

Technical Test – Questions Contents

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Loader Compressor

A41

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
	A
	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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.
	A
	8. Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a loader compressor?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
	A
Preparing for work	13. How can a qualification or card benefit a plant operator?
	A
	14. Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	15. Where should the machine's Operator's Manual be kept and why?
	A
	16. If the operator has to refill the fuel tank, state TWO precautions to ensure cleanliness of the system.
A	
Preparing for work	17. What is the purpose of a roll or ROPS frame?
	A

continued...

Preparing for work continued	For questions 18 and 19 the Operator’s Manual for the machine being used for the test MUST be available for reference by the candidate
	18. Using the Operator’s Manual, state the figure for the tyres’ operating pressure.
	A
	19. Using the Operator’s Manual, state the cold-starting procedure for the machine.
	A
	20. What is a possible consequence of using a tyre with a deep cut in the sidewall?
	A
	21. If checking the oil level using a dipstick, why must gloves be worn?
	A
	22. How is a compressor output calculated?
	A
	23. What is the typical working pressure of an air operated breaker?
	A
	24. Apart from the operator, who else may need to use the machine’s Operator’s Manual?
A	
25. When air is compressed, what fluid is produced?	
A	
26. What is the purpose of the compressor’s pressure relieve valve?	
A	
27. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
A	

Travelling and manoeuvring	28. An operator has to travel the machine on the public highway. List SIX requirements that must be followed.
	A
	29. 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?
	A
	30. Name THREE conditions that mirrors must be in, on the machine.
	A
	31. Why must the seat belt be worn, even with the cab door closed?
	A
	32. What problems and hazards can soft ground cause to a loaded loader compressor?
A	
Setting up for work	33. Give FOUR reasons that may cause the loader compressor to tip over sideways.
	A
	34. Whenever possible, who should decide the positioning of a vehicle to be loaded?
A	
Setting up for work	35. Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.
	A

Setting up for work continued	36. 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?
	A
	37. Why should air hosing length be kept to a minimum?
	A
	38. Give THREE possible reasons why loader compressors should not stray off the designated haul routes.
	A
	39. Describe ONE physical method of checking that the attachment is fully secured to the coupler prior to work.
	A
	40. a) What is meant by 'white finger' and b) name TWO methods of reducing the effect?
	A
	41. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account?
	A
	42. If using a compressed air tool to break up a concrete type surface, list FIVE items of PPE that must be worn.
	A
43. What is regarded as the most productive position for a vehicle to be loaded to be in when being loaded from a stockpile?	
A	
44. Before manually changing any bucket: a) where should the bucket be positioned (in relation to the ground) before removing the final pin and b) why?	
A	

continued...

Setting up for work continued	45. Give TWO reasons why the loader compressor operator should have an understanding of the type of material being loaded.
	A
Working tasks	46. The operator is asked to tip material into a trench. State FIVE different requirements that must be considered or implemented before tipping commences.
	A
	47. Who should determine the maximum load that should be placed into the body of a vehicle being loaded?
	A
	48. If a load has to be tipped on a slope, what may happen if the load is tipped downhill and why?
	A
	49. When working in a confined area or space, name THREE hazards that can occur.
	A
	50. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when tipping loads and b) explain why a distance should be kept.
	A
Completing work	51. State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
	A
Completing work	52. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A

Shutdown	53. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	54. 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.
	A
	55. 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?
	A
	56. Why should a loader compressor be re-fuelled at the end of the day?
	A

Crusher

A42

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
	A
	5. What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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.
	A
	8. Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a crusher?
	A
	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?
	A
	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations 1995 may apply to crusher operations.
	A
Preparing for work	14. How can a qualification or card benefit a plant operator?
	A
	15. Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the crusher’s Operator’s Manual be kept and why?
A	
	17. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
	A

continued...

Preparing for work continued	For questions 18 and 19 the Operator’s Manual for the machine being used for the test MUST be available for reference by the candidate
	18. Using the Operator’s Manual, state the procedure for adjusting conveyor belt tension.
	A
	19. Using the Operator’s Manual, state the cold-starting procedure for the machine.
	A
	20. If checking the oil level using a dipstick, why must gloves be worn?
	A
	21. Apart from the operator, who else may need to use the machine’s Operator’s Manual?
	A
	22. What is the purpose of the sizing bars on the crusher feed?
	A
	23. Name a) THREE differences between ‘cone’ and ‘jaw’ type crushers and b) ONE suitable application for each.
	A
24. Name THREE requirements of the Noise at Work Act 1994 that apply to crusher operations.	
A	
25. Name FIVE items of specific PPE applicable to crusher operations.	
A	
26. What are the THREE actions or stages that a crusher operator undertakes during pre-use inspections?	
A	

continued...

Preparing for work continued	27. Name the FOUR key causes of accidents that occur during crushing operations.
	A
	28. When would a harness be used?
	A
	29. a) What is the purpose of a magnetic separator and b) where would it be located?
	A
	30. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	31. For mobile crushers, when MUST a banksman/signaller be used before moving a mobile crusher?
	A
	32. What problems and hazards can soft ground cause when travelling a mobile unit across a site?
	A
	33. a) What is the minimum distance allowed near open trenches when travelling with a mobile crusher and b) explain why.
A	
Setting up for work	34. Give THREE reasons that may cause a mobile crusher to tip over sideways during travel.
	A
	35. Give TWO reasons why the operator should have an understanding of the type of material being loaded for crushing.
A	
	36. Explain SIX requirements to be taken into account when positioning a crusher prior to work.
	A

continued...

Setting up for work continued	37. Describe ONE method of how to adjust a cone type crusher to produce the desired aggregate size.
	A
	38. a) Which part of the crusher applies loading or pressure to the ground and b) name ONE way that pressure can be reduced.
	A
	39. As far as is reasonably practical, where should crushing operations be kept clear of?
	A
	40. What are the requirements for the ramps that are to be used by loading shovels loading the crusher?
	A
	41. What are the requirements for the standing for loading excavators?
A	
Working tasks	42. If setting up to work near a pedestrianised area, state THREE factors that need to be taken into account.
	A
	43. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when setting up the machine and b) explain why a distance should be kept.
	A
	44. 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 forming stockpiles and b) explain why.
	A
	45. What FOUR steps should initially be taken should a crusher be blocked before remedial work starts?
A	
Working tasks	46. Why should the engine speed be set to the manufacturer’s recommendations on magnet equipped machines?
	A

continued...

Working tasks continued	47. Name FOUR possible causes for blockages in crushers.
	A
	48. Why is it recommended to leave a layer of material in the feed hopper during loading?
	A
	49. A previous, traditional method of clearing blockages was the use of a wedge or mouse. Explain why this method must not be used.
	A
	50. 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?
	A
	51. When using water suppression, where should the water be applied?
	A
	52. Apart from water, name THREE other methods that can be used to minimise dust.
	A
	53. Name TWO things that can cause 'bridging'.
	A
	54. Name FIVE possible dangers to health if operating the crusher from the platform.
	A
55. During an unblocking activity, even though the crusher may be switched off: a) what else must be done and b) why?	
A	
56. When is it permitted to enter the crushing chamber area?	
A	

continued...

Working tasks continued	57. What TWO problems can wet weather cause?
	A
	58. If a crusher has appeared to stall, what are the THREE initial steps to take before remedial work starts?
Working tasks continued	A
	59. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
Completing work	60. What checks should be made to stockpiled materials at the end of a working day?
	A
	61. Before leaving the machine for a rest break, after switching off the machine, what final action must be carried out?
Completing work	A
	62. If parking a mobile unit away from the working area, name THREE places where the machine should NOT be parked.
	A
Shutdown	63. 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.
	A
	64. Why should a crusher be re-fuelled at the end of the day?
Shutdown	A

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
	A
	5. What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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.
	A
	8. Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a screener?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations may apply to screener operations.
	A
Preparing for work	14. How can a qualification or card benefit a plant operator?
	A
	15. Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the screener's Operator's Manual be kept and why?
	A
	17. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
A	

continued...

Preparing for work continued	For questions 18 and 19 the Operator’s Manual for the machine being used for the test MUST be available for reference by the candidate
	18. Using the Operator’s Manual, state the procedure for adjusting conveyor belt tension.
	A
	19. Using the Operator’s Manual, state the cold-starting procedure for the machine.
	A
	20. If checking the oil level using a dipstick, why must gloves be worn?
	A
	21. Apart from the operator, who else may need to use the machine’s Operator’s Manual?
	A
	22. What is the purpose of the sizing bars on the hopper feed?
	A
	23. How does a trommel type screener segregate material?
	A
	24. Name THREE requirements of the Noise at Work Act 1994 that apply to screener operations.
A	
25. Name FIVE items of specific PPE applicable to screener operations.	
A	
26. What are the THREE actions or stages that a screener operator undertakes during pre-use inspections?	
A	
27. Name the FOUR key causes of accidents that could occur during screening operations.	
A	

Preparing for work continued	28. When would a harness be used?
	A
	29. Name THREE types of conveyor that may be used on a screener.
	A
	30. a) Where is the spreader located and b) what is its purpose?
	A
	31. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	32. For mobile screeners, when MUST a banksman/signaller be used before moving a screener?
	A
Setting up for work	33. What problems and hazards can soft ground cause when travelling a mobile unit across a site?
	A
	34. a) What is the minimum distance allowed near open trenches when travelling with a mobile screener and b) explain why.
	A
	35. Give THREE reasons that may cause a mobile screener to tip over sideways during travel.
	A
	36. Give TWO reasons why the operator should have an understanding of the type of material being loaded for screening.
A	
Setting up for work	37. Explain SIX requirements to be taken into account when positioning a screener prior to work.
	A

continued...

Setting up for work continued	38. How should the screener be set up to meet the production output specification?
	A
	39. a) Which part of the screener applies loading or pressure to the ground and b) name ONE ways that pressure can be reduced.
	A
	40. As far as is reasonably practical, where should screening operations be kept clear of?
	A
	41. What are the requirements for the ramps that are to be used by loading shovels loading the screener?
	A
	42. What are the requirements for the standing for loading excavators?
	A
Working tasks	43. If setting up to work near a pedestrianised area, state THREE factors that need to be taken into account
	A
	44. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when setting up the machine and b) explain why a distance should be kept.
	A
	45. 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 forming stockpiles and b) explain why.
A	
Working tasks	46. What FIVE steps should be initially taken should a screener be blocked before remedial work starts?
	A
	47. Give THREE possible causes of screen box overload.
A	

continued...

