Technical Test - Questions Contents



A02	Crawler Crane
A04	Tower Crane
A05	Dragline
A06	Concrete Pump – Truck Mounted Boom
A09	Forward Tipping Dumper
A10	Excavator 180° below 5 tonnes
A12	Excavator 180° above 5 tonnes
A14	Rough Terrain Forklift–Masted
A15	Forklift Side-loader
A16	Industrial Forklift Truck
A17	Telescopic Handler
A18	Reach Truck
A19	Grader
A20	Hoist
A21	Wheeled Loading Shovel
A22	Tracked Loading Shovel
A23	Skid Steer Loader
A24	Motorised Scraper
A25	Mobile Elevating Work Platform – Scissor
A26	Mobile Elevating Work Platform – Boom
A27	Mobile Elevating Work Platform – Mast Climber
A30	Piling Rig – Tripod
A31	Ride-on Roller
A32	Soil/Landfill Compactor
A33	Agricultural Tractor
A34	Crawler – Tractor/Dozer
A35	Crawler – Tractor/Side Boom
A36	Lorry Loader
A37	Trencher
A39	Skip Handler
A40	Slinger/Signaller



Crawler Crane

A02

Technical Test - Theory

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

	9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	 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 crawler crane? A
ontinuec	12. The operator has to use a new model of crawler crane that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the operator to have?
ilities co	A
Roles and responsibilities continued	13. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
les and I	A
Ro	 Give TWO examples of where The Work at Height Regulations may apply to crawler crane operations.
	A
	15. How can a qualification or card benefit a crane operator?
_	A
	Name THREE ways that a crane operator can contribute in ensuring repeat business with the client or main contractor.
	A

	. Where should the Operator's Manual be kept and why?
Α	
18	. What is the difference between a contract lift and a 'standard' crane hire?
A	
19	. a) What is meant by the lifting capacity of the crane and b) who determines it?
A	
20	. What is the purpose of a roll or ROPS frame?
A	
21	. What are the THREE actions or stages that a crane operator undertakes during pre-use inspections?
A	
Fo	r questions 22 and 23 the Operator's Manual for the machine being used for the tes MUST be available for reference by the candidate
	MUST be available for reference by the candidate
22 A	MUST be available for reference by the candidate
22 A	MUST be available for reference by the candidate Using the Operator's Manual, state the figure for setting the track tension.
22 A 23 A	MUST be available for reference by the candidate Using the Operator's Manual, state the figure for setting the track tension.
22 A 23 A	MUST be available for reference by the candidate Using the Operator's Manual, state the figure for setting the track tension. Using the Operator's Manual, state the cold-starting procedure for the machine.
22 A 23 A 24 A	MUST be available for reference by the candidate Using the Operator's Manual, state the figure for setting the track tension. Using the Operator's Manual, state the cold-starting procedure for the machine.
22 A 23 A 24 A	MUST be available for reference by the candidate Using the Operator's Manual, state the figure for setting the track tension. Using the Operator's Manual, state the cold-starting procedure for the machine. What is the purpose of the hoisting limit switch (also known as the 'chandelier')? A crawler crane has been delivered to site, assembled and configured for lifting. What
22 A 23 A 24 A 25	. Using the Operator's Manual, state the figure for setting the track tension. . Using the Operator's Manual, state the cold-starting procedure for the machine. . What is the purpose of the hoisting limit switch (also known as the 'chandelier')? . A crawler crane has been delivered to site, assembled and configured for lifting. What

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

Travelling and manoeuvring continued	37. Why must the seat belt be worn, even with the cab door closed?
	A
	38. If asked to travel with a suspended load, name FIVE factors that must be taken into account by the operator before moving
	A
	39. a) Which part of the crane applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
	A
	40. If assisting in fitting a fly jib to the crane, why is it important that the manufacturers' procedures are followed precisely?
	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?
Setting up for work	A
dn ɓu	43. What is the main purpose of the Rated Capacity Indicator (RCI)?
Sett	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

Setting up for work continued	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
ting up fo	47. On a busy construction site, how would the slinger/signaller be identified to the crane operator?
Sei	A
	48. The number of falls has been changed on the hook block. How has this action affected the RCI?
	A
	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. Name TWO things that happen if the hoist rope is not vertical when lifting a load.
	A
	51. Give FOUR reasons that may cause the crane to overturn.
	A
asks	
Working tasks	52. 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
	53. What makes up the total (or gross) weight of a load that is to be lifted?
	A
	54. Using the lifting capacity diagram (Annex A): a) what is the maximum lifting capacity and b) what is the lifting capacity in kg at 24 metre radius using a 32 metre boom/jib?
	A

55. How does the rope or line length affect loads swings?
A
56. 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
57. 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
58. If the hook block inadvertently (accidentally) lands, what course of action should be taken?
A
59. Name THREE ways in which wind speed can affect the lifting operation.
A
60. What effect can a swinging load have on a crane?
A
61. If a load is slewed 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. 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. When slewing with a load, where should the operator be looking?
A
65. State the possible effect of lifting downhill on a slope.
A

Technical Test - Theory

Working tasks continued	66. How does the deflection of the boom or jib affect lift?
	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
Completing work	68. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
	69. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
Shutdown	A
	70. The operator has been asked to drive the machine onto a transporter/trailer. a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences.
	A
	71. Why should the crane be re-fuelled at the end of the day?
	A



Tower Crane

A04

Technical Test - Theory

	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
ω.	
bilitie	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
ponsi	A
nd res	
Roles and responsibilities	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

Roles and responsibilities continued	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the crane.	nt
	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 tower crane?	
	4	
	12. The operator has to use a new model of tower crane that they are unfamiliar with. What Regulations (i.e. LOLER 98) and other guidance require the operator to have?	do
	A	
	13. What are the possible outcomes if being prosecuted for not complying with legislation an regulations?	ıd
	A	
	14. What do The Work at Height Regulations require of tower crane operations.	
	A	
	15. How can a qualification or card benefit a crane operator?	
	4	
	 Name THREE ways that a crane operator can contribute in ensuring repeat business wit the client or main contractor. 	:h
	Α	

	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. What is meant by a floor climbing tower crane?
	A
	20. a) What is meant by the lifting capacity of the crane and b) who determines it?
	A
	21. What are the THREE actions or stages that a crane operator undertakes during pre-use inspections?
ork	A
ng tor wa	22. a) Where must the load radius diagram be located and b) what information must it contain?
Preparing for work	A
	23. Using the Operator's Manual or other, state the procedure for changing the number of falls on the hook block.
	A
	24. Using the Operator's Manual or other, state the maximum wind speed the crane may be operated in.
	A
	25. What prevents the hook block from contacting the jib pulley?
	A
	26. 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

27. Why are some tower cranes rail mounted?
A
28. Which parts of the crane is the radius (for lifting) measured from?
A
29. a) In what environments are luffing units commonly used and b) why?
A
30. Apart from the operator, who else may need to use the machine's Operator's Manual?
Α
31. What is the purpose of counterweight(s) on the crane?
Α
32. 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
33. What is meant by a 'cast in' base?
A
34. Name FIVE requirements that must be followed if accessing the end of the jib for maintenance purposes.
A
35. If fitted, what is the purpose of the flags situated on the jib?
A
36. Why should tools and spare components not be left lying on the decks or landings?
A
37. If assisting in erecting a tower crane, why is it important that the manufacturer's procedures are followed precisely?

