	Name THREE hydraulically operated attachments that may be used on pedestrian-operated demolition plant.
50	Demolition plant operators are generally regarded as 'safety-critical' workers. What does this mean?
51	How can a qualification or card benefit a plant operator?
52	What could cause the hydraulic system to overheat?
53	a) When should post-operational checks need to be carried out and b) what two actions should be taken if defects are found?
54	What is the definition of, or how can a hazard be described?
	a) How does silica dust harm the body b) What symptoms can result from exposure?
56	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
57	In demolition operations how is silica dust created or formed?
58	If the structure being demolished has a basement, name two precautions to be taken to ensure the integrity of the floor slab.
59	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
60	Apart from the operator, who else may need to use the machine's Operator's Manual?

No.	Question
61	Who and what determines the required length of cable between the supply socket and the machine?
62	When tracking the machine to the work area, what should be taken into account during travel?
63	A section of the structure is to be retained, what operation should have been carried out prior to commencing demolition of the remaining part?
64	Why must an unqualified person not open an electric cabinet?
65	Give THREE examples of safety precautions that must be taken when lifting the machine into the work position.
66	What does this symbol (being shown by the tester) indicate?
67	Chrysotile or white asbestos is known to be 'hydrophilic' or easily mixed with water. Therefore, what is the best control measure against fibres spreading during demolition operations?
68	Name FOUR load-bearing structural elements.
69	What THREE main duties of the Health and Safety at Work Act must employees follow?
70	Explain ALL visual checks that must be carried out on all types of quick-hitch attachment connecting systems before use.
71	Why should demolition arising's be regularly removed during work?
72	Name THREE ways that a demolition machine operator can contribute in ensuring repeat business with the client or main contractor.
73	Why should different materials be segregated during demolishing?
74	If operating a machine on a floor with an open edge, why should a radio-operated remote control be used and not an umbilical type?

No.	Question
1	Before manually changing any bucket: a) Where should the bucket be positioned (in relation to the ground) before unlatching and b) explain why?
2	When working the machine at height, describe FOUR considerations that must be taken into account when setting up for work.
3	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
4	On a semi-automatic quick-hitch attaching system:  a) What is the purpose of the safety pin  b) What checks MUST be made to the pin before use?
5	When working in a confined area or space: a) what danger can be present with regards to the rear of the machine, b) what is the recommended minimum distance and c) what measures must be implemented if the gap is less?
6	During work, the engine starts to overheat.  Explain the danger if someone tries to remove the radiator or expansion tank cap.
7	Describe ONE physical method of checking that the attachment is fully secured to the coupler prior to work.
8	If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?
9	The operator has to fit and use a new attachment using a quick-hitch coupler that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
10	a) What is the purpose of a Method Statement and b) what is required of the operator?
11	Give FOUR reasons that may cause the skid steer to tip over sideways.
12	Why should a skid steer be re-fuelled at the end of the day?
13	What are the requirements for creating a raised working platform?
14	What problems and hazards can soft ground cause to a loaded skid steer?
15	Why should a skid steer not be travelled if there is no attachment/bucket fitted to the loader arms?

No.	Question
16	The operator has been asked to drive the machine onto a transporter/trailer.  a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences?
17	If the structure being demolished is a multi-floor structure, name two precautions to be taken to ensure the integrity of the floor slab.
18	How are skid steer bucket sizes calculated?
19	When constructing a ramp, name THREE considerations to take into account.
20	How or what counterweights the machine from the effects of a loaded bucket?
21	On non self-levelling buckets, what problem can occur if a fully loaded bucket is raised to full height?
22	If setting up to demolish in a confined area, name THREE things that should be taken into account before starting.
23	When working in a confined area or space, name THREE hazards that can occur.
24	What is the difference between a ROPS and FOPS structure?
25	If access or egress to/from the cab has to be via the front of the machine, state two precautions to be observed before exiting the machine.
26	Why should demolition arising's be regularly removed during work?
27	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
28	Name FOUR load-bearing structural elements.
29	a) What is the minimum distance allowed near open trenches when travelling with a loaded skid steer and b) explain why?
30	Why should different materials be segregated during demolishing?

No.	Question
31	Name at least FIVE dangers that could be encountered in a structure being demolishing.
32	If previously undetected asbestos is exposed when taking down a section of a building, what sequence of actions must be taken?
33	If setting up to work near to a pedestrianised area, state THREE factors that need to be taken into account.
34	Name THREE ways that a demolition plant operator can contribute in ensuring repeat business with the client or main contractor.
35	The operator is asked to tip material into a chute or drop shaft. State FIVE different requirements that must be considered or implemented before tipping commences.
36	When travelling on wet dust, what effect does this have on the skid steer?
37	Chrysotile or white asbestos is known to be 'hydrophilic' or easily mixed with water. Therefore, what is the best control measure against fibres spreading during demolition operations?
38	Name FOUR different types or levels of sanctions that can be applied (by employers and judicial bodies) to plant operators who do not comply with, or follow legislation and regulations.
39	Describe how exposure to asbestos fibres can cause health issues.
40	a) Name THREE purposes of the raised lugs on tyres and b) what can happen to a skid steer if the lugs are severely worn?
41	a) How many types of asbestos may be commonly found in the work place? b) Name the colours.
42	Demolition plant operators are generally regarded as 'safety-critical' workers. What does this mean?
43	If checking the oil level using a dipstick, why must gloves be worn?
44	Give TWO reasons why the skid steer operator should have an understanding of the type of material being loaded.
45	Using the Operator's Manual, state the cold-starting procedure for the machine.  Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.

No.	Question
46	What actions should be taken to a partially demolished structure at the end of a working day?
47	What THREE main duties of The Health and Safety at Work Act must employees follow?
48	Apart from the operator, who else may need to use the machine's Operator's Manual?
49	Where should the Operator's Manual be kept and why?
50	a) Name TWO methods of controlling dust during demolition and b) what precaution needs to be taken?
51	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
52	What is regarded as the most productive position for the receptacle to be in when being loaded by a skid steer working from a stockpile?
53	What is the purpose of a risk assessment?
54	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
55	Why must the seat belt be worn, even within the confines of the cab?
56	What is the definition of, or how can a hazard be described?
57	a) What must be undertaken as the first step when disconnecting a hydraulic line, and b) where can the specific information be found?
58	What may happen if the load is tipped downhill on a slope and why?
59	Name THREE attachments that are available for a skid steer used within the demolition sector.
60	Describe briefly how a (wheeled) skid steer 'steers' or changes direction.

No.	Question
61	How can a qualification or card benefit a plant operator?
62	On pneumatic tyre-equipped machines, what is a possible consequence of using a tyre with a deep cut in the sidewall?
63	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
64	a) How does silica dust harm the body b) What symptoms can result from exposure?
65	There are five areas within a demolition site. Name THREE of those areas.
66	Using the Operator's Manual, state the figure for the torque setting for the wheel securing nuts/bolts.
67	Before starting work on a new project, how should the operator familiarise themselves with the work zone?
68	How can a skid steer turn around within its own area?
69	When removing and handling asbestos cement sheets, what is the minimum PPE and RPE that should be worn?
70	Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.
71	The operator is asked to work on a new project. State FIVE different requirements that must be considered or implemented before work commences.
72	List SIX typical subject areas that should be covered in a site induction.
73	Name THREE conditions that mirrors on the machine must be in.
74	State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
75	What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?

No.	Question
/h	What additional requirements should be employed at height or on multi-floor buildings to prevent the machine from moving if working near to an edge?
77	In demolition operations how is silica dust created or formed?
78	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.