Working tasks continued	48. What is the effect on the screening operation if the screen box is raised?
	A
	49. a) What is meant by roll back and b) how can it be prevented?
	A
	50. 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?
	A
	51. If fitted, when using water suppression, where should the water be applied?
	A
	52. Apart from water, name THREE other methods that can be used to minimise dust.
	A
	53. Why should discharge stockpiles not be allowed to reach conveyor height?
	A
	54. During an unblocking activity, even though the screener may be switched off: a) what else must be done and b) why?
	A
	55. When is it permitted to enter the screening chamber area?
	A
56. What TWO problems can wet weather cause?	
A	
57. What is the meaning of this hand signal (being demonstrated by the Tester)?	
A	

Completing work	58. What checks should be made to stockpiled materials at the end of the working day?
	A
Completing work	59. Before leaving the machine for a rest break, after switching off the machine, what final action must be carried out?
	A
Shutdown	60. If parking a mobile unit away from the working area, name THREE places where the machine should NOT be parked.
	A
	61. 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.
	A
Shutdown	62. Why should a screener be re-fuelled at the end of the day?
	A

Concrete Pump

A44

Trailer Mounted

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
	A
	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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?
	A
	8. Concrete pump operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. If required, in what situation does a hard hat NOT need to be worn when operating a concrete pump?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
Preparing for work	13. How can a qualification or card benefit a concrete pump operator?
	A
	14. Name THREE ways that a concrete pump operator can contribute in ensuring repeat business with the client or main contractor.
	A
	15. Where should the User's Manual be kept and why?
	A
	16. What are the THREE actions or stages that a concrete pump operator undertakes during pre-use inspections?
	A
	For questions 17 and 18 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	17. Using the Operator's Manual, state the tyres' operating pressure.
	A
18. Using the Operator's Manual, state the cold starting procedure for the pump.	
A	
19. If checking the oil level using a dipstick, why must gloves be worn?	
A	

continued...

Preparing for work continued	20. Apart from the operator, who else may need to use the machine's User's Manual?
	A
	21. What is the purpose of stabilisers on the concrete pump?
	A
	22. What is the purpose of the blanking piece?
	A
	23. What are the main component parts of a concrete mix?
	A
	24. What is the difference between: a) a placement hose and b) a delivery hose?
	A
	25. What piece of information would a client need from pump hirer/owner before a hire?
	A
	26. What is the function, if fitted, of the mixer paddles?
	A
27. On a piston type pump, what is the purpose of the water bow?	
A	
28. Why must the thickness of steel pipelines be checked on a regular basis?	
A	
29. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
A	
Setting up for work	30. a) Which part of the concrete pump applies loading or pressure to the ground and b) how can that pressure be reduced?
	A
	31. If setting up to pump concrete in a pedestrianised area, state THREE factors that need to be taken into account.
A	

continued...

Setting up for work continued	32. What is the purpose of pumping grout through the pipeline?
	A
	33. When setting up to work, what should be taken into account for the mixer vehicles?
	A
	34. If pipelines have to be connected to scaffolding, what TWO items must be ensured?
	A
	35. On what basis are pipelines and couplers selected?
	A.
	36. Name THREE possible underground hazards that may affect the stability of the trailer when in operation.
	A
	37. 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.
	A
	38. What checks should be made to the couplers?
	A
39. What checks should be made to the transmitter of a remote-controlled pump before work?	
A	
40. Before the start for work: a) how should signallers be identified and b) what should be agreed between the pump operator and a signaller?	
A	
41. Before towing a trailer mounted pump into position, name SIX factors to be taken into account.	
A	

continued...

Setting up for work continued	42. What can occur if the placement hose is longer than specified?
	A
Working tasks	43. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden pylons when setting up the machine and b) explain why a distance should be kept.
	A
	44. If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the concrete pump operator before use?
	A
	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?
	A
	46. Describe at least THREE causes of blockages that may occur within the pipeline.
	A
	47. During pumping, if the operator (using a remote control) needs to leave the pump, what TWO things need to be ensured?
	A
48. When working in a confined area or space, name THREE dangers that can be present.	
A	
49. a) What is considered as the danger zone around the placement hose and b) what is regarded as the safe minimum?	
A a	
50. If the words STOP NOW are given to the concrete pump operator by radio during the lift, what action must the operator take?	
A	

continued...

Working tasks continued	51. If a blockage occurs, what actions must be taken by the operator?
	A
Working tasks continued	52. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
Completing work	53. a) What additional items (over and above standard site wear) of PPE are required when cleaning out concrete pumps and b) explain why?
	A
Completing work	54. Before leaving the pump for a rest break, after switching off the pump, what final action must be carried out?
	A
Shutdown	55. Name THREE places where the trailer should NOT be parked after completion of the pumping operation.
	A
	56. When is it acceptable to use compressed air to clean out pipelines?
	A
	57. Before cleaning a pipeline with compressed air, what must be removed from the line itself?
	A
	58. What is the maximum allowable air pressure to clean out the pipes?
A	
Shutdown	59. Where must waste from the cleaning process be deposited?
	A

Piling Rig

Driven below 15 tonnes

A45

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
	A
	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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?
	A
	8. Rig operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a piling rig?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations may apply to piling rig operations.
A	
14. How can a qualification or card benefit a rig operator?	
A	
15. Name THREE ways that a rig operator can contribute in ensuring repeat business with the client or main contractor.	
A	
Preparing for work	16. Where should the Operator’s Manual be kept and why?
	A
	17. What is the purpose of a roll or ROPS frame?
A	
18. What are the THREE actions or stages that a rig operator undertakes during pre-use inspections?	
A	

continued...

Preparing for work continued	For questions 19 and 20 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	19. Using the Operator's Manual, state the figure for setting the track tension.
	A
	20. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	21. A piling rig has been delivered to site, assembled and configured for work. What must be carried out before piling starts and by whom?
	A
	22. If checking the oil level using a dipstick, why must gloves be worn?
	A
	23. List FIVE checks that should be made to the tracks and running gear.
	A
	24. Name THREE different types of driven hammers.
	A
	25. Where would you find the dolly on a percussive driven hammer?
	A
26. Name THREE different types of driven pile.	
A	
27. What is the purpose of a cofferdam?	
A	
28. Apart from the operator, who else may need to use the machine's Operator's Manual?	
A	
29. What is the purpose of counterweight(s) on the rig?	
A	
30. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
A	

Travelling and manoeuvring	31. If both travel levers are pushed forwards when the track motors are in front of the cab, in which direction would the machine move?
	A
	32. If the rig has to cross 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?
	A
	33. a) What is the minimum distance allowed near open trenches when travelling the rig and b) explain why.
	A
	34. When MUST a banksman or signaller be used before moving a rig?
	A
35. Why must the seat belt be worn when travelling, even with the cab door closed?	
A	
Setting up for work	36. a) Which part of the rig applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
	A
	37. What checks and procedures need to be made before a 'permit to dig' can be issued?
	A
	38. Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
	A
39. 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?	
A	

Setting up for work continued	40. If setting up to pile near a pedestrianised area, state THREE factors that need to be taken into account.
	A
Setting up for work continued	41. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on metal pylons when setting up the machine and b) explain why a distance should be kept.
	A
Working tasks	42. What is meant by ‘toeing in’ when referring to the piling activity?
	A
	43. What does ‘backdriving’ mean?
	A
	44. What is meant by the term ‘refusal’?
	A
	45. What is meant by ‘splicing’?
	A
	46. What is meant by the term ‘raking angle’?
	A
	47. What is a ‘driven cast in-situ’ pile?
	A
Working tasks	48. Give THREE reasons that may cause the rig to overturn.
	A
	49. If radios are to be used during the piling operations, what FIVE actions and checks must be made by the rig operator before use?
A	
Working tasks	50. During the piling operation, part of the task cannot be carried out as detailed in the lift plan. a) What initially must happen to the piling operation and b) who authorises any changes?
	A

continued...

Working tasks continued	51. In driven piling, what is meant by the 'drop height'?
	A
	52. How can the noise level of the hammering operation be reduced on: a) pre-cast types and b) cast in-situ types?
	A
	53. Why are driven piles generally used on contaminated sites?
	A
	54. What is the function of the shoe as used in cast in-situ piling?
	A
	55. What are pre-cast piles most suitable for?
	A
Completing work	56. If the words STOP NOW are given to the rig operator by radio during the lift, what action must the operator take?
	A
Shutdown	57. a) What is meant by the lifting capacity of the rig and b) who determines it?
	A
	58. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
	59. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
Shutdown	60. 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.
	A
	61. 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?
	A
Shutdown	62. Why should the rig be re-fuelled at the end of the day?
	A

Piling Rig

A46

Driven above 15 tonnes

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
	A
	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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?
	A
	8. Rig operators are generally regarded as ‘safety-critical’ workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a piling rig?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations may apply to piling rig operations.
	A
Preparing for work	14. How can a qualification or card benefit a rig operator?
	A
	15. Name THREE ways that a rig operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the Operator’s Manual be kept and why?
A	
Preparing for work	17. What is the purpose of a roll or ROPS frame?
	A
	18. What are the THREE actions or stages that a rig operator undertakes during pre-use inspections?
A	

continued...

Preparing for work continued	For questions 19 and 20 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	19. Using the Operator's Manual, state the figure for setting the track tension.
	A
	20. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	21. A piling rig has been delivered to site, assembled and configured for work. What must be carried out before piling starts and by whom?
	A
	22. If checking the oil level using a dipstick, why must gloves be worn?
	A
	23. List FIVE checks that should be made to the tracks and running gear.
	A
	24. Name THREE different types of driven hammers.
	A
	25. Where would you find the dolly on a percussive driven hammer?
	A
26. Name THREE different types of driven pile.	
A	
27. What is the purpose of a cofferdam?	
A	
28. Apart from the operator, who else may need to use the machine's Operator's Manual?	
A	
29. What is the purpose of counterweight(s) on the rig?	
A	
30. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
A	

Travelling and manoeuvring	31. If both travel levers are pushed forwards when the track motors are in front of the cab, in which direction would the machine move?
	A
	32. If the rig has to cross 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?
	A
	33. a) What is the minimum distance allowed near open trenches when travelling the rig and b) explain why.
	A
	34. When MUST a banksman or signaller be used before moving a rig?
A	
35. Why must the seat belt be worn when travelling, even with the cab door closed?	
A	
Setting up for work	36. a) Which part of the rig applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
	A
	37. What checks and procedures need to be made before a 'permit to dig' can be issued?
	A
	38. Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
A	
39. 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?	
A	

Setting up for work continued	40. If setting up to pile near a pedestrianised area, state THREE factors that need to be taken into account.
	A
Setting up for work continued	41. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on metal pylons when setting up the machine and b) explain why a distance should be kept.
	A
Working tasks	42. What is meant by 'toeing in' when referring to the piling activity?
	A
	43. What does 'backdriving' mean?
	A
	44. What is meant by the term 'refusal'?
	A
	45. What is meant by 'splicing'?
	A
	46. What is meant by the term 'raking angle'?
	A
	47. What is a 'driven cast in-situ' pile?
	A
	48. Give THREE reasons that may cause the rig to overturn.
	A
49. If radios are to be used during the piling operations, what FIVE actions and checks must be made by the rig operator before use?	
A	
Working tasks	50. During the piling operation, part of the task cannot be carried out as detailed in the lift plan. a) What initially must happen to the piling operation and b) who authorises any changes?
	A

continued...