	38. If a load of 20 tonnes is lifted on 4 falls or lines of rope, what is the tension in each fall or line?
	A
	39. Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
	Α
	40. What is the main purpose of the Rated Capacity Indicator (RCI)?
Setting up for work continued	A
for work	41. If setting up to lift loads near a pedestrianised area, what main factor needs to be taken into account?
dn ɓ	Α
Settin	42. 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
	43. On a busy construction site, how would the slinger/signaller be identified to the crane operator?
	A
	44. The number of falls has been changed on the hook block. How has this action affected the RCI?
	A
	45. 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
sks	46. Apart from lifting using the hook, what other type of work can tower cranes undertake?
Working tasks	A
	47. What is jib deflection and when does it occur?
	A
	48. 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

	49. Name TWO ways that wet weather can affect lifting operations.
	A
	50. What makes up the total (or gross) weight of a load that is to be lifted?
	A
	51. Using the lifting capacity diagrams (Annex A and B): Annex A using a 55 metre jib set-up – a) what is the lifting capacity on tonnes at 34 metres radius and b) what radius can a load weighing 5.80 tonnes be placed at? Annex B using a 45 metre jib set-up – c) what is the lifting capacity in tonnes at 27 metres radius using double falls and d) using a single fall, how far can a load weighing 9.6 tonnes be placed?
	A
	52. 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
panu	53. What effect can a swinging load have on a crane?
contii	A
Working tasks continued	54. 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?
Workir	A
	55. What problems can be created when operating the crane in high-speed drive?
	A
	56. Name THREE ways in which wind speed can affect the lifting operation.
	A
	57. If a load is slewed rather quickly, what TWO initial effects does it have on the load whilst slewing?
	A
	58. When slewing with a load, where should the operator be looking?
	A
	59. If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take?
	A

	60. Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted?
	A
0	61. If the hook block inadvertently (accidentally) lands, what course of action should be taken?
continue	Α
Working tasks continue	62. 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?
Worki	A
	63. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	64. At the end of the shift: a) in what position should luffing jibs be left in and b) why?
	A
	65. At the end of the shift: a) how should cab cleanliness be maintained and b) explain why?
Shutdown	A
Shu	66. a) At the end of the shift: what FOUR security measures should be applied and b) why?
	A



Dragline

A05

Technical Test - Theory

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

	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 dragline?
	A
70	11. The operator has to use a new type of dragline that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
ıtinuec	A
Roles and responsibilities continued	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
qisuoc	A
and resp	 Give TWO examples of where The Work at Height Regulations may apply to dragline operations.
Roles	A
	14. How can a qualification or card benefit a plant operator?
	Α
	 Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the dragline's Operator's Manual be kept and why?
or work	A
Preparing for work	17. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
Pre	A

F	or questions 18 and 19 the Operator's Manual for the machine being used for the t MUST be available for reference by the candidate
18.	Using the Operator's Manual, state the figure for setting track tension.
Α	
19.	Using the Operator's Manual, state the cold-starting procedure for the machine.
Α	
20.	A dragline has been delivered to site, assembled and configured for lifting. What must carried out before lifting starts and by whom?
Α	
21.	Which parts of the dragline is the radius measured from?
Α	
22.	a) How does the number of lines or falls of rope affect the lifting capacity for the draglin and b) how is hoist speed affected when the number of lines (or falls of rope) is reduce
Α	
23.	What function does a fairlead carry out?
Α	
24.	What is the purpose of a roll or ROPS frame?
Α	
25.	If checking the oil level using a dipstick, why must gloves be worn?
Α	
26.	Apart from the operator, who else may need to use the machine's Operator's Manual?
Α	
27.	What is the purpose of the counterweight of the machine?
Α	

ı for nued	28. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
Preparing for work continued	A
	29. 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
Travelling and manoeuvring	30. If the machine has to cross 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?
d manc	A
lling an	31. When MUST a banksman/signaller be used before moving a dragline?
ravel	A
_	32. Why must the seat belt be worn, even with the cab door closed?
	A
	33. What information does the 'dig-envelope' (also known as 'working range') chart give? (Candidates may be shown a copy of a chart)
	A
	34. If setting up to start new workings in a confined area, name TWO things that should be taken into account.
	A
Setting up for work	35. 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?
Setting	A
	36. Give TWO reasons why the operator should have an understanding of the type of spoil being excavated.
	A .

Dragline

	37. How is the bucket adjusted for hard or soft digging?
continued	A
	38. 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?
for worl	Α
Setting up for work continued	39. 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.
	Α
	40. Give FOUR reasons that may cause the machine to tip over – forwards and/or sideways.
	A
	41. Why should different soils be segregated during excavating?
	A
	42. Give THREE reasons why an oversize bucket should not be used when excavating.
	A
tasks	43. a) Why should the slewing direction be to the left wherever possible and b) explain why.
Working tasks	A
	44. Why must dragline operators not begin to load vehicles until the vehicle driver is in a safe place?
	A
	45. Who should determine the maximum load that should be placed into the body of the dump truck?
	A
	46. When would the free fall function be used?

Dragline

	47. Give TWO reasons why, wherever possible, operators should excavate ground in layers.
	A
	48. What is the meaning of this hand signal (being demonstrated by the tester)?
pani	A
Working tasks continued	49. Explain a possible danger if the dragline is lifting a load on sloping ground, even though the load chart indicates that the machine can lift that load?
ing task	A
Workir	50. If a load is slewed rather quickly, what TWO initial effects does it have on the load whilst slewing?
	A
	51. When slewing with a load, where should the operator be looking?
	A
	52. Describe TWO actions to be taken for an open excavation at the end of a working day.
	Α
Completing work	53. Many draglines 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?
npletir	A
Con	54. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
	55. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
Shutdown	A
	56. 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.
တ်	Α

	57. 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?
Shutdown continued	A
wn co	
utdo	
Shi	58. Why should a dragline be re-fuelled at the end of the day?
	A



Truck Mounted Boom

Technical Test - Theory

A06

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



A06

Truck Mounted Boom

Technical Test - Theory

	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 boom concrete pump?
	A
tinued	11. The operator has to use a new type of vehicle that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
con	A
Roles and responsibilities continued	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
odse	A
es and r	 Give TWO examples of where The Work at Height Regulations may apply to boom concrete pump operations.
Role	A
	14. How can a qualification or card benefit a boom concrete pump operator?
	A
	 Name THREE ways that a boom concrete pump 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 are the THREE actions or stages that a boom concrete pump operator undertakes during pre-use inspections?
Preparing for work	A
гераг	18. Using the Operator's Manual, state the tyres' operating pressure.
Δ.	A
	19. Using the Operator's Manual, state TWO maintenance items to be carried out on the boom.
	A



A06

Truck Mounted Boom

Technical Test - Theory

20.	Which parts of the boom concrete pump is the operating radius measured from?
Α	
21.	If checking the oil level using a dipstick, why must gloves be worn?
Α	
22.	Apart from the operator, who else may need to use the machine's Operator's Manual?
Α	
23.	What is the purpose of stabilisers on the boom concrete pump?
Α	
24.	What is the purpose of the blanking piece?
Α	
25.	What are the main component parts of a concrete mix?
Α	
26.	What is the difference between: a) a placement hose and b) a delivery hose?
Α	
27.	What FIVE types of information would a client need from pump hirer/owner before a hi
Α	
28.	What checks should be made to the transmitter of a remote-controlled pump before wo
Α	
29.	a) What is meant by a knuckle-boom and b) what is an advantage of this type of arrangement?
Α	
30.	What is the function, if fitted, of the mixer paddles?
Α	
	On a piston type pump, what is the purpose of the water bow?



A06

Truck Mounted Boom

Technical Test - Theory

[
	32. Why must the thickness of steel pipelines be checked on a regular basis?
' work	A
Preparing for work continued	33. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
Prep	A
	34. Prior to travelling the machine on the public highway, describe THREE items to be taken into account when planning a route.
	A
	35. If the boom concrete pump vehicle is being travelled 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?
oeuvring	A
Travelling and manoeuvring	36. a) What is the minimum distance allowed near open trenches when travelling the boom concrete pump on site and b) explain why.
avelling a	A
Ė	37. On many construction sites, when MUST a banksman or signaller be used before moving a boom concrete pump?
	A
	38. Give THREE possible reasons why concrete pump vehicles should not stray off the designated access routes.
	A
	39. a) Which part of the boom concrete pump applies loading or pressure to the ground and b) how can that pressure be reduced?
for work	A
Setting up for work	40. If setting up to pump concrete in a pedestrianised area, state THREE factors that need to be taken into account.
Š	A
Ll	



A06

Truck Mounted Boom

Technical Test - Theory

	41. a) Who can authorise partial stabiliser extensions and b) what is the effect on lifting capacity if partially extending the outriggers?
	A
	42. What is the purpose of pumping grout through the pipeline?
	A
	43. When setting up to work, what should be taken into account for the mixer vehicles?
	A
	44. On what basis are pipelines and couplers selected?
	A.
	45. Name THREE possible underground hazards which may affect the stability of the vehicle when in operation.
ontinued	A
Setting up for work continued	46. If using a boom concrete pump from a fixed position operating station, what should be ensured for the safety of the operator?
	A
Š	47. What checks should be made to the couplers?
	A
	48. 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
	49. If setting up to work near a bank, what is the recommended minimum distance between the stabilisers and the top of the bank?
	A
	50. What can occur if the placement hose is longer than specified?
	A