Working tasks continued	51. In driven piling, what is meant by the 'drop height'?
	A
	52. How can the noise level of the hammering operation be reduced on: a) pre-cast types and b) cast in-situ types?
	A
	53. Why are driven piles generally used on contaminated sites?
	A
	54. What is the function of the shoe (end-cap) as used in cast in-situ piling?
	A
	55. What are pre-cast piles most suitable for?
	A
Completing work	56. If the words STOP NOW are given to the rig operator by radio during the lift, what action must the operator take?
	A
Shutdown	57. a) What is meant by the lifting capacity of the rig and b) who determines it?
	A
	58. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
	59. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
Shutdown	60. 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.
	A
	61. 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?
	A
Shutdown	62. Why should the rig be re-fuelled at the end of the day?
	A

Piling Rig

A47

Bored below 15 tonnes

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
	A
	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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?
	A
	8. Rig operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a piling rig?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations may apply to piling rig operations.
	A
Preparing for work	14. How can a qualification or card benefit a rig operator?
	A
	15. Name THREE ways that a rig operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the Operator’s Manual be kept and why?
	A
	17. List FIVE checks that should be made to the tracks and running gear.
A	
	18. What is the purpose of a roll or ROPS frame?
	A
	19. What are the THREE actions or stages that a rig operator undertakes during pre-use inspections?
	A

continued...

Preparing for work continued	For questions 20 and 21 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	20. Using the Operator's Manual, state the figure for setting the track tension.
	A
	21. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	22. A piling rig has been delivered to site, assembled and configured for work. What must be carried out before piling starts and by whom?
	A
	23. If checking the oil level using a dipstick, why must gloves be worn?
	A
	24. When using a CFA type, what is the purpose of the leaders?
	A
	25. How is drive transmitted to the short auger?
	A
	26. Why is bored piling more suitable for use within urban areas?
	A
27. What is the purpose of a cofferdam?	
A	
28. Apart from the operator, who else may need to use the machine's Operator's Manual?	
A	
29. What is the purpose of counterweight(s) on the rig?	
A	
30. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
A	

Travelling and manoeuvring	31. If both travel levers are pushed forwards when the track motors are in front of the cab, in which direction would the machine move?
	A
	32. If the rig has to cross 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?
	A
	33. a) What is the minimum distance allowed near open trenches when travelling the rig and b) explain why.
	A
	34. When MUST a banksman or signaller be used before moving a rig?
	A
35. Why must the seat belt be worn when travelling, even with the cab door closed?	
A	
Setting up for work	36. a) Which part of the rig applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
	A
	37. What checks and procedures need to be made before a 'permit to dig' can be issued?
	A
	38. Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
	A
39. 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?	
A	

continued...

Setting up for work continued	40. If setting up to pile near a pedestrianised area, state THREE factors that need to be taken into account.
	A
	41. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on metal pylons when setting up the machine and b) explain why a distance should be kept.
	A
Working tasks	42. Name THREE different types of bored piling methods.
	A
	43. Give THREE reasons that may cause the rig to overturn.
	A
	44. If radios are to be used during the piling operations, what FIVE actions and checks must be made by the rig operator before use?
	A
	45. 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?
	A
	46. What is the function of the shoe (end-cap) as used in CFA piling?
	A
	47. How is a rotary auger of a bored rig cleaned?
	A
48. What size is the controlled or restricted zone around a CFA drilling operation?	
A	
49. What is the purpose of a double rotary head?	
A It	
50. What is meant by a 'contiguous pile line'?	
A	

continued...

Working tasks continued	51. Explain the purpose of the casings when piling.
	A
	52. What is the purpose of an oscillator?
	A
	53. When are the auger gates allowed to be opened in the middle of a CFA operation?
	A
	54. What is the purpose of a 'Tremie' pipe?
	A
	55. On CFA rigs, at what height should the auger be stopped when cleaning spoil from the auger?
	A
Completing work	56. If the words STOP NOW are given to the rig operator by radio during the lift, what action must the operator take?
	A
	57. a) What is meant by the lifting capacity of the rig and b) who determines it?
Shutdown	A
	58. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
Shutdown	59. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	60. 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.
	A

Shutdown continued	61. 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?
	A
	62. Why should the rig be re-fuelled at the end of the day?
	A

Piling Rig

A48

Bored above 15 tonnes

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
	A
	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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?
	A
	8. Rig operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a piling rig?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations may apply to piling rig operations.
	A
Preparing for work	14. How can a qualification or card benefit a rig operator?
	A
	15. Name THREE ways that a rig operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the Operator’s Manual be kept and why?
	A
	17. List FIVE checks that should be made to the tracks and running gear.
A	
	18. What is the purpose of a roll or ROPS frame?
	A
	19. What are the THREE actions or stages that a rig operator undertakes during pre-use inspections?
A	

continued...

Preparing for work continued	For questions 20 and 21 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	20. Using the Operator's Manual, state the figure for setting the track tension.
	A
	21. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	22. A piling rig has been delivered to site, assembled and configured for work. What must be carried out before piling starts and by whom?
	A
	23. If checking the oil level using a dipstick, why must gloves be worn?
	A
	24. When using a CFA type, what is the purpose of the leaders?
	A
	25. How is drive transmitted to the short auger?
	A
	26. Why is bored piling more suitable for use within urban areas?
	A
27. What is the purpose of a cofferdam?	
A	
28. Apart from the operator, who else may need to use the machine's Operator's Manual?	
A	
29. What is the purpose of counterweight(s) on the rig?	
A	
30. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
A	

Travelling and manoeuvring	31. If both travel levers are pushed forwards when the track motors are in front of the cab, in which direction would the machine move?
	A
	32. If the rig has to cross 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?
	A
	33. a) What is the minimum distance allowed near open trenches when travelling the rig and b) explain why.
	A
	34. When MUST a banksman or signaller be used before moving a rig?
A	
Setting up for work	35. Why must the seat belt be worn when travelling, even with the cab door closed?
	A
	36. a) Which part of the rig applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
	A
	37. What checks and procedures need to be made before a 'permit to dig' can be issued?
	A
Setting up for work	38. Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
	A
	39. 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?
A	

continued...

Setting up for work continued	40. If setting up to pile near a pedestrianised area, state THREE factors that need to be taken into account.
	A
	41. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on metal pylons when setting up the machine and b) explain why a distance should be kept.
	A
Working tasks	42. Name THREE different types of bored piling methods.
	A
	43. Give THREE reasons that may cause the rig to overturn.
	A
	44. If radios are to be used during the piling operations, what FIVE actions and checks must be made by the rig operator before use?
	A
	45. 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?
	A
	46. What is the function of the shoe (end-cap) as used in CFA piling?
	A
	47. How is a rotary auger of a bored rig cleaned?
	A
48. What size is the controlled or restricted zone around a CFA drilling operation?	
A	
49. What is the purpose of a double rotary head?	
A	
50. What is meant by a 'contiguous pile line'?	
A	

continued...

Working tasks continued	51. Explain the purpose of the casings when piling.
	A
	52. What is the purpose of an oscillator?
	A
	53. When are the auger gates allowed to be opened in the middle of a CFA operation?
	A
	54. What is the purpose of a 'Tremie' pipe?
	A
	55. On CFA rigs, at what height should the auger be stopped when cleaning spoil from the auger?
	A
Completing work	56. If the words STOP NOW are given to the rig operator by radio during the lift, what action must the operator take?
	A
Shutdown	57. a) What is meant by the lifting capacity of the rig and b) who determines it?
	A
	58. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
Shutdown	59. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	60. 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.
	A

Shutdown continued	61. 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?
	A
	62. Why should the rig be re-fuelled at the end of the day?
	A

Loader/Securer

A49

Non-STGO

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
	A
	5. What does the Health and Safety at Work Act require employers to do with regards specifically to vehicles and equipment?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the driver?
	A
	7. Name FOUR different types or levels of sanctions that can be applied to transport drivers who do not comply with, or follow legislation and regulations.
	A
	8. Transport drivers are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which transport drivers can minimise their impact upon the environment whilst using the vehicle.
	A
	10. In what situation does a hard hat need to be worn when driving a transporter?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations may apply to transporters.
	A
Preparing for work	14. How can a qualification or card benefit a transport driver?
	A
	15. Name THREE ways that a transport driver can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the vehicle's manual be kept and why?
A	
Preparing for work	17. What is a possible consequence of using a tyre with a deep cut in the sidewall?
	A
Preparing for work	18. If the transport driver has to top-up the engine oil, state TWO precautions to ensure cleanliness of the system.
	A

continued...

For questions 19 and 20 the Operator’s Manual for one of the items of plant being used for the test MUST be available for reference by the candidate	
Preparing for work continued	19. Using the machine’s Operator’s Manual, state the procedure for preparing and loading the machine onto a transporter.
	A
	20. Using the machine’s Operator’s Manual, state how the machine must be secured for transport.
	A
	21. If checking the oil level using a dipstick, why must gloves be worn?
	A
	22. What is the difference between a low loader and a semi-trailer?
	A
	23. Name ONE example of ‘road friendly’ suspension.
	A
24. On start up, the air pressure on the vehicle is low. What actions must the transport driver carry out before work and during work?	
A	
25. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
A	
Travelling and manoeuvring	26. Before setting off to retrieve a machine from site, in terms of arrival, what THREE things should be checked before leaving?
	A
	27. What problems and hazards can soft ground cause to a loaded transporter?
	A
28. a) What is the minimum distance allowed near open trenches when travelling with a transporter and b) explain why.	
A	

continued...

Travelling and manoeuvring continued	29. When are the most likely times that loads may move during transit in the transporter?
	A
	30. Give THREE possible reasons why transporters should not stray off the designated travel routes.
	A
Setting up for work	31. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	32. Name SIX safety considerations when selecting a site for loading or unloading plant.
	A
	33. Once the transporter is positioned, state SIX actions to be considered before loading commences.
	A
	34. Where and why would packing be used?
	A
	35. When is loading and unloading allowed on verges or footpaths?
	A
	36. Whenever possible, who should decide the positioning of the transporter for loading?
	A
Working tasks	37. When working in a confined area or space, name THREE hazards that can occur.
	A

continued...

Working tasks continued	38. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when loading and b) explain why a distance should be kept.
	A
	39. What is the maximum distance that the end marker board must be from the edge of a projection?
	A
	40. What checks should be made to flat webbing slings before use?
	A
	41. Under what conditions can lashing chains be used for lifting operations?
	A
	42. a) What type of lashing should be used when securing a 360 excavator fitted with rubber tracks and b) explain why.
	A
	43. Why should the centre of gravity of a load be in front of the rear axle of an articulated semi trailer?
	A
	44. What effect does chocking timber (dunnage) have on carrying capacity?
	A
	45. If loading a smooth drum ride-on roller, how can friction between the drums and the transporter ramps/bed be increased?
	A
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?	
A	
47. What is the definition of a 'long load'?	
A	
48. What is the maximum width of a load before it becomes classed as a 'wide load'?	
A	

continued...