A06

Truck Mounted Boom

Technical Test - Theory

pen	51. What is the purpose of using axle locks?
contin	A
Setting up for work continued	52. 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.
Setting	A
	53. Give THREE reasons that may cause the boom concrete pump to overturn.
	A
	54. If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the boom concrete pump operator before use?
	A
	55. 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?
tasks	A
Working tasks	56. Describe at least TWO causes of blockages that may occur within the pipeline.
Wo	A
	57. During pumping, if the operator (using a remote control) needs to leave the pump, what needs to be ensured?
	A
	58. a) What is considered as the danger zone around the placement hose and b) what is regarded as the safe minimum?
	A
	59. Name TWO ways in which wind speed can affect the pumping operation.
	A



A06

Truck Mounted Boom

Technical Test - Theory

penu	60. If the words STOP NOW are given to the boom concrete pump operator by radio during the lift, what action must the operator take?
	A
contil	61. What is the meaning of this hand signal (being demonstrated by the Tester)?
tasks	A
Working tasks continued	62. A boom concrete pump is working in the same vicinity that encroaches the operating radius of a crane. What actions would need to be taken?
	A
leting rk	63. Before leaving the vehicle for a rest break, after parking and switching off the vehicle, what final action must be carried out?
Completing work	A
	64. Name THREE places where the machine should NOT be parked after completion of the pumping operation.
	A
	65. When is it acceptable to use compressed air to clean out pipelines?
	A
	66. Before cleaning a pipeline with compressed air, what must be removed from the line itself?
down	A
Shutdown	67. What is the maximum allowable air pressure to clean out the pipes?
	A
	68. Where must waste from the cleaning process be deposited?
	A
	69. Before rejoining the public highway after completing work, what check must be made to the stabilisers?
	A



Forward Tipping Dumper

A09

Technical Test - Theory

1.	What is the definition of, or how can a hazard be described?
А	
2.	What is the purpose of a risk assessment?
А	
3.	List SIX typical subject areas that should be covered in a site induction.
А	
seilities 4.	What THREE duties of the Health and Safety at Work Act must employees follow?
Roles and responsibilities 4. A 5.	
and re	
Soles 5.	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
А	
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 sanctions that can be applied to plant operators who do not comply with, or follow legislation and regulations?
Α	
8.	Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
Α	

	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 forward tipping dumper?
	A
tinued	11. The operator has to use a new type of dumper i.e. swivel skip that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
Roles and responsibilities continued	A
l responsi	12. What are the possible outcomes of being prosecuted for not complying with legislation and regulations?
Roles and	A
1	13. What is a dumper operator's main purpose or requirement?
	A
	14. How can a qualification or card benefit a plant operator?
	A
	 Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the dumper's Operator's Manual be kept and why?
×	A
or wor	17. When would the skip safety strut or support be used?
ing fc	A
Preparing for work	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
	A

	19. What is a possible consequence of using a tyre with a deep cut in the sidewall?
	A
	20. What is the purpose of a roll or ROPS frame?
	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 machines, what specific checks must be made to the track belt?
	A
	22. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
ntinued	23. On articulated dumpers, steering is achieved by actuating a hydraulic ram 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?
r work co	A
Preparing for work continued	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. A dumper is classified by a manufacturer as a 6 tonne dumper. What does this mean?
	A
	27. Most site dumpers have the engine at the rear. State the main reason for this.
	A
	28. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A

	29.	Most forward tipping dumpers have an articulated chassis that swivels or pivots in the centre. One pivot plane or angle (looking from the top) provides the steering (articulation): what is the function of the other pivot plane or angle i.e. looking from the front (oscillation)?
	Α	
	30.	Give FOUR reasons that may cause the dumper to tip over sideways during travel.
Travelling and manoeuvring	A	
	31.	a) What is the minimum distance allowed near open trenches when travelling with a dumper and b) explain why?
	A	
	32.	Why must the seat belt be worn at all times?
	Α	
	33.	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?
	Α	
	34.	When travelling on wet clay, what effect does this have on the dumper?
	Α	
	35.	Manufacturers must give recommendations on how to travel a dumper up and down inclines. If this information is not known first hand, what is the general rule about travelling up and down slopes?
	Α	
	36.	How is it possible that dumpers, even when travelling on gentle gradients, are not overloaded and not being driven at excessive speed, can still tip over?
	Α	
	37.	a) Name THREE purposes of the raised lugs on tyres and b) what can happen to a dumper if the lugs are severely worn?
	A	

38. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
A
39. Whenever possible, who should decide the positioning of the dumper when being loaded?
A
40. 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
41. Give TWO reasons for using a swivel skip dumper over a conventional forward tipping skip.
A
42. What problems and hazards can soft ground cause to a loaded dumper?
A
43. Give TWO reasons why the dumper operator should have an understanding of the type of spoil being transported.
A
44. When working in a confined area or space what danger can be present with an articulated dumper with regards to steering?
A
45. Name: a) TWO precautions and b) TWO operating procedures that should be taken when discharging loads on the move.
A

	46. When working in a confined area or space, name THREE hazards that can occur.
	Α
	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. Why do high tip dumpers need particular care when tipping?
	A
	49. Who should determine the maximum load that should be placed into the skip of the dumper?
	A
inued	State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
tasks cont	A
Working tasks continued	51. When forward tipping a load, the centre of gravity of the machine changes. a) What effect does this have on the dumper 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?
	A
	53. Operators should lower the skip fully before driving away. Give TWO possible consequences if this is not carried out.
	A
	54. Name THREE actions to be taken before transporting wide loads.
	Α

Technical Test - Theory

Working tasks continued	55. Name THREE problems that could occur if the skip is overloaded with a dense material.
	A
	56. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	57. Larger dumpers use 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?
Completing work	A
Complet	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 dumper should NOT be parked.
	A
	60. Why should a dumper be re-fuelled at the end of the day?
Shutdown	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



A10

Below 5 tonnes

Technical Test - Theory

	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
S	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
Roles and responsibilities	A
les and re	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
R	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



A10

Below 5 tonnes

Technical Test - Theory

	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 180 excavator?
	A
peni	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?
contin	A
nsibilities	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
Roles and responsibilities continued	A
Roles	13. Give TWO examples of where The Work at Height Regulations may apply to 180 excavator operations.
	A
	14. How can a qualification or card benefit a plant operator?
	A
	 Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the excavator's Operator's Manual be kept and why?
or work	A
Preparing for work	17. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
ā	A



A10

Below 5 tonnes

Technical Test - Theory

	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 tyres' operating pressure.
	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?
inued	A
rk cont	21. Apart from the operator, who else may need to use the machine's Operator's Manual?
r wo	A
ng fo	22. What is a possible consequence of using a tyre with a deep cut in the sidewall?
Preparing for work continued	A
	23. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	Α
	24. Mini 180 excavators may be equipped with a (front) clamshell bucket. Name FOUR possible functions (excluding the forks).
	A
	25. What is the purpose of a roll or ROPS frame?
	A
K	26. a) Name THREE purposes of the raised lugs on tyres and b) what can happen to an excavator if the lugs are severely worn?
Travelling and manoeuvring	A
	27. If the excavator 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?
F	A



A10

Below 5 tonnes

Technical Test - Theory

	28. An operator has been asked to transport a load in the front bucket down a small section of the public highway, for which The Road Traffic Act applies. What effect does this have on operations?
tinued	A
ng con	29. When travelling, why should the rear boom be locked?
euvrir	A
mano	30. Why must the seat belt be worn, even with the cab door closed?
Travelling and manoeuvring continued	A
Trav	31. a) What is the minimum distance allowed near open trenches when travelling with a loaded front bucket and b) explain why.
	A
	32. What information does the 'dig-envelope' (also known as 'working range') chart give? (Candidates may be shown a copy of a chart)
	A
	33. Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.
*	A
p for work	34. 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?
Setting up	A
	35. Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?
	Α
	36. Describe ONE physical method of checking that a bucket is fully secured to the quick-hitch coupler prior to work.
	A