Working tasks continued	49. State three instances when marker boards must be fitted.
	A
	50. Give FIVE instances where lights should be fitted to an overhanging load both widthways and lengthways.
	A
	51. What THREE pieces of information are needed to calculate axle loadings?
	A
	52. How is the kerbside weight of a vehicle determined?
	A
	53. Before loading or unloading on the public highway, what specific measures must be considered?
	A
	54. During the loading process, in terms of the load, what is the transporter driver responsible for?
	A
	55. When loading, where is the optimum, or best position to place an item of plant?
	A
	56. What is the recommended maximum pull on a restraining or lashing chain?
	A
57. In general: a) what is the maximum angle that lashings should be restricted to and b) why?	
A	
58. When securing machines having hydraulically operated booms (e.g. 360 excavators etc), what should be ensured when restraining?	
A	

continued...

Working tasks continued	59. On articulated-steered plant, what should be engaged after loading?
	A
	60. 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?
	A
	61. State: a) at what distance a rear overhang should be identified and b) how.
	A
	62. What checks should be made to cabbed machines after loading?
A	
Completing work	63. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	64. After loading and securing plant for transit: a) when should the lashings or securing equipment be re-checked and b) why?
A	
Shutdown	65. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out?
	A
	66. When parking the vehicle at the end of the shift, name THREE places where the transporter should NOT be parked.
	A
	67. 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?
A	
Shutdown	68. What is meant by Maximum Authorised Mass?
	A

Shutdown continued	69. What is the maximum gross train weight of vehicle movement allowed under the current Construction and Use Regulations on: a) Road Friendly Suspension and b) non Road Friendly Suspension?
	A
	70. a) How many mirrors are required on a rigid LGV transporter over 7.5 tonnes and b) where should they be positioned?
	A
	71. 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).
	A
	72. When a pick-up/transit type vehicle is over 3 tonnes in weight, what is required with regard to testing requirements?
	A
	73. Where should the vehicle plating certificate be positioned on the vehicle?
	A
	74. If a vehicle is carrying an item of plant that gives a total height of over three metres, what must be available to the driver en route?
	A
	75. Name FOUR items that must be displayed on a DoT approved plating certificate.
	A
76. What does the (new) driver Certificate of Professional Competence (CPC) require a driver to undertake every five years?	
A	
77. a) What type of licence and which class should a transport driver hold and b) what is the minimum age allowed?	
A	

continued...

Shutdown continued	78. Under the Road Traffic Act 1998, state ONE instance when an overloaded vehicle may travel on the public highway
	A
	79. If towing a trailer, what class of licence is required?
	A

Loader/Securer
STGO

A50

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
	A
	5. What does the Health and Safety at Work Act require employers to do with regards specifically to vehicles and equipment?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the driver?
	A
	7. Name FOUR different types or levels of sanctions that can be applied to transport drivers who do not comply with, or follow legislation and regulations.
	A
	8. Transport drivers are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which transport drivers can minimise their impact upon the environment whilst using the vehicle.
	A
	10. In what situation does a hard hat need to be worn when driving a transporter?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations may apply to transporters.
	A
Preparing for work	14. How can a qualification or card benefit a transport driver?
	A
	15. Name THREE ways that a transport driver can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the vehicle's manual be kept and why?
A	
Preparing for work	17. What is a possible consequence of using a tyre with a deep cut in the sidewall?
	A
	18. If the transport driver has to top-up the engine oil, state TWO precautions to ensure cleanliness of the system.
A	

continued...

For questions 19 and 20 the Operator’s Manual for one of the items of plant being used for the test MUST be available for reference by the candidate	
Preparing for work continued	19. Using the machine’s Operator’s Manual, state the procedure for preparing and loading the machine onto a transporter.
	A
	20. Using the machine’s Operator’s Manual, state how the machine must be secured for transport.
	A
	21. If checking the oil level using a dipstick, why must gloves be worn?
	A
	22. What is the difference between a low loader and a semi-trailer?
	A
	23. Name ONE example of ‘road friendly’ suspension.
	A
24. On start up, the air pressure on the vehicle is low. What actions must the transport driver carry out before work and during work?	
A	
25. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
A	
Travelling and manoeuvring	26. Before setting off to retrieve a machine from site, in terms of arrival, what THREE things should be checked before leaving?
	A
	27. What problems and hazards can soft ground cause to a loaded transporter?
	A
28. a) What is the minimum distance allowed near open trenches when travelling with a transporter and b) explain why.	
A	

continued...

Travelling and manoeuvring continued	29. When are the most likely times that loads may move during transit in the transporter?
	A
	30. Give THREE possible reasons why transporters should not stray off the designated travel routes.
	A
Setting up for work	31. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	32. Name SIX safety considerations when selecting a site for loading or unloading plant.
	A
	33. Once the transporter is positioned, state SIX actions to be considered before loading commences.
	A
	34. Where and why would packing be used?
	A
	35. When is loading and unloading allowed on verges or footpaths?
	A
Working tasks	36. Whenever possible, who should decide the positioning of the transporter for loading?
	A
	37. When working in a confined area or space, name THREE hazards that can occur.
	A

continued...

Working tasks continued	38. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when loading and b) explain why a distance should be kept.
	A
	39. What is the maximum distance that the end marker board must be from the edge of a projection?
	A
	40. What checks should be made to flat webbing slings before use?
	A
	41. Under what conditions can lashing chains be used for lifting operations?
	A
	42. a) What type of lashing should be used when securing a 360 excavator fitted with rubber tracks and b) explain why.
	A
	43. Why should the centre of gravity of a load be in front of the rear axle of an articulated semi trailer?
	A
	44. What effect does chocking timber (dunnage) have on carrying capacity?
	A
	45. If loading a smooth drum ride-on roller, how can friction between the drums and the transporter ramps/bed be increased?
	A
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?	
A	
47. What is the definition of a 'long load'?	
A	
48. What is the maximum width of a load before it becomes classed as a 'wide load'?	
A	

continued...

Working tasks continued	49. State three instances when marker boards must be fitted.
	A
	50. Give FIVE instances where lights should be fitted to an overhanging load both widthways and lengthways.
	A
	51. What THREE pieces of information are needed to calculate axle loadings?
	A
	52. How is the kerbside weight of a vehicle determined?
	A
	53. Before loading or unloading on the public highway, what specific measures must be considered?
	A
	54. During the loading process, in terms of the load, what is the transporter driver responsible for?
	A
	55. When loading, where is the optimum, or best position to place an item of plant?
	A
	56. What is the recommended maximum pull on a restraining or lashing chain?
	A
57. In general: a) what is the maximum angle that lashings should be restricted to and b) why?	
A	
58. When securing machines having hydraulically operated booms (e.g. 360 excavators etc), what should be ensured when restraining?	
A	

continued...

Working tasks continued	59. On articulated-steered plant, what should be engaged after loading?
	A
	60. 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?
	A
	61. State: a) at what distance a rear overhang should be identified and b) how.
	A
	62. What checks should be made to cabbed machines after loading?
	A
	63. Under Special Types General Order, give TWO instances when an attendant is required.
	A
	64. What is the minimum height of an amber flashing beacon?
	A
	65. When would outriggers on the trailer normally be used?
	A
Completing work	66. What is the meaning of this symbol (being demonstrated by the Tester)?
	A
	67. 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.
	A
Completing work	68. After loading and securing plant for transit: a) when should the lashings or securing equipment be re-checked and b) why?
	A
	69. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out?
A	

Shutdown	70. When parking the vehicle at the end of the shift, name THREE places where the transporter should NOT be parked.
	A
	71. 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?
	A
	72. What is meant by Maximum Authorised Mass?
	A
	73. What is the maximum gross train weight of vehicle movement allowed under the current Construction and Use Regulations on: a) Road Friendly Suspension and b) non Road Friendly Suspension?
	A
	74. a) How many mirrors are required on a rigid LGV transporter over 7.5 tonnes and b) where should they be positioned?
	A
	75. 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).
	A
	76. In terms of gross vehicle weights, at which weight do the Police require written notification of the movement?
	A
	77. Where should the vehicle plating certificate be positioned on the vehicle?
	A
78. If a vehicle is carrying an item of plant that gives a total height of over three metres, what must be available to the driver en route?	
A	
79. Name FOUR items that must be displayed on a DoT approved plating certificate.	
A	

continued...

Shutdown continued	80. What does the (new) driver Certificate of Professional Competence (CPC) require a driver to undertake every five years?
	A
	81. a) What type of licence and which class should STGO transport drivers hold and b) what is the minimum age allowed?
	A
	82. What is the maximum allowable total laden weight of a category 2 vehicle or combination?
	A
	83. Under the Road Traffic Act 1998, state ONE instance when an overloaded vehicle may travel on the public highway
	A
	84. State the minimum time period when notification has to be given to the Highways and Bridges Authorities if the total weight exceeds 80,000 kg.
	A
85. What is the maximum permitted axle weight on a Low Loader?	
A	
86. How many days clear notice is required, if the width of the load to be moved exceeds 5 metres and is up to 6.1 metres wide?	
A	

Dump Truck
Articulated Chassis

A56
Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
	A
	5. What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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.
	A
	8. Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a dump truck?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations may apply to dump trucks.
	A
Preparing for work	14. How can a qualification or card benefit a plant operator?
	A
	15. What is a dump truck operator's main purpose or requirement?
	A
	16. Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	17. Where should the dump truck's Operator's Manual be kept and why?
	A
	18. What is a possible consequence of using a tyre with a deep cut in the sidewall?
A	
19. When would the body safety strut or support be used?	
A	

continued...

Preparing for work continued	20. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
	A
	For questions 21 and 22 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	21. Using the Operator's Manual, state the figure for tyres' operating pressure.
	A
	22. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	23. 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?
	A
	24. If checking the oil level using a dipstick, why must gloves be worn?
	A
	25. Apart from the operator, who else may need to use the machine's Operator's Manual?
	A
	26. What is the purpose of a ROPS cab?
	A
	27. A dump truck is classified by a manufacturer as a 30 tonne machine. What does this mean?
A	
28. State the purpose of a heated body.	
A	
29. On start up, the air pressure on the machine is low. What actions must the operator carry out before work and during work?	
A	

continued...

Preparing for work continued	30. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
Travelling and manoeuvring	31. The rear axle units on most dump trucks pivot on the chassis. Explain the reason for pivoting axles.
	A
	32. a) State the purpose of a retarder and b) and the possible consequences of not using it when required.
	A
	33. 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?
	A
	34. What problems and hazards can soft ground cause to a loaded dump truck?
	A
	35. a) Give ONE advantage and b) TWO disadvantages of rear mounted cameras.
	A
	36. a) What is the minimum distance allowed near open trenches when travelling with a dump truck and b) explain why.
	A
37. If the machine is being travelled or working on the public highway, including adjacent pavements and verges, 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?	
A	
38. When travelling on wet clay, what effect does this have on the dump truck?	
A	

continued...