A10

Below 5 tonnes

Technical Test - Theory

	37.	On stabiliser-equipped machines, what must be checked before the stabilisers are lowered?
	A	
	38.	If setting up to excavate in a confined area, name TWO things that should be taken into account before starting.
	Α	
	39.	What is regarded as the most productive position for a dumper to be in when being loaded with a 180 excavator working from a stockpile?
	Α	
	40.	Name TWO types of equipment used to ensure that excavation levels, measurements and positions are to the required specification.
	Α	
þ	41.	What particular and specific hazards can affect the stability of the machine when working on old industrial (Brownfield) sites?
ntinue	Α	
Setting up for work continued	42.	If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
up for	Α	
Setting	43.	The operator is asked to excavate a new trench. State FIVE different requirements that must be considered or implemented before work commences.
	Α	
	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?
	Α	
	45.	With regards to lifting accessories, irrespective of who supplied the accessories, what THREE factors should be ensured before the accessories are used?
	Α	
	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 to excavate and b) explain why a distance should be kept.
	Α	



A10

Below 5 tonnes

Technical Test - Theory

	47. If a trench has a depth of 1.0 metre: a) what is the minimum distance to maintain from the edge of the trench when placing spoil and b) explain why.
	Α
	48. Why should different soils be segregated during excavating?
	A
	 Give THREE reasons why an oversize bucket should not be used when excavating trenches to specification.
	A
	50. If fitted, describe ONE application when the hand throttle can safely be used.
	A
	51. Give FOUR reasons that may cause the excavator to tip over sideways.
	A
Ŋ	
task	
Working tasks	52. Why must excavator operators not begin to load vehicles until the forward tipping dumper driver is clear of their machine?
	A
	53. What makes up the total (or gross) weight of a load that is to be lifted'?
	A
	54. What factors determine the shoring requirements of a trench?
	Α
	55. Give TWO reasons why, wherever possible, operators should excavate ground in layers.
	A
	56. If a yellow coloured marker tape is unearthed during excavating, which two types of services could this indicate?
	A
	57. What is the nearest distance allowed to gas pipes when excavating with the machine?
	A



A10

Below 5 tonnes

Technical Test - Theory

	58. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	59. The operator is asked to tip material into a trench. State FIVE different requirements that must be considered or implemented before tipping commences.
	A
	60. If loading a dumper, who should determine the maximum load that should be placed into the body?
ed	A
s continue	61. 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.
Working tasks continued	A
	62. Before lowering into or moving a pipe into a trench, what trench-related checks must be made?
	A
	63. If a load is lifted using the backhoe unit that is inline with the machine, when slewing the load fully to the left or right, the machine can become unstable. Explain why.
	A
	64. If the excavator is carrying out deep excavating work using the full working range, what hazard may occur?
	A
	65. Describe TWO actions to be taken for an open trench at the end of a working day.
g work	A
Completing work	66. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
)	A



A10

Below 5 tonnes

Technical Test - Theory

	67. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
,	A
	68. 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	69. If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?
	A
	70. Why should an excavator be re-fuelled at the end of the day?
	A
	71. After shutting down the engine, why should the hydraulic operating levers be cycled?
	A



Above 5 tonnes

A12

Technical Test - Theory

	1.	What is the definition of, or how can a hazard be described?
Roles and responsibilities	Α	
	2.	What is the purpose of a risk assessment?
	Α	
	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?
	Α	
les and re		What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
S S	Α	
	6.	a) What is the purpose of a Method Statement and b) what is required of the operator?
	Α	
		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	

	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 180 excavator?
	A
inued	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?
s cont	A
Roles and responsibilities continued	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
d resp	A
Roles and	 Give TWO examples of where The Work at Height Regulations may apply to 180 excavator operations.
	A
	14. How can a qualification or card benefit a plant operator?
	A
	 Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the excavator's Operator's Manual be kept and why?
Preparing for work	A
	17. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
Ą	A

	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 tyres' operating pressure.
	A
	19. Using the Operator's Manual, state the cold-starting procedure for the machine.
	Α
	20. If checking the oil level using a dipstick, why must gloves be worn?
pə	A
ontin	21. Apart from the operator, who else may need to use the machine's Operator's Manual?
vork o	A
for w	22. What is a possible consequence of using a tyre with a deep cut in the sidewall?
Preparing for work continued	A
	23. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	24. Name FOUR possible functions of a multi-purpose clamshell bucket (excluding the forks).
	A
	25. What is the purpose of a roll or ROPS frame?
	A
Travelling and manoeuvring	26. a) Name THREE purposes of the raised lugs on tyres and b) what can happen to an excavator if the lugs are severely worn?
	A
	27. If the excavator 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?
F	A

pən	28. An operator has been asked to transport a load in the front bucket down a small section of the public highway, for which The Road Traffic Act applies. What effect does this have on operations?
	A
	29. When travelling, why should the rear boom and extending dipper (if fitted) be locked?
contir	A
/ring (30. Why must the seat belt be worn, even with the cab door closed?
Travelling and manoeuvring continued	A
velling an	31. a) What is the minimum distance allowed near open trenches when travelling with a loaded front bucket and b) explain why.
Tra	A
	32. a) When should 4-wheel drive not be selected and b) explain why?
	A
	33. Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.
	A
논	34. 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?
Setting up for work	A
Settin	35. Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?
	Α
	36. Describe ONE physical method of checking that a bucket is fully secured to the quick-hitch coupler prior to work.
	A

	37. On stabiliser-equipped machines, what must be checked before the stabilisers are lowered?
	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 is regarded as the most productive position for the dump truck or tipper to be in when being loaded with a 180 excavator working from a stockpile?
	A
	40. Name TWO types of equipment used to ensure that excavation levels, measurements and positions are to the required specification.
pe	A
continue	41. What particular and specific hazards can affect the stability of the machine when working on old industrial (Brownfield) sites?
or worl	A
Setting up for work continued	 If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	43. The operator is asked to excavate a new trench. State FIVE different requirements that must be considered or implemented before work commences.
	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
	45. 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	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.
Setting work of	A
	47. 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
	48. Why should different soils be segregated during excavating?
	A
	49. Give THREE reasons why an oversize bucket should not be used when excavating trenches to specification.
	A
	50. If fitted, describe ONE application when the hand throttle can safely be used.
	A
	51. Give FOUR reasons that may cause the excavator to tip over sideways.
sks	A
Working tasks	52. Why must excavator operators not begin to load vehicles until the forward tipping dumper driver is clear of their machine?
>	A
	53. What makes up the total (or gross) weight of a load that is to be lifted'?
	A
	54. What factors determine the shoring requirements of a trench?
	A
	55. Give TWO reasons why, wherever possible, operators should excavate ground in layers.
	A
	56. If a yellow coloured marker tape is unearthed during excavating, which two types of services could this indicate?
	A

	57. What is the nearest distance allowed to gas pipes when excavating with the machine?
	A
	58. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	59. The operator is asked to tip material into a trench. State FIVE different requirements that must be considered or implemented before tipping commences.
	A
	60. If loading a tipper vehicle, who should determine the maximum load that should be placed into the body?
pen	A
Working tasks continued	61. 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
M	62. If using the forks to lift loads, what machine-related information is needed?
	A
	63. Before lowering into or moving a pipe into a trench, what trench-related checks must be made?
	A
	64. If a load is lifted using the backhoe unit that is inline with the machine, when slewing the load fully to the left or right, the machine can become unstable. Explain why.
	A
	65. If the excavator is carrying out deep excavating work using the full working range, what hazard may occur?
	A

	66. Describe TWO actions to be taken for an open trench at the end of a working day.
g work	A
Completing work	67. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
	68. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	69. 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.
C	A
Shutdown	70. 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
	71. Why should an excavator be re-fuelled at the end of the day?
	A
	72. After shutting down the engine, why should the hydraulic operating levers be cycled?
	A



Rough Terrain Forklift

A14

Masted

Technical Test - Theory

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

	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 forklift?
ס	A
continue	11. The operator has to use a new type of forklift that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
bilities	A
responsi	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
Roles and responsibilities continued	A
Œ.	13. How can a qualification or card benefit a plant operator?
	A
	 Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	15. a) What is meant by the lifting capacity of the forklift and b) who determines it?
	A
Preparing for work	16. Where should the Operator's Manual be kept and why?
	A
	17. Forklift operations fall within the scope of the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998. Name TWO requirements of the act with regards to lifting.
	A