Travelling and manoeuvring continued	39. Why must the seat belt be worn at all times, even with the cab door closed?
	A
	40. Give THREE possible reasons why dump trucks should not stray off the designated haul routes.
	A
Setting up for work	41. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	42. Whenever possible, who should decide the positioning of the dump truck for loading?
	A
	43. The operator is asked to tip material into a new trench. State FIVE different requirements that must be considered or implemented before tipping commences.
	A
	44. Give TWO reasons why the dump truck operator should have an understanding of the type of spoil being transported.
	A
Working tasks	45. When working in a confined area or space, what danger can be present with an articulated dump truck with regards to steering?
	A
	46. Why should tail gates not be fitted when transporting bulky or rock type material?
	A
	47. When working in a confined area or space, name THREE hazards that can occur.
	A

continued...

Working tasks continued	48. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when tipping loads and b) explain why a distance should be kept.
	A
	49. 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?
	A
	50. Who should determine the maximum load that should be placed into the body of the dump truck?
	A
	51. State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
	A
	52. 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?
	A
	53. If a load has to be tipped on a slope, what may happen if the load is tipped downhill and why?
	A
54. An operator has been asked to transport a load down a small section of the public highway, for which the Road Traffic Act applies. What effect does this have on dump truck operations?	
A	
55. 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?	
A	
56. What is the meaning of this hand signal (being demonstrated by the Tester)?	
A	

continued...

Working tasks continued	57. Operators should lower the body fully before driving away. Give TWO possible consequences if this is not carried out.
	A
Completing work	58. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
Shutdown	59. When parking the machine at the end of the shift, name THREE places where the dump truck should NOT be parked.
	A
	60. 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?
	A
	61. Why should a dump truck be re-fuelled at the end of the day?
	A
	62. 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.
	A
63. 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.	
A	

Dump Truck

A57

Rigid Chassis

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
	A
	5. What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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.
	A
	8. Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a dump truck?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations may apply to dump trucks.
	A
	14. How can a qualification or card benefit a plant operator?
	A
Preparing for work	15. What is a dump truck operator's main purpose or requirement?
	A
	16. Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	17. Where should the dump truck's Operator's Manual be kept and why?
A	
Preparing for work	18. What is a possible consequence of using a tyre with a deep cut in the sidewall?
	A
	19. When would the body safety strut or support be used?
A	

continued...

Preparing for work continued	20. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
	A
	For questions 21 and 22 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	21. 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.
	A
	22. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	23. If fitted, name the purpose of having independent front suspension.
	A
	24. If checking the oil level using a dipstick, why must gloves be worn?
	A
	25. Apart from the operator, who else may need to use the machine's Operator's Manual?
	A
	26. What is the purpose of a ROPS cab?
	A
	27. A dump truck is classified by a manufacturer as a 60 tonne machine. What does this mean?
	A
	28. Why do most dump trucks have a sloping body tail?
	A
	29. On start up, the air pressure on the machine is low. What actions must the operator carry out before work and during work?
	A
	30. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A

Travelling and manoeuvring	31. a) State the purpose of a retarder and b) and the possible consequences of not using it when required.
	A
	32. 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?
	A
	33. What problems and hazards can soft ground cause to a loaded dump truck?
	A
	34. a) Give ONE advantage and b) TWO disadvantages of rear mounted cameras.
	A
	35. a) What is the minimum distance allowed near open trenches when travelling with a dump truck and b) explain why.
	A
	36. If the machine is being travelled or working on the public highway, including adjacent pavements and verges, 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?
	A
	37. When travelling on wet clay, what effect does this have on the dump truck?
	A
38. Why must the seat belt be worn at all times, even with the cab door closed?	
A	
39. Name THREE conditions that the mirrors on the machine must be in.	
A	
40. Give THREE possible reasons why dump trucks should not stray off the designated haul routes.	
A	

Setting up for work	41. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	42. Whenever possible, who should decide the positioning of the dump truck for loading?
	A
	43. The operator is asked to tip material into a new trench. State FIVE different requirements that must be considered or implemented before tipping commences.
	A
Working tasks	44. Give TWO reasons why the dump truck operator should have an understanding of the type of spoil being transported.
	A
	45. Why should tail gates not be fitted when transporting bulky or rock type material?
	A
	46. When working in a confined area or space, name THREE hazards that can occur.
	A
	47. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when tipping loads and b) explain why a distance should be kept.
	A
48. 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?	
A	
49. Who should determine the maximum load that should be placed into the body of the dump truck?	
A	

continued...

Working tasks continued	50. State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
	A
	51. 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?
	A
	52. If a load has to be tipped on a slope, what may happen if the load is tipped downhill and why?
	A
	53. An operator has been asked to transport a load down a small section of the public highway, for which the Road Traffic Act applies. What effect does this have on dump truck operations?
	A
	54. 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?
	A
55. What is the meaning of this hand signal (being demonstrated by the Tester)?	
A	
56. Operators should lower the body fully before driving away. Give TWO possible consequences if this is not carried out.	
A	
Completing work	57. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A

Shutdown	58. Many dump trucks have a turbo-charged engine. a) What is the normal procedure before switching of the engine after working and b) what happens if the procedure is not followed?
	A
	59. When parking the machine at the end of the shift, name THREE places where the dump truck should NOT be parked.
	A
	60. Why should a dump truck be re-fuelled at the end of the day?
	A
	61. 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.
	A
	62. 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.
	A

Excavator 360

A58

Below 10 tonne

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
	A
	5. What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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.
	A
	8. Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a 360 excavator?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
	A
	13. How can a qualification or card benefit a plant operator?
	A
Preparing for work	14. Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	15. Where should the excavator's Operator's Manual be kept and why?
	A
	16. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
	A

continued...

Preparing for work continued	For questions 17 and 18 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	17. Using the Operator's Manual, state the figure for setting track tension. For wheeled units, state the tyres' operating pressure.
	A
	18. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	19. State the purpose of the check valve(s) located on the boom cylinder rams.
	A
	20. What is the purpose of a roll or ROPS frame?
	A
	21. If checking the oil level using a dipstick, why must gloves be worn?
	A
	22. Apart from the operator, who else may need to use the machine's Operator's Manual?
	A
	23. What is the purpose of the counterweight of the machine?
	A
24. What is meant by zero-tail swing excavators?	
A	
25. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
A	
Travelling and manoeuvring	26. 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?
	A

continued...

Travelling and manoeuvring continued	27. If the machine is being travelled or working on the public highway, including adjacent pavements 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?
	A
	28. When MUST a banksman/signaller be used before moving an excavator?
	A
	29. Why must the seat belt be worn, even with the cab door closed?
	A
Setting up for work	30. Give FOUR reasons that may cause the machine to tip over – forwards and/or sideways.
	A
	31. What information does the 'dig-envelope' (also known as 'working range') chart give? (Candidates may be shown a copy of a chart)
	A
	32. Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.
	A
	33. 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?
	A
	34. Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?
A	

continued...

Setting up for work continued	35. Describe ONE physical method of checking that a bucket is fully secured to the quick-hitch coupler prior to work.
	A
	36. Name TWO types of equipment used to ensure that excavation levels, measurements and positions are to the required specification.
	A
	37. 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?
	A
	38. If setting up to excavate in a confined area, name TWO things that should be taken into account before starting.
	A
	39. What particular and specific hazards can affect the stability of the machine when working on old industrial (Brownfield) sites?
	A
	40. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	41. The operator is asked to excavate a new trench. State FIVE different requirements that must be considered or implemented before work commences.
	A
42. Before manually changing any bucket: a) where should the bucket be positioned (in relation to the ground) before removing the final pin and b) why?	
A	

continued...

Setting up for work continued	43. With regards to lifting accessories, irrespective of who supplied the accessories, what THREE factors should be ensured before the accessories are used?
	A
Setting up for work continued	44. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when setting up the machine and b) explain why a distance should be kept.
	A
Working tasks	45. 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 placing spoil and b) explain why.
	A
	46. Why should different soils be segregated during excavating?
	A
	47. Give THREE reasons why an oversize bucket should not be used when excavating trenches to specification.
	A
	48. a) Why should the slewing direction be to the left wherever possible and b) explain why.
	A
	49. Why must excavator operators not begin to load vehicles until the forward tipping dumper driver is clear of their machine?
	A
Working tasks	50. What makes up the total (or gross) weight of a load that is to be lifted'?
	A
	51. Using the lifting capacity diagram (Annex A): a) what is the maximum lifting capacity at 4 metres radius over the sides of the track with the load at a height of 1.0 metre, b) what effect does fitting a bucket have on the lifting capacity and c) what effect does the dozer blade have on the lifting capacity?
	A The Annex will be provided by the Tester at the Test
Working tasks	52. What factors determine the shoring requirements of a trench?
	A

continued...

Working tasks continued	53. Give TWO reasons why, wherever possible, operators should excavate ground in layers.
	A
	54. If a yellow coloured marker tape is unearthed during excavating, which two types of services could this indicate?
	A
	55. What is the nearest distance allowed to gas pipes when excavating with the machine?
	A
	56. When slewing with a load, where should the operator be looking?
	A
	57. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	58. Explain a possible danger if the excavator is lifting a load on sloping ground, even though the load chart indicates that the machine can lift that load?
	A
Completing work	59. Before lowering a pipe into a deep trench, what trench-related checks must be made?
	A
	60. If the excavator is carrying out deep excavating work using the full working range, what hazard may occur?
A	
Shutdown	61. Describe TWO actions to be taken for an open trench at the end of a working day.
	A
Completing work	62. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
Shutdown	63. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A

continued...

Shutdown continued	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.
	A
	65. Why should an excavator be re-fuelled at the end of the day?
	A

Excavator 360

A59

Above 10 tonne

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
	A
	5. What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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.
	A
	8. Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a 360 excavator?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations may apply to 360 excavator operations.
	A
Preparing for work	14. How can a qualification or card benefit a plant operator?
	A
	15. Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
Preparing for work	16. Where should the excavator's Operator's Manual be kept and why?
	A
Preparing for work	17. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
	A

continued...

Preparing for work continued	For questions 18 and 19 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	18. Using the Operator's Manual, state the figure for setting track tension. For wheeled units, state the tyres' operating pressure.
	A
	19. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	20. State the purpose of the check valve(s) located on the boom cylinder rams.
	A
	21. What is the purpose of a roll or ROPS frame?
	A
	22. If checking the oil level using a dipstick, why must gloves be worn?
	A
	23. Apart from the operator, who else may need to use the machine's Operator's Manual?
	A
	24. What is the purpose of the counterweight of the machine?
	A
25. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
A	
Travelling and manoeuvring	26. 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?
	A
	27. If the machine is being travelled or working on the public highway, including adjacent pavements 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?
A	

continued...

Travelling and manoeuvring continued	28. When MUST a banksman/signaller be used before moving an excavator?
	A
	29. Why must the seat belt be worn, even with the cab door closed?
Setting up for work	A
	30. Give FOUR reasons that may cause the machine to tip over – forwards and/or sideways.
	A
	31. What information does the 'dig-envelope' (also known as 'working range') chart give? (Candidates may be shown a copy of a chart)
	A
	32. Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.
	A
	33. 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?
	A
34. Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?	
A	
35. Describe ONE physical method of checking that a bucket is fully secured to the quick-hitch coupler prior to work.	
A	
36. Name TWO types of equipment used to ensure that excavation levels, measurements and positions are to the required specification.	
A	

continued...

Setting up for work continued	37. 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?
	A
	38. If setting up to excavate in a confined area, name TWO things should be taken into account before starting.
	A
	39. What particular and specific hazards can affect the stability of the machine when working on old industrial (Brownfield) sites?
	A
	40. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	41. The operator is asked to excavate a new trench. State FIVE different requirements that must be considered or implemented before work commences.
	A
	42. Before manually changing any bucket: a) where should the bucket be positioned (in relation to the ground) before removing the final pin and b) why?
	A
43. With regards to lifting accessories, irrespective of who supplied the accessories, what THREE factors should be ensured before the accessories are used?	
A	
44. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when setting up the machine and b) explain why a distance should be kept.	
A	

continued...

Working tasks	45. 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 placing spoil and b) explain why.
	A
	46. Why should different soils be segregated during excavating?
	A
	47. Give THREE reasons why an oversize bucket should not be used when excavating trenches to specification.
	A
	48. a) Why should the slewing direction be to the left wherever possible and b) explain why.
	A
	49. Why must excavator operators not begin to load vehicles until the forward tipping dumper driver is clear of their machine?
	A
	50. What makes up the total (or gross) weight of a load that is to be lifted'?
	A
	51. Using the lifting capacity diagram (Annex A): a) if the machine is equipped with a 2.50 metre long dipper, what is the maximum lifting capacity in tonnes at 6 metres radius over the sides of the track with the load at 3.0 metres height and b) if a longer dipper is fitted, what effect does that have on the lifting capacity?
	A The Annex will be provided by the Tester at the Test
52. What factors determine the shoring requirements of a trench?	
A	
53. Give TWO reasons why, wherever possible, operators should excavate ground in layers.	
A	
54. If a yellow coloured marker tape is unearthed during excavating, which two types of services could this indicate?	
A	

continued...

Working tasks continued	55. What is the nearest distance allowed to gas pipes when excavating with the machine?
	A
	56. When slewing with a load, where should the operator be looking?
	A
	57. What is the meaning of this hand signal (being demonstrated by the tester)?
	A
	58. Explain a possible danger if the excavator is lifting a load on sloping ground, even though the load chart indicates that the machine can lift that load?
	A
	59. Before lowering into or moving a drag box into a trench, what trench-related checks must be made?
A	
60. If the excavator is carrying out deep excavating work using the full working range, what hazard may occur?	
A	
Completing work	61. Describe TWO actions to be taken for an open trench at the end of a working day.
	A
	62. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
A	
Shutdown	63. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	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.
A	

Shutdown continued	65. 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?
	A
	66. Why should an excavator be re-fuelled at the end of the day?
	A

Mobile Crane

A60

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
	A
	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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?
	A
	8. Crane operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. State the functions or job role of the following personnel: a) Appointed Person, b) Crane Supervisor, c) Slinger, d) Signaller
	A
	11. In what situation does a hard hat NOT need to be worn when operating a mobile crane?
	A
	12. 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?
	A
	13. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	14. Give TWO examples of where The Work at Height Regulations may apply to mobile crane operations.
	A
	15. How can a qualification or card benefit a crane operator?
	A
	16. Name THREE ways that a crane operator can contribute in ensuring repeat business with the client or main contractor.
	A

continued...

Preparing for work	17. Where should the Operator’s Manual be kept and why?
	A
	18. What is the difference between a contract lift and a ‘standard’ crane hire?
	A
	19. 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.
	A
	20. a) What is meant by the lifting capacity of the crane and b) who determines it?
	A
	21. What is the purpose of a roll or ROPS frame?
	A
	22. What are the THREE actions or stages that a crane operator undertakes during pre-use inspections?
	A
	For questions 23 and 24 the Operator’s Manual for the machine being used for the test MUST be available for reference by the candidate
	23. Using the Operator’s Manual, state the figure for the tyre pressures.
	A
	24. Using the Operator’s Manual, state the cold-starting procedure for the crane (can be the drive engine or auxiliary engine).
A	
25. What is the purpose of the hoisting limit switch (also known as the ‘chandelier’)?	
A	
26. What is meant by the footprint of the crane?	
A	
27. Which parts of the crane is the radius (for lifting) measured from?	
A	

continued...

Preparing for work continued	28. If checking the oil level using a dipstick, why must gloves be worn?
	A
	29. Apart from the operator, who else may need to use the machine's Operator's Manual?
	A
	30. What is the purpose of counterweight(s) on the crane?
	A
	31. 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?
	A
	32. When would a fly jib or lattice extension be fitted and used?
	A
Travelling and manoeuvring	33. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	34. 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?
	A
	35. 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?
	A
	36. a) What is the minimum distance allowed near open trenches when travelling the crane and b) explain why.
A	
37. When MUST a banksman or signaller be used before moving a crane?	
A	

continued...

Travelling and manoeuvring continued	38. Why must the seat belt be worn, even with the cab door closed?
	A
	39. If asked to travel with a suspended load, name FIVE factors that must be taken into account by the operator before moving
	A
Setting up for work	40. a) Which part of the crane applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
	A
	41. If a load of 40 tonnes is lifted on 4 falls or lines of rope, what is the tension in each fall or line?
	A
	42. Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
	A
	43. What is the main purpose of the Rated Capacity Indicator (RCI)?
	A
	44. 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?
	A
	45. If setting up to lift loads in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	46. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on metal pylons when setting up the machine and b) explain why a distance should be kept.
	A

continued...

Setting up for work continued	47. On a busy construction site, how would the slinger/signaller be identified to the crane operator?
	A
Setting up for work continued	48. a) Who only can authorise partial outrigger extensions and b) what is the effect on lifting capacity by partially extending the outriggers?
	A
Working tasks	49. The safe working load or working load limit (SWL/WLL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
	A
	50. The number of falls has been changed on the hook block. How has this action affected the RCI?
	A
	51. Name TWO things that happen if the hoist rope is not vertical when lifting a load.
	A
	52. Give FOUR reasons that may cause the crane to overturn.
	A
	53. When slewing with a load, where should the operator be looking?
	A
54. If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the crane operator before use?	
A	
Working tasks	55. What makes up the total (or gross) weight of a load that is to be lifted?
	A

continued...

Working tasks continued	56. Using the lifting capacity diagram (Annex A): 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?
	A The Annex will be provided by the Tester at the Test
	57. Name TWO ways that wet weather can affect lifting operations.
	A
	58. As the crane rotates through 360 degrees with a load, what happens to the loading on each outrigger or wheel?
	A
	59. What effect can a swinging load have on a crane?
	A
	60. An operator has been asked to transport 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?
	A
	61. 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?
	A
	62. Name THREE ways in which wind speed can affect the lifting operation.
	A
	63. If a load is slewed rather quickly, what TWO initial effects does it have on the load whilst slewing?
A	
64. If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take?	
A	
65. Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted?	
A	

continued...

Working tasks continued	66. 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?
	A
	67. How does the deflection of the boom or jib affect lift?
	A
	68. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	69. If the hook block inadvertently (accidentally) lands, what course of action should be taken?
A	
Completing work	70. 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?
	A
Shutdown	71. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
	72. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	73. Why should the crane be re-fuelled at the end of the day?
	A

Appointed Person

A61

Technical Test – Theory

Note: The candidate may refer to copies of the guidance notes of PUWER 1998, LOLER 1998 and BS 7212 parts 1 to 3 during the theory test

Legislative and regulative	1. Explain the difference between an employing and user organisation.
	A
	2. State why there must be a safe system of work.
	A
	3. Name TWO duties of the crane operator.
	A
	4. Name FOUR items that must be recorded when a thorough examination on a lifting appliance has been carried out.
	A
	5. What is the Factor of Safety when lifting personnel?
	A
6. Who has overall control of the lifting operation?	
A	
7. When a crane company hires out a crane, name TWO main legal requirements the hire company must meet regarding the crane and driver.	
A	
8. To whom should the appointed person give all details involving the lifting operation?	
A	
9. Who is responsible for providing the contractor with written details of the work to be done?	
A	
10. Name TWO possible penalties for not following legal requirements when using a crane.	
A	

continued...

Legislative and regulative continued	11. Which part of BS 7121 is specific to mobile cranes?
	A
	12. State which bodies have to be notified when planning a lift on or near by: a) Rivers, b) Airfields, c) Highways, d) Railways, e) Live plant.
	A
	13. What is the definition of a competent person as stated by Codes of Practice?
	A
	14. State ONE difference between a regulation and a Code of Practice.
	A
	15. What types of crane are not covered by BS 7121?
	A
	16. State the legislation and the regulation therein that refers to the stability of cranes.
	A
	17. What is the main aim of the HASWA 1974?
	A
18. Name two possible penalties for not following legal requirements when using a crane.	
A	
19. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?	
A	
Lifting equipment (cranes)	20. What is the minimum recommended distance that is allowed between the counterweight(s) of the crane and another object/structure?
	A
	21. Explain the purpose of the over hoist limit switch.
A	

continued...

Lifting equipment (cranes) continued	22. Name THREE factors that determine the safe working load of the crane.
	A
	23. What is a Load Radius Indicator?
	A
	24. Define the term 'Radius'.
	A
	25. Describe how to calculate the area of support beneath a crane outrigger, which gives maximum possible safeguards against ground subsidence.
	A
	26. If a crane is out of level, what effect will it have on the radius?
	A
	27. 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.
	A
	28. In what application have single leg slings been rated with their SWL (WLL)?
	A
29. When and why are axle or suspension locks fitted to most mobile cranes?	
A	
30. What advantage is there by increasing the number of falls on a hook block?	
A	
31. What does the term 'structural strength' relate to with regard to the lifting capacity of the crane?	
A	

continued...

Lifting equipment (cranes) continued	32. What is a Load Radius Indicator?
	A
	33. What are the types of warning that an RCI will indicate, and at what point are they activated?
	A
	34. a) Where must the load radius diagram on a tower crane be located and b) what information must it contain?
	A
Lifting accessories	35. How does the deflection of the boom on a mobile crane or jib affect lift?
	A
	36. State the maximum recommended angle for single leg slings when used as a pair.
	A
	37. List FOUR items to be found on a chain sling inspection certificate.
	A
	38. Name a design of accessory hook that is exempt from being fitted with a safety catch.
	A
	39. What is the maximum angle a bow shackle used as a pair on a crane hook can be used at?
	A
	40. How long is a thorough examination for a lifting accessory valid for?
	A
	41. How is the SWL/WLL/rated capacity for multi-legs slings determined?
	A
42. Give TWO methods of obtaining the centre of gravity on an unbalanced load.	
A	
43. If a load of 20 tonnes is lifted on 4 falls of rope, what is the tension in each fall?	
A	
44. Name three markings found on multiple leg slings.	
A	

continued...