Masted

	18. What is the purpose of a roll or ROPS frame?
	A
	19. What are the THREE actions or stages that a forklift operator undertakes during pre-use inspections?
	A
	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 the tyre pressures.
	A
Preparing for work continued	21. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	22. State FOUR checks that should be made to the forks.
	A
	23. Explain THREE checks that should be made to the mast lift chains.
	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 the counterweight of the machine?
	A

Masted

	27. What is a possible consequence of using a tyre with a deep cut in the sidewall?
	A
	28. Compared to a duplex (double) mast: a) why would a triplex mast be fitted/used and b) what disadvantage does the mast have over the duplex?
	A
penu	29. As a lifting machine, the forklift must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
ork conti	A
Preparing for work continued	30. Before manually changing any attachment: a) where should the attachment be positioned (in relation to the ground) and b) why?
Prepa	A
	31. What THREE items must be printed on a forklift's rating plate?
	A
	32. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	33. a) Name THREE purposes of the raised lugs on tyres and b) what can happen to a forklift if the lugs are severely worn?
Travelling and manoeuvring	A
	34. If the forklift 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
	35. Name THREE conditions that mirrors must be in, on the machine.
	A

Rough Terrain Forklift

Technical Test - Theory

Masted

	36. Name SIX possible proximity hazards that may be encountered on site when travelling with a load.
	A
	37. Why must the seat belt be worn, even with the cab door closed?
	A
	38. a) What is the minimum distance allowed near open trenches when travelling with a forklift and b) explain why.
	A
	39. A manufacturer must give recommendations on how to travel a forklift up and down inclines. If this information is not known first hand, what is the general rule about travelling up and down slopes?
	A
inued	40. When working in a confined area or space, name THREE dangers that can be present.
Travelling and manoeuvring continued	A
anoeuvr	41. How is it possible that forklifts can still tip over, even when travelling on gentle gradients, are not overloaded and not being driven at excessive speed?
g and m	A
vellinę	42. What problems and hazards can soft ground cause to a loaded forklift?
Tra	A
	43. An operator has to travel a forklift on the public highway, for which The Road Traffic Act applies. List SIX requirements that must be followed
	A
	44. Before travelling with a physically large load, name FIVE factors that must be taken into account by the operator before moving.
	A
	45. 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

	46. a) What is meant by the load centre and b) why must it be known for each lift?
	A
	47. If the load centre of the load is longer (increased) than stipulated for the model of forklift, what effect does it have on the lifting capacity of the machine?
	A
	48. Before picking up a load, why should the forks be equally spaced or distanced on the carriage?
	A
	49. Which parts of the forklift is the load centre usually measured from?
	A
	50. Name FOUR factors to consider and know before picking up a load.
Setting up for work	A
etting up	 If setting up to lift and move loads in a pedestrianised area, state THREE factors that need to be taken into account.
o)	A
	52. 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
	53. Name TWO factors that determine the weight of a load.
	A
	54. What are FOUR safety checks that should be made before loading or unloading a suitable vehicle?
	A
asks	55. Give THREE reasons why it is important that a forklift is not leaning sideways before attempting to lift or place a load.
Working tasks	A

Masted

	56.	When placing onto or lifting a load from a loading out tower: a) why must the forklift's handbrake be on and the transmission in neutral and b) what would be the consequences if this was not done?
	A	
	57.	Give FOUR reasons that may cause the forklift to tip over sideways.
	Α	
	58.	Give FOUR reasons that may cause the machine to tip forwards.
	Α	
	59.	Before loading an uncoupled trailer, what THREE precautions must be taken?
_	A	
ontinued	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 forklift operations?
Working tasks continued	Α	
Worl	61.	What should be known about the loading out tower before placing loads?
	Α	
	62.	Name FOUR ways that wet weather can affect forklift operations.
	A	
	63.	If placing a variety of loads onto a rigid, flatbed transporter, where should the heaviest loads be placed?
	Α	
	64.	What is the meaning of this hand signal (being demonstrated by the Tester)?
	Α	
	65.	State the possible effect of lifting downhill on a slope.
	Α	
	66.	After placing a load, who is responsible for ensuring the load is safe?
	Α	
	_	

Masted

Shutdown	67. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
	68. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	69. 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
	70. 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
	71. Why should the forklift be re-fuelled at the end of the day?
	A



Forklift Side-loader

A15

Technical Test - Theory

	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
nsibilities	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
Roles and responsibilities	A
Ŗ	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
	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. Forklift operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

	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 forklift?
per	A
Roles and responsibilities continued	11. The operator has to use a new type of forklift that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
nsibiliti	A
nd respon	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
Roles ar	A
	13. How can a qualification or card benefit a plant operator?
	A
	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	15. a) What is meant by the lifting capacity of the forklift and b) who determines it?
	A
vork	16. Where should the Operator's Manual be kept and why?
Preparing for work	A
Prepa	17. Forklift operations fall within the scope of the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998. Name TWO requirements of the act with regards to lifting.
	A

	8. What is the purpose of a roll or ROPS frame?
	9. What are the THREE actions or stages that a forklift operator undertakes during pre-use inspections?
_	State FOUR checks that should be made to the forks.
	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
	1. Using the Operator's Manual, state the procedure for greasing the mast components.
pen	
contin	2. Using the Operator's Manual, state the cold-starting procedure for the machine.
Preparing for work continued	
ring fc	3. Explain THREE checks that should be made to the mast lift chains.
Prepar	
-	4. If checking the oil level using a dipstick, why must gloves be worn?
	5. Apart from the operator, who else may need to use the machine's Operator's Manual?
	6. What is a possible consequence of using a pneumatic tyre with a deep cut in the sidewall?
	7. Compared to a duplex (double) mast: a) why would a triplex mast be fitted/used and b) what disadvantage does the mast have over the duplex?

	28. As a lifting machine, the forklift must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
Preparing for work continued	A
	29. What THREE items must be printed on a forklift's rating plate?
g for v	A
Preparin	30. On an IC engine forklift, during work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	31. If the forklift is being travelled or working 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
	32. Name THREE conditions that mirrors must be in, on the machine.
	A
	33. Name SIX possible proximity hazards that may be encountered on site when travelling with a load.
and manoeuvring	A
nd ma	34. Why must the seat belt be worn, even though a ROPS frame is fitted?
Travelling a	A
	35. a) What is the minimum distance allowed near open trenches when travelling with a forklift and b) explain why.
	A
	36. A manufacturer must give recommendations on how to travel a forklift up and down slopes. If this information is not known first hand, what is the general rule about travelling up and down slopes?
	A

	37. What is the best method of driving the forklift across humps, drainage gullies etc?
70	A
	38. When working in a confined area or space, name THREE dangers that can be present.
	A
	39. How is it possible that forklifts can still tip over, even when travelling on gentle gradients, are not overloaded and not being driven at excessive speed?
continue	A
uvring	40. What problems and hazards can soft ground cause to a loaded forklift?
nanoeı	A
Travelling and manoeuvring continued	41. Before travelling with a physically large load, name FIVE factors that must be taken into account by the operator before moving.
Travelli	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. a) What is meant by the load centre and b) why must it be known for each lift?
	A
논	44. If the load centre of the load is longer (increased) than stipulated for the model of forklift, what effect does it have on the lifting capacity of the machine?
Setting up for work	A
	45. Before picking up a load, why should the forks be equally spaced or distanced on the carriage?
	A
	46. Which parts of the forklift is the load centre usually measured from?
	A

	47. Name FOUR factors to consider and know before picking up a load.
	A
	49. Pefere travelling with a load, where should the lead be positioned?
	48. Before travelling with a load, where should the load be positioned?
	A
ъ	49. If setting up to lift and move loads in a pedestrianised area, state THREE factors that need to be taken into account.
continue	A
Setting up for work continued	50. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden pylons when tipping loads and b) explain why a distance should be kept.
setting u	A
O)	51. Name TWO factors that determine the weight of a load.
	Α
	52. What are FOUR safety checks that should be made before loading or unloading a suitable vehicle?
	A
	53. Give THREE reasons why it is important that a forklift is not leaning before attempting to lift or place a load.
Working tasks	A
	54. When placing onto or lifting a load from a loading out tower or rack: a) why must the forklift's handbrake be on and the transmission in neutral and b) what would be the consequences if this was not done?
	A
Worl	55. Give FOUR reasons that may cause the forklift to tip over.
	A
	56. Before loading an uncoupled trailer, what THREE precautions must be taken?
	A

	57. 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 forklift operations?
	A
	58. What should be known about the loading out tower or racking before placing loads?
	A
ס	59. Name FOUR ways that wet weather can affect forklift operations.
Working tasks continued	A
king task	60. If placing a variety of loads onto a rigid, flatbed transporter, where should the heaviest loads be placed?
8 N	A
	61. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	62. State the possible effect of lifting downhill on a slope.
	A
	63. After placing a load, who is responsible for ensuring the load is safe?
	A
	64. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
Shutdown	A
	65. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	66. 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
	67. Why should the diesel-engined forklift be re-fuelled at the end of the day?
	A



Industrial Forklift Truck

A16

Technical Test - Theory

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

	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 forklift?
	A
ontinued	11. The operator has to use a new type of forklift that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
sibilities c	A
Roles and responsibilities continued	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
Roles ar	A
	13. How can a qualification or card benefit a plant operator?
	A
	 Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	15. a) What is meant by the lifting or rated capacity of the forklift and b) who determines it?
	A
r work	16. Where should the Operator's Manual be kept and why?
Preparing for work	A
Prep	17. Forklift operations fall within the scope of the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998. Name TWO requirements of the act with regards to lifting.
	A

18.	What is the purpose of a roll or ROPS frame?
A	
19.	What are the THREE actions or stages that a forklift operator undertakes during pre-use inspections?
A	
	Otata FOUR also also that also yield be used to the forder
\vdash	State FOUR checks that should be made to the forks.
A	
21.	Using the Operator's Manual, state the procedure for greasing the mast components.
A	
22.	Using the Operator's Manual, state the cold-starting procedure for the machine.
Α	
23.	Explain THREE checks that should be made to the mast lift chains.
Α	
24.	If checking the oil level using a dipstick, why must gloves be worn?
Α	
25.	Apart from the operator, who else may need to use the machine's Operator's Manual?
A	
26.	What is the purpose of the counterweight of the machine?
Α	

	27. What is a possible consequence of using a pneumatic tyre with a deep cut in the sidewall?
	A
	28. Compared to a duplex (double) mast: a) why would a triplex mast be fitted/used and b) what disadvantage does the mast have over the duplex?
	A
	29. a) What THREE checks would be made specifically to the batteries and b) what specific PPE would be worn?
	A
Preparing for work continued	30. As a lifting machine, the forklift must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
for work	A
eparing	31. Before manually changing any attachment: a) where should the attachment be positioned (in relation to the ground) and b) why?
Pag	A
	32. What THREE items must be printed on a forklift's rating plate?
	A
	33. If changing an LPG cylinder, state THREE specific precautions to be observed.
	A
	34. On an IC engine forklift, during work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
and uvring	35. If the forklift is being travelled or working 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?
Travelling and manoeuvring	A

36. Name THREE conditions that mirrors must be in, on the machine. A 37. Why must the seat belt be worn, even though a ROPS frame is fitted? A 38. a) What is the minimum distance allowed near open trenches when travelling wit and b) explain why. A 39. A manufacturer must give recommendations on how to travel a forklift up and dor if this information is not known first hand, what is the general rule about travelling down slopes? A 40. What is the best method of driving the forklift across humps, drainage gullies etc? A 41. When working in a confined area or space, name THREE dangers that can be proposed. The proposed area not overloaded and not being driven at excessive speed? A 43. What problems and hazards can soft ground cause to a loaded forklift? A	
37. Why must the seat belt be worn, even though a ROPS frame is fitted? A 38. a) What is the minimum distance allowed near open trenches when travelling wite and b) explain why. A 39. A manufacturer must give recommendations on how to travel a forklift up and down if this information is not known first hand, what is the general rule about travelling down slopes? A 40. What is the best method of driving the forklift across humps, drainage gullies etc? A 41. When working in a confined area or space, name THREE dangers that can be proposed. The proposed area not overloaded and not being driven at excessive speed? A 43. What problems and hazards can soft ground cause to a loaded forklift?	
A 38. a) What is the minimum distance allowed near open trenches when travelling with and b) explain why. A 39. A manufacturer must give recommendations on how to travel a forklift up and down strained in this information is not known first hand, what is the general rule about travelling down slopes? A 40. What is the best method of driving the forklift across humps, drainage gullies etc? A 41. When working in a confined area or space, name THREE dangers that can be properly are not overloaded and not being driven at excessive speed? A 43. What problems and hazards can soft ground cause to a loaded forklift?	
38. a) What is the minimum distance allowed near open trenches when travelling wit and b) explain why. A 39. A manufacturer must give recommendations on how to travel a forklift up and do If this information is not known first hand, what is the general rule about travelling down slopes? A 40. What is the best method of driving the forklift across humps, drainage gullies etc? A 41. When working in a confined area or space, name THREE dangers that can be properties. A 42. How is it possible that forklifts can still tip over, even when travelling on gentle grare not overloaded and not being driven at excessive speed? A 43. What problems and hazards can soft ground cause to a loaded forklift?	
and b) explain why. A 39. A manufacturer must give recommendations on how to travel a forklift up and do If this information is not known first hand, what is the general rule about travelling down slopes? A 40. What is the best method of driving the forklift across humps, drainage gullies etc? A 41. When working in a confined area or space, name THREE dangers that can be proceeded. 42. How is it possible that forklifts can still tip over, even when travelling on gentle grare not overloaded and not being driven at excessive speed? A 43. What problems and hazards can soft ground cause to a loaded forklift?	
39. A manufacturer must give recommendations on how to travel a forklift up and do if this information is not known first hand, what is the general rule about travelling down slopes? A 40. What is the best method of driving the forklift across humps, drainage gullies etc? A 41. When working in a confined area or space, name THREE dangers that can be properties. A 42. How is it possible that forklifts can still tip over, even when travelling on gentle grare not overloaded and not being driven at excessive speed? A 43. What problems and hazards can soft ground cause to a loaded forklift?	h a forl
If this information is not known first hand, what is the general rule about travelling down slopes? A 40. What is the best method of driving the forklift across humps, drainage gullies etc? A 41. When working in a confined area or space, name THREE dangers that can be proceeded. 42. How is it possible that forklifts can still tip over, even when travelling on gentle grare not overloaded and not being driven at excessive speed? A 43. What problems and hazards can soft ground cause to a loaded forklift?	
 40. What is the best method of driving the forklift across humps, drainage gullies etc? A 41. When working in a confined area or space, name THREE dangers that can be precised. A 42. How is it possible that forklifts can still tip over, even when travelling on gentle grare not overloaded and not being driven at excessive speed? A 43. What problems and hazards can soft ground cause to a loaded forklift? 	
A 41. When working in a confined area or space, name THREE dangers that can be properties. 42. How is it possible that forklifts can still tip over, even when travelling on gentle grare not overloaded and not being driven at excessive speed? A 43. What problems and hazards can soft ground cause to a loaded forklift?	
41. When working in a confined area or space, name THREE dangers that can be proceed. 42. How is it possible that forklifts can still tip over, even when travelling on gentle grare not overloaded and not being driven at excessive speed? A 43. What problems and hazards can soft ground cause to a loaded forklift?	
 A 42. How is it possible that forklifts can still tip over, even when travelling on gentle grare not overloaded and not being driven at excessive speed? A 43. What problems and hazards can soft ground cause to a loaded forklift? 	
 42. How is it possible that forklifts can still tip over, even when travelling on gentle grare not overloaded and not being driven at excessive speed? A 43. What problems and hazards can soft ground cause to a loaded forklift? 	esent.
A 43. What problems and hazards can soft ground cause to a loaded forklift?	
43. What problems and hazards can soft ground cause to a loaded forklift?	adients
•	
A	
44. Before travelling with a physically large load, name FIVE factors that must be tak account by the operator before moving.	en into
A	
45. When working in a confined area or space: a) what danger can be present with rethe counterweight or rear of the machine, b) what is the recommended minimum and c) what measures must be implemented if the gap is less?	
A	