Lifting accessories continued	45. State the sling angle if the distance between the lifting points is one and a half times the leg length.
	A
Lifting accessories continued	46. What is the Factor of Safety for chains?
	A
Communication	47. If radios are to be used during the lifting operations, what FIVE actions and checks must be made before use?
	A
	48. Using simple graphics draw the recommended hand signals for: a) emergency stop and b) hoist up.
	A
Communication	49. Why is it recommended to complete a report after the completion of the lifting operation?
	A
	50. State the safe procedure to be followed before lifting or lowering a load down a shaft or excavation.
	A
Planning	51. State SIX environmental factors that can affect an external lifting operation.
	A
	52. Why must a crane driver never try and 'drag' a load?
	A
	53. List TWO methods of obtaining the accurate weight of a load.
	A
	54. Identify FOUR requirements for ensuring the stability of mobile cranes on site.
A	

continued...

Planning continued	55. Give THREE examples of how excessive rain can affect an external lifting operation when using a mobile crane.
	A
	56. A replacement crane driver has been supplied to continue the lift. What must they be made aware of before further lifting can take place?
	A
	57. During dismantling operations, what is the recommended percentage of de-rating if lifting a load from height where the weight has been estimated?
	A
	58. Give one reason why it is not advised to lift a single load using the fly hook block and main hook block.
	A
	59. Name the section in BS 7121 where advice is given if carrying out 'free-on-wheels' duties.
	A
	60. Explain the additional requirements of a standard lift over a basic lift.
	A
	61. With a bearing load of 14,000 kg and an outrigger base of 1m square, what would be the resultant ground pressure in kg?
	A
	62. Define the term 'outreach'.
A	
63. During dismantling operations, what is the recommended percentage of de-rating if lifting a load from height where the load has been estimated?	
A	
64. Where a scale drawing is being used, if the scale used is 1:200, what is the 1 cm equivalent to?	
A	
65. If planning to lift loads in or near a pedestrianised area, what main factor needs to be taken into account?	
A	

continued...

Planning continued	66. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on metal pylons and b) explain why a distance should be kept.
	A
	67. Two cranes are working in the same vicinity that encroach the operating radius of each. What actions should the lift plan or method statement normally specify?
	A

Crane/Lifting Operations Supervisor

A62

Technical Test – Theory

Note: The candidate may refer to copies of the guidance notes of PUWER 1998, LOLER 1998 and BS 7212 parts 1 to 3 during the theory test

Legislative and regulative	1. Explain the difference between an employing and user organisation.
	A
	2. State why there must be a safe system of work.
	A
	3. Name TWO duties of the crane operator.
	A
	4. Name FOUR items that must be recorded when a thorough examination on a lifting appliance has been carried out.
	A
	5. What is the Factor of Safety when lifting personnel?
	A
	6. Who has overall control of the lifting operation?
	A
	7. When a crane company hires out a crane, name TWO main legal requirements the hire company must meet regarding the crane and driver.
	A
	8. To whom should the appointed person give all details involving the lifting operation?
	A
	9. Who is responsible for providing the contractor with written details of the work to be done?
	A

continued...

Legislative and regulative continued	10. Name TWO possible penalties for not following legal requirements when using a crane.
	A
	11. Which part of BS 7121 is specific to mobile cranes?
	A
	12. What is the definition of, or how can a hazard be described?
	A
	13. What is the purpose of a risk assessment?
	A
	14. List SIX typical subject areas that should be covered in a site induction.
	A
	15. What THREE main duties of The Health and Safety at Work Act must employees follow?
	A
	16. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	17. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	18. 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?
	A
19. 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?	
A	

continued...

Legislative and regulative continued	20. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	21. What do The Work at Height Regulations require of crane supervisors?
	A
	22. How can a qualification or card benefit a crane supervisor?
	A
Lifting equipment (cranes)	23. What is the difference between a contract lift and a 'standard' crane hire?
	A
	24. What effect does boom and chassis deflection have on the radius of a crane?
	A
	25. What is the minimum recommended distance that is allowed between the counterweight(s) of the crane and another object/structure?
	A
	26. What advantage is there by increasing the number of falls on a hook block?
	A
	27. Explain the purpose of the over hoist limit switch.
	A
	28. Name THREE factors that determine the safe working load of the crane.
	A
	29. Why is it important to ensure the wheels are clear of the ground when outriggers are employed?
	A
	30. What is a Load Radius Indicator?
A	
31. Define the term 'Radius'.	
A	

continued...

Lifting equipment (cranes) continued	32. Describe how to calculate the area of support beneath a crane outrigger, which gives maximum possible safeguards against ground subsidence.
	A
	33. If a crane is out of level, what effect will it have on the radius?
	A
	34. What are the types of warning that an RCI will indicate?
	A
	35. 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.
	A
	36. In what application have single leg slings been rated with their SWL (WLL)?
	A
	37. When and why are axle or suspension locks fitted to most mobile cranes?
	A
	38. 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?
	A
39. Name THREE ways in which an operator can minimise their impact upon the environment whilst using a crane.	
A	
40. Name THREE ways that a crane supervisor can contribute in ensuring repeat business with the client or main contractor.	
A	
41. Where should the crane's Operator's Manual be kept and why?	
A	

continued...

Lifting equipment (cranes) continued	42. a) What is meant by the lifting capacity of the crane and b) who determines it?
	A
	43. What are the THREE actions or stages that a crane operator undertakes during pre-use inspections?
	A
	44. a) On a tower crane, where must the load radius diagram be located and b) what information must it contain?
	A
	45. A tower crane has been delivered to site, assembled and configured for lifting. What must be carried out before lifting starts and by whom?
	A
Lifting accessories	46. Name FIVE requirements that must be followed if accessing the end of the jib for maintenance purposes.
	A
	47. How does the deflection of the boom on a mobile crane or jib affect lift?
	A
	48. State the maximum recommended angle for single leg slings when used as a pair.
	A
	49. List FOUR items to be found on a chain sling inspection certificate.
	A
50. Name a design of accessory hook that is exempt from being fitted with a safety catch.	
A	
51. What is the maximum angle a bow shackle used as a pair on a crane hook can be used at?	
A	
52. How long is a thorough examination for a lifting accessory valid for?	
A	

continued...

Lifting accessories continued	53. How is the SWL/WLL/rated capacity for multi-legs slings determined?
	A
Lifting accessories continued	54. Give TWO methods of obtaining the centre of gravity on an unbalanced load.
	A
Communication	55. If radios are to be used during the lifting operations, what FIVE actions and checks must be made before use?
	A
Communication	56. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
Supervising	57. State the safe procedure to be followed before lifting or lowering a load down a shaft or excavation.
	A
	58. State SIX environmental factors that can affect an external lifting operation.
	A
	59. Why must a crane driver never try and 'drag' a load?
	A
	60. List TWO methods of obtaining the accurate weight of a load.
	A
	61. Identify FOUR requirements for ensuring the stability of mobile cranes on site.
	A
62. Give THREE examples of how excessive rain can affect an external lifting operation when using a mobile crane.	
A	
Supervising	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?
	A

continued...

Supervising continued	64. If setting up to lift loads near a pedestrianised area, what main factor needs to be taken into account?
	A
	65. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on metal pylons and b) explain why a distance should be kept.
	A
	66. 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?
	A
	67. 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?
	A
	68. At the end of the shift: a) in what position should luffing jibs on a tower crane be left in and b) why?
A	
69. 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?	
A	

Pedestrian Operated Tower Crane

A63

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
	A
	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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?
	A
	8. Crane operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. State the functions or job role of the following personnel: a) Appointed Person, b) Crane Supervisor, c) Slinger, d) Signaller
	A
	11. The operator has to use a new model of POTC that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the operator to have?
	A
	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
	13. What do The Work at Height Regulations require of crane operations.
	A
Preparing for work	14. How can a qualification or card benefit a crane operator?
	A
	15. Name THREE ways that a crane operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the Operator's Manual be kept and why?
A	
Preparing for work	17. What is the difference between a contract lift and a 'standard' crane hire?
	A
	18. a) Where must the load radius diagram be located and b) what information must it contain?
A	

continued...

Preparing for work continued	19. a) What is meant by the lifting capacity of the crane and b) who determines it?
	A
	20. What are the THREE actions or stages that a crane operator undertakes during pre-use inspections?
	A
	For questions 21 and 22 the Operator’s Manual for the machine being used for the test MUST be available for reference by the candidate
	21. Using the Operator’s Manual or other, state the procedure for changing the number of falls on the hook block.
	A
	22. Using the Operator’s Manual or other, state the maximum wind speed the crane may be operated in.
	A
	23. What prevents the hook block from contacting the jib pulley?
	A
	24. A POTC has been delivered to site, assembled and configured for lifting. What must be carried out before lifting starts and by whom?
	A
	25. Which parts of the crane is the radius (for lifting) measured from?
	A
26. Name TWO advantages of using a POTC over other forms of lifting equipment.	
A	
27. Apart from the operator, who else may need to use the machine’s Operator’s Manual?	
A	
28. What is the purpose of counterweight(s) on the crane?	
A	

continued...

Preparing for work continued	29. 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?
	A
	30. a) What checks should be made to the ground conditions and b) when should the checks be made?
	A
	31. What is the purpose of the flags situated on the jib?
	A
Setting up for work	32. What checks should be made to the transmitter of a remote-controlled POTC before work?
	A
	33. On inclined jib types, what must be undertaken after the jib is inclined?
	A
	34. If assisting in erecting a POTC, why is it important that the manufacturer's procedures are followed precisely?
	A
	35. If a load of 8 tonnes is lifted on 2 falls or lines of rope, what is the tension in each fall or line?
	A
	36. If the legs of a chain sling are more than 90 degrees apart from each other, what happens to the SWL?
	A
	37. What information is needed when estimating the weight of a load?
	A
	38. Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
	A
39. What is the main purpose of the Rated Capacity Indicator (RCI)?	
A	
40. What do the words SWL, as stamped on lifting accessories, signify?	
A	

continued...

Setting up for work continued	41. If setting up to lift loads in a pedestrianised area, what main factor needs to be taken into account?
	A
	42. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when setting up the crane and b) explain why a distance should be kept.
	A
	43. What is meant by centre of gravity, or how is the Centre of Gravity determined, on a load to be lifted?
	A
Working tasks	44. On a busy construction site, if required, how would the slinger/signaller be identified to the crane operator?
	A
	45. The number of falls has been changed on the hook block. How has this action affected the RCI?
	A
	46. The safe working load or working load limit (SWL/WLL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
	A
	47. Name TWO things that happen if the hoist rope is not vertical when lifting a load.
	A
	48. Apart from lifting using the hook, what other type of work can POTCs undertake?
	A
49. What is jib deflection and when does it occur?	
A	
50. If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the crane operator before use?	
A	
51. What would happen if the operator faces the crane whilst using remote control?	
A	

continued...