	46. a) What is meant by the load centre and b) why must it be known for each lift?
	A
	47. If the load centre of the load is longer (increased) than stipulated for the model of forklift, what effect does it have on the lifting capacity of the machine?
	A
	48. Before picking up a load, why should the forks be equally spaced or distanced on the carriage?
	A
	49. Which parts of the forklift is the load centre usually measured from?
	A
	50. Name FOUR factors to consider and know before picking up a load.
	A
Setting up for work	51. If fitting an attachment (e.g. a drum clamp), why would a forklift need to be de-rated?
	A
	52. If setting up to lift and move loads in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	53. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden pylons when tipping loads and b) explain why a distance should be kept.
	A
	54. Name TWO factors that determine the weight of a load.
	A
	55. What are FOUR safety checks that should be made before loading or unloading a suitable vehicle?
	A
asks	56. Give THREE reasons why it is important that a forklift is not leaning sideways before attempting to lift or place a load.
Working tasks	A

	57. When placing onto or lifting a load from a loading out tower or rack: a) why must the forklift's handbrake be on and the transmission in neutral and b) what would be the consequences if this was not done?
	A
	58. Give FOUR reasons that may cause the forklift to tip over sideways.
	A
	59. Give FOUR reasons that may cause the machine to tip forwards.
	A
	60. Before loading an uncoupled trailer, what THREE precautions must be taken?
continued	A
Working tasks continued	61. 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 forklift operations?
Work	A
	62. What should be known about the loading out tower or racking before placing loads?
	A
	63. Name FOUR ways that wet weather can affect forklift operations.
	A
_	64. If placing a variety of loads onto a rigid, flatbed transporter, where should the heaviest loads be placed?
	A
	65. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	66. State the possible effect of lifting downhill on a slope.
	A

Technical Test - Theory

leting rk	67. After placing a load, who is responsible for ensuring the load is safe?
Completing work	A
	68. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
	69. When parking the machine at the end of the shift, name THREE places where the machine
	should NOT be parked.
	A
NN	
Shutdown	70. The operator has been asked to drive the machine onto a transporter/trailer. a) Who is
	responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences.
	A
	71. Why should diesel-engined forklifts be re-fuelled at the end of the day?
	A



Telescopic Handler

A17

Technical Test - Theory

	1.	What is the definition of, or how can a hazard be described?
	A	
	2.	What is the purpose of a risk assessment?
	Α	
	3.	List SIX typical subject areas that should be covered in a site induction.
	Α	
	4	What TUDEE duties of the Health and Cafety at Work Ast must employees follow?
bilities		What THREE duties of the Health and Safety at Work Act must employees follow?
ponsil	Α	
nd res		
Roles and responsibilities	5.	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
	Α	
	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 sanctions that can be applied to plant operators who do not comply with, or follow legislation and regulations.
	Α	
	8.	Forklift operators are generally regarded as 'safety-critical' workers. What does this mean?
	Α	

	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 tele-handler?
ned	A
es contin	11. The operator has to use a new type of tele-handler that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
ısibiliti	A
Roles and responsibilities continued	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
oles ar	A
Ř	13. How can a qualification or card benefit a plant operator?
	A
	 Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	15. a) What is meant by the lifting or rated capacity of the tele-handler and b) who determines it?
	A
¥	16. Where should the Operator's Manual be kept and why?
or worl	A
Preparing for work	17. Forklift operations fall within the scope of the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998. Name TWO requirement of the act with regards to lifting.
Pr	A
	18. What is the purpose of a roll or ROPS frame?
	A

19.	What are the THREE actions or stages that a tele-handler operator undertakes during preuse inspections?
Α	
F	or 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 the tyre pressures.
A	
21.	Using the Operator's Manual, state the cold-starting procedure for the machine.
A	
22.	State the purpose of the check valve(s) located on the boom cylinder rams.
A	
23.	State FOUR checks that should be made to the forks.
A	
24.	If checking the oil level using a dipstick, why must gloves be worn?
Α	
25.	Apart from the operator, who else may need to use the machine's Operator's Manual?
A	
26.	What is the purpose of counterweight on the machine?
Α	
27.	As a lifting machine, the tele-handler must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
A	
28.	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
A	

	29. a) Name THREE purposes of the raised lugs on tyres and b) what can happen to a tele- handler if the lugs are severely worn?
	A
	30. If the tele-handler is being travelled or working on the public highway, including adjacent pavement and verges, the Road Traffic Act applies. a) What type of licence and which classes should the operator hold and b) what is the minimum age allowed?
	A
	31. Name THREE conditions that the mirrors on the machine must be in.
Travelling and manoeuvring	A
	32. Why must the seat belt be worn, even with the cab door closed?
	A
	33. a) What is the minimum distance allowed near open trenches when travelling with a telehandler and b) explain why?
	A
elling ar	34. What would happen if the steering mode of 'crab steer' is selected and the steering wheel rotated clockwise?
Trav	A
	35. How is it possible that forklifts can still tip over, even when travelling on gentle gradients, are not overloaded and not being driven at excessive speed?
	A
	36. When working in a confined area or space, name THREE dangers that can be present.
	A
	37. Name SIX possible proximity hazards that may be encountered on site when travelling with a load.
	A
	38. What problems and hazards can soft ground cause to a loaded forklift?
	A

	39. An operator has to travel a tele-handler on the public highway, for which the road traffic act applies. List SIX requirements that must be followed.
	A
per	
Travelling and manoeuvring continued	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
ravelling a	41. Before travelling with a physically large load, name FIVE factors that must be taken into account by the operator before moving.
Ī	A
	42. On stabiliser-equipped machines, what must be checked before the stabilisers are
Setting up for work	lowered?
	A
	43. a) What is meant by the load centre and b) why must it be known for each lift?
	A
	44. If the load centre of the load is longer (increased) than stipulated for the model of tele- handler, what effect does it have on the lifting capacity of the machine?
	A
	45. Which part of the forklift is the load centre usually measured from?
	A
Se	46. Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.
	A
	47. 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?
	Α

	48. Name FOUR factors to consider and know before picking up a load.
	Α
	49. Before picking up a load, why should the forks be equally spaced or distanced on the carriage?
	A
	50. What is the main purpose of the Rated Capacity Indicator (RCI) or load moment indictor?
p	A
ontinue	If setting up to lift and move loads in a pedestrianised area, state THREE factors that need to be taken into account.
or work	A
Setting up for work continued	52. 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
	53. Name TWO factors that determine the weight of a load.
	A
	 Describe ONE physical method of checking that the attachment is fully secured to the coupler prior to work.
	A
Working tasks	55. Give THREE reasons why it is important that a tele-handler is not leaning sideways before attempting to lift or place a load.
	A
	56. When placing onto or lifting a load from a loading out tower: a) why must the tele-handler's handbrake be on and the transmission in neutral and b) what would be the consequences if this was not done?
	A
	57. Give FOUR reasons that may cause the tele-handler to tip over sideways.
	57. Give FOUR reasons that may cause the tele-handler to tip over sideways. A

	58. Give FOUR reasons that may cause the machine to tip forwards.
	A
	59. Before loading an uncoupled trailer, what THREE precautions must be taken?
	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 forklift operations?
	A
	61. Name FOUR ways that wet weather can affect tele-handler operations.
naniiinen	A
working tasks continued	62. Using the lifting capacity diagram (Annex A): a) what is the maximum lifting capacity at maximum height, b) what is the lifting capacity with the boom angle at 45 degrees and a boom extension of 2.5 metres and c) what is the furthest distance (measured from the front tyres) available to place a 1.3 tonnes load at a height of 4 metres?
M	A
	63. If placing a variety of loads onto a rigid, flatbed transporter, where should the heaviest loads be placed?
	A
	64. How can high wind speeds affect tele-handler operations?
	A
	65. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	66. State the possible effect of lifting downhill on a slope.
	A
۷	67. After placing a load, who is responsible for ensuring the load is safe?
work	A

	68. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
	69. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	70. The operator has been asked to drive the machine onto a transporter/trailer. a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences.
Shutdown	A
	71. 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
	72. Why should the tele-handler be re-fuelled at the end of the day?
	A