Working tasks continued	52. Name TWO ways that wet weather can affect lifting operations.
	A
	53. What makes up the total (or gross) weight of a load that is to be lifted?
	A
	54. a) When is a trial lift carried out and b) name THREE checks to be made.
	A
	55. Using the lifting capacity diagram (supplied – Annex A), with a jib length of 33 metres: a) what is the maximum possible lifting capacity in tonnes, b) what is the lifting capacity at 20.0 metres radius using 4 falls of rope and c) what is the difference in maximum lifting capacity between a 2-falls hook block and a 4-falls hook block in 2-falls mode?
	A The Annex will be provided by the Tester at the Test
	56. What effect can a swinging load have on a crane?
	A
	57. 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?
	A
	58. What problems can be created when operating the crane in high-speed drive?
	A
59. Name THREE ways in which wind speed can affect the lifting operation.	
A	
60. If a load is slewed rather quickly, what TWO initial effects does it have on the load whilst slewing?	
A	
61. When slewing with a load, where should the operator be looking?	
A	
62. If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take?	
A	

continued...

Working tasks continue	63. Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted?
	A
	64. 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?
	A
	65. If the hook block inadvertently (accidentally) lands, what course of action should be taken?
	A
	66. 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?
	A
	67. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
Shutdown	68. During a rest break, or leaving the crane for a short period, what action should be taken for the control box?
	A
	69. When would a load require netting?
	A
Shutdown	70. At the end of the shift: a) in what position should jibs and trolleys be left in and b) why?
	A
Shutdown	71. At the end of the shift: a) what THREE security measures should be applied and b) why?
	A

Demolition Plant

A65

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
	A
	5. What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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.
	A
	8. Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a demolition machine?
	A
	11. 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?
	A
	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
	A
	13. Give TWO examples of where The Work at Height Regulations may apply to demolition machine operations.
	A
Preparing for work	14. How can a qualification or card benefit a plant operator?
	A
	15. Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the machine's Operator's Manual be kept and why?
A	
Preparing for work	17. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
	A

continued...

Preparing for work continued	For questions 18 and 19 the Operator’s Manual for the machine being used for the test MUST be available for reference by the candidate
	18. Using the Operator’s Manual, state the figure for setting track tension.
	A
	19. Using the Operator’s Manual, state the cold-starting procedure for the machine.
	A
	20. State the purpose of the check valve(s) located on the boom cylinder rams.
	A
	21. What is the purpose of a roll or ROPS frame?
	A
	22. If checking the oil level using a dipstick, why must gloves be worn?
	A
	23. Name FOUR hydraulically operated attachments that may be used on Demolition.
	A
	24. Apart from the operator, who else may need to use the machine’s Operator’s Manual?
	A
25. What is the purpose of the counterweight of the machine?	
A	
26. On many demolition machines, the slew is restricted. a) What is the normal position for working and b) why is the slew restricted?	
A	
27. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
A	
28. 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?	
A	

continued...

Preparing for work continued	29. 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 and b) what is the minimum age allowed?
	A
	30. When MUST a banksman/signaller be used before moving the machine?
	A
	31. Why must the seat belt be worn, even with the cab door closed?
A	
Setting up for work	32. Give FOUR reasons that may cause the machine to tip over – forwards and/or sideways.
	A
	33. There are five areas within a demolition site. Name THREE of those areas.
	A
	34. Explain ALL visual checks that must be carried out on all types of quick-hitch attachment connecting systems before use.
	A
	35. When using a high reach machine, describe FOUR considerations that must be taken into account when setting up for work.
	A
	36. On high reach machines, what should be considered when positioning the machine for work?
	A
37. On a semi-automatic quick-hitch attaching system: a) what is the purpose of the safety pin and b) what checks MUST be made to the pin before use?	
A	
38. Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?	
A	

continued...

Setting up for work continued	39. Describe ONE physical method of checking that an attachment is fully secured to the quick-hitch coupler prior to work.
	A
	40. 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?
	A
	41. If setting up to demolish in a confined area, name TWO things that should be taken into account before starting.
	A
	42. What particular and specific hazards can affect the stability of the machine when working on old industrial (Brownfield) sites?
	A
	43. If setting up to work close to a pedestrianised area, state THREE factors that need to be taken into account.
	A
	44. The operator is asked to demolish a new structure. State FIVE different requirements that must be considered or implemented before work commences.
	A
	45. Before manually changing any attachment: a) where should the attachment be positioned (in relation to the ground) before removing the final pin and b) why?
	A
46. Before starting work on a new structure, how should the operator familiarise themselves with the work zone?	
A	
47. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when setting up the machine and b) explain why a distance should be kept.	
A	

continued...

Working tasks	48. 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 working and b) explain why.
	A
	49. Why should different materials be segregated during demolishing?
	A
	50. a) Why should the slewing direction be to the left wherever possible and b) explain why.
	A
	51. What are the requirements for creating a raised working platform?
	A
	52. If loading a vehicle with material, in what circumstances can the truck/wagon driver remain in the cab?
	A
	53. a) Give ONE advantage and b) TWO disadvantages of using cameras to monitor the work.
	A
	54. If the structure being demolished has a basement, name two precautions to be taken to ensure the integrity of the floor slab.
	A
	55. Explain the difference between pre-tensioned and post-tensioned members.
	A
56. Name FOUR load bearing structural elements.	
A	
57. 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.	
A	
58. Why should the jaws of a shear be kept downwards if working at height?	
A	

continued...

Working tasks continued	59. Why should linkage pins be checked on a regular basis?
	A
Working tasks continued	60. Explain a possible danger if the machine is demolishing on sloping ground.
	A
Completing work	61. What actions should be taken to a partially demolished structure at the end of a working day?
	A
Completing work	62. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
Shutdown	63. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	64. Many demolition machines 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?
	A
	65. 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.
	A
	66. 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?
A	
Shutdown	67. Why should a machine be re-fuelled at the end of the day?
	A

Compact Crane

A66

Technical Test – Theory

Roles and responsibilities	1. What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	3. List SIX typical subject areas that should be covered in a site induction.
	A
	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
	A
	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	7. 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?
	A
	8. Crane operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

continued...

Roles and responsibilities continued	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. State the functions or job role of the following personnel: a) Appointed Person, b) Crane Supervisor, c) Slinger, d) Signaller
	A
	11. In what situation does a hard hat NOT need to be worn when operating a compact crane?
	A
	12. 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?
	A
	13. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
	A
Preparing for work	14. How can a qualification or card benefit a crane operator?
	A
	15. Name THREE ways that a crane operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the Operator's Manual be kept and why?
	A
	17. What is the difference between a contract lift and a 'standard' crane hire?
A	
Preparing for work	18. a) What is meant by the lifting capacity of the crane and b) who determines it?
	A
	19. What is the purpose of a roll or ROPS frame?
A	

continued...

Preparing for work continued	20. What are the THREE actions or stages that a crane operator undertakes during pre-use inspections?
	A
	For questions 21 and 22 the Operator’s Manual for the machine being used for the test MUST be available for reference by the candidate
	21. Using the Operator’s Manual, state the figure for the tyre pressures or checks to be made to the track belts.
	A
	22. Using the Operator’s Manual, state the cold-starting procedure for the crane.
	A
	23. What prevents the hook block from contacting the jib pulley?
	A
	24. What is meant by the footprint of the crane?
	A
	25. Which parts of the crane is the radius (for lifting) measured from?
	A
	26. If checking the oil level using a dipstick, why must gloves be worn?
	A
	27. Apart from the operator, who else may need to use the machine’s Operator’s Manual?
	A
	28. What is the purpose of counterweight(s) on the crane?
	A
	29. 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?
A	
30. When would a fly jib or extension be fitted and used?	
A	

continued...

Preparing for work continued	31. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	32. What checks should be made to the transmitter of a remote-controlled crane before work?
	A
Travelling and manoeuvring	33. a) What is the minimum distance allowed near open trenches when travelling the crane and b) explain why.
	A
	34. When MUST a banksman or signaller be used before moving a crane?
	A
	35. Why must the seat belt be worn, even with a ROPS frame or cab?
	A
Setting up for work	36. If asked to travel with a suspended load, name FIVE factors that must be taken into account by the operator before moving
	A
	37. a) Which part of the crane applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
	A
	38. If assisting in fitting a fly jib/extension to the crane, why is it important that the manufacturers' procedures are followed precisely?
	A
	39. If a load of 5 tonnes is lifted on 2 falls or lines of rope, what is the tension in each fall or line?
	A
	40. Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
	A

continued...

Setting up for work continued	41. What is the main purpose of the Rated Capacity Indicator (RCI) or Load Moment Indicator (LMI)?
	A
	42. When working in a confined area or space: a) what danger can be present with regards to the counterweight (or rear) of the machine, b) what is the recommended minimum distance and c) what measures must be implemented if the gap is less?
	A
	43. What do the letters SWL signify, as stamped on lifting accessories?
	A
	44. If setting up to lift loads in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	45. a) If fitted, who only can authorise partial outrigger extensions and b) what is the effect on lifting capacity if partially extending the outriggers?
	A
	46. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when setting up the machine and b) explain why a distance should be kept.
	A
	47. On a busy construction site, how would the slinger/signaller be identified to the crane operator?
	A
48. The safe working load (SWL) of a multi-leg chain slings only applies in what TWO conditions or configurations?	
A	
49. What information is needed when estimating the weight of a load?	
A	

Working tasks	50. On hoist rope cranes, the number of falls has been changed on the hook block. How has this action affected the RCI/LMI?
	A
	51. On mobile units, state the possible effect of lifting downhill on a slope.
	A
	52. Give FOUR reasons that may cause the crane to overturn.
	A
	53. If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the crane operator before use?
	A
	54. What makes up the total (or gross) weight of a load that is to be lifted?
	A
	55. Using either chart A, B or C on the lifting capacity diagrams (supplied – Annex A, B or C): 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 metre), b) what is the maximum outreach (to nearest 0.2 metre) and c) on the first stage boom extension, what is the difference in kg when lowering from full raise to horizontal? For chart C – a) what is the maximum working height (to the nearest 0.2 metre), 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?
	A The Annex will be provided by the Tester at the Test
	56. a) When is a trial lift carried out and b) name THREE checks to be made.
	A
57. If the hook block inadvertently (accidentally) lands, what course of action should be taken?	
A	

continued...

Working tasks continued	58. When working in a confined area or space, name THREE dangers that can be present.
	A
	59. 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?
	A
	60. Name THREE ways in which wind speed can affect the lifting operation.
	A
	61. If a load is slewed (or turned) rather quickly, what TWO initial effects does it have on the load whilst slewing?
	A
	62. If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take?
	A
	63. Name TWO things that happen if the hoist rope (or lifting accessories) is (are) not vertical when lifting a load.
	A
	64. 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?
	A
65. As a slewing crane rotates through 360 degrees with a load, what happens to the loading on each outrigger?	
A	
66. What effect can a swinging load have on a crane?	
A	
67. Only one leg of a 4 tonne 2 legged chain sling is being used. What is the maximum load that can be lifted?	
A	

continued...

Working tasks continued	68. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	69. 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?
	A
Completing work	70. Before leaving for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
Shutdown	71. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	72. 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.
	A
	73. If applicable, why should the crane be re-fuelled at the end of the day?
A	