Reach Truck

A18

Technical Test - Theory

	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
ities	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
Roles and responsibilities	A
Roles	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
	 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. Reach truck operators are generally regarded as 'safety-critical' workers. What does this mean?
	A

	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 reach truck?
per	A
s continu	11. The operator has to use a new type of reach truck that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
ibilitie	A
respons	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
Roles and responsibilities continued	A
Œ	13. How can a qualification or card benefit a plant operator?
	A
	 Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	15. a) What is meant by the lifting capacity of the reach truck and b) who determines it?
	A
	16. Where should the Operator's Manual be kept and why?
for work	A
Preparing for work	17. Reach truck operations fall within the scope of the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998. Name TWO requirements of the act with regards to lifting.
ď	A
	18. What is the purpose of a roll or ROPS frame?
	A

19. What are the THREE actions or stages that a reach truck operator undertakes during pre- use inspections?
A
20. State FOUR checks that should be made to the forks.
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 procedure for greasing the mast components.
A
22. Using the Operator's Manual, state the cold-starting procedure for the machine.
A
23. Explain THREE checks that should be made to the mast lift chains.
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 the counterweight of the machine?
A
27. What is a possible consequence of using a pneumatic tyre with a deep cut in the sidewall?
A
28. Compared to a duplex (double) mast: a) why would a triplex mast be fitted/used and b) what disadvantage does the mast have over the duplex?
A

70	29. a) What THREE checks would be made specifically to the batteries and b) what specific PPE would be worn?
	A
	30. As a lifting machine, the reach truck must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
Preparing for work continued	A
r work	31. What THREE items must be printed on a reach truck's rating plate?
ing fo	A
Prepai	32. If changing an LPG cylinder, state THREE specific precautions to be observed.
	A
	33. On an IC engined reach truck, during work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	Α
	34. If the reach truck 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?
	Α
ıvring	35. Name THREE conditions that mirrors must be in, on the machine.
Travelling and manoeuvring	A
ng an	36. Name SIX possible proximity hazards that may be encountered when travelling with a load.
ravelli	A
F	
	37. Why must the seat belt be worn, even though a ROPS frame is fitted?
	A

	38. a) What is the minimum distance allowed near open trenches when travelling with a reach truck and b) explain why.
	A
	39. A manufacturer must give recommendations on how to travel a reach truck up and down inclines. If this information is not known first hand, what is the general rule about travelling up and down slopes?
	A
	40. What is the best method of driving the reach truck across humps, drainage gullies etc?
	A
pei	41. When working in a confined area or space, name THREE dangers that can be present.
Travelling and manoeuvring continued	A
ınoeuvrin	42. How is it possible that reach trucks can still tip over, even when travelling on gentle gradients, are not overloaded and not being driven at excessive speed?
and ma	A
avelling	43. Before travelling with a physically large load, name FIVE factors that must be taken into account by the operator before moving.
	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. a) What is meant by the load centre and b) why must it be known for each lift?
Setting up for work	A
	46. If the load centre of the load is longer (increased) than stipulated for the model of reach truck, what effect does it have on the lifting capacity of the machine?
n bu	A
Setti	47. Before picking up a load, why should the forks be equally spaced or distanced on the carriage?
	A

	48. Which parts of the reach truck is the load centre usually measured from?
	A
	49. Name FOUR factors to consider and know before picking up a load.
	A
	50. Before travelling with a load, where should the load be positioned?
	A
ıtinued	51. If setting up to lift and move loads in a pedestrianised area, state THREE factors that need to be taken into account.
work cor	A
Setting up for work continued	52. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden pylons when setting up the machine to lift and b) explain why a distance should be kept.
Ø	A
	53. Name TWO factors that determine the weight of a load.
	A
	54. What are FOUR safety checks that should be made before loading or unloading a suitable vehicle?
	A
	55. Give THREE reasons why it is important that a reach truck is not leaning sideways before attempting to lift or place a load.
	A
g tasks	56. When placing onto or lifting a load from a loading out tower or rack: a) why must the reach truck's handbrake be on and the transmission in neutral and b) what would be the consequences if this was not done?
Working tasks	A
	57. Give FOUR reasons that may cause the reach truck to tip over sideways.
	A

	58. Give FOUR reasons that may cause the machine to tip forwards.
	A
	59. Before loading an uncoupled trailer, what THREE precautions must be taken?
	A
inued	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 reach truck operations?
Working tasks continued	A
Vorkinç	61. What should be known about the loading out tower or racking before placing loads?
>	A
	62. If placing a variety of loads onto a rigid, flatbed transporter, where should the heaviest loads be placed?
	A
	63. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	64. State the possible effect of lifting downhill on a slope.
	A
leting rk	65. After placing a load, who is responsible for ensuring the load is safe?
Completing work	A
	66. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
uwc	A
Shutdown	67. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A

	68. 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.
Shutdown continued	A
က်	69. Why should diesel-engined reach trucks be re-fuelled at the end of the day?
	A



Grader

A19

Technical Test - Theory

	1.	What is the definition of, or how can a hazard be described?
	Α	
	2.	What is the purpose of a risk assessment?
	Α	
	3.	List SIX typical subject areas that should be covered in a site induction.
Roles and responsibilities	Α	
	4.	What THREE main duties of the Health and Safety at Work Act must employees follow?
	A	
oles and re	5.	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
R	Α	
	6.	a) What is the purpose of a Method Statement and b) what is required of the operator?
	Α	
	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?
	Α	

	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 grader?
ntinued	A
oilities cor	11. The operator has to use a new type of grader that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
Roles and responsibilities continued	A
oles and I	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
R	A
	13. How can a qualification or card benefit a plant operator?
	A
	 Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	15. Where should the grader'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.
or work	A
Preparing for work	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
Pre	17. Using the Operator's Manual, state the figure for the tyres' operating pressure.
	A
	18. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A

Grader

r-----

A19

Technical Test - Theory

	19. What is the purpose of a roll or ROPS frame?
	A
	20. Explain the difference between a mouldboard side-shift and a circle side-shift.
	A
	21. If fitted, how are the scarifier tines in the block retained in position?
	A
_	22. If fitted, what typical applications would a front dozer blade be used for?
tinued	A
Preparing for work continued	23. How does front wheel drive help work efficiency?
or wo	A
aring f	24. If checking the oil level using a dipstick, why must gloves be worn?
Prep	A
	25. If fitted, what would a front-mounted scarifier normally be used for?
	A
	26. Apart from the operator, who else may need to use the machine's Operator's Manual?
	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. On an articulated grader, what precaution should be taken when turning left or right?
Travelling and manoeuvring	A
ling and rr	29. a) What should be avoided when travelling if the mouldboard is being carried in the banking position and b) why?
Travel	A

	30. How can a tight turning circle be achieved?
ntinued	A
ıg cor	31. When MUST a banksman/signaller be used before moving a grader?
uvrin	A
ianoe	32. Why must the seat belt be worn, even with the cab door closed?
Travelling and manoeuvring continued	A
Trav	33. Give TWO reasons that may cause the grader to tip over sideways.
	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. If setting up to grade in a confined area, name TWO things that should be taken into account before starting.
	A
	36. What particular and specific hazards can affect the stability of the machine when working on old industrial (Brownfield) sites?
	A
work	37. If setting up to work near a pedestrianised area, state THREE factors that need to be taken into account.
ng up for work	A
Settiı	38. Name TWO types of equipment used to ensure that grading levels, measurements and positions are to the required specification.
	A
	39. Describe the procedure to be followed if the blade attachment has to be removed.
	A
	40. What THREE things should be checked out before carrying out embankment work?
	A

_	41. Before manually changing the blade, why should the blade be positioned resting on the ground before removing the final pin?
	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 machine and b) explain why a distance should be kept.
	A
	43. If a trench has a depth of 2.0 metres: a) what is the minimum distance to maintain from the edge of the trench and b) explain why.
	A
	44. If a yellow coloured marker tape is unearthed during grading, which two types of services could this indicate?
	A
	45. What is the nearest distance allowed to gas pipes when grading with the machine?
sks	A
Working tasks	46. What is the meaning of this hand signal (being demonstrated by the tester)?
Work	A
	47. Describe THREE reasons for using the crab steer mode.
	A
	48. If operating the machine on a 'formation' trim, name THREE possible hazards.
	A
	49. How can tyre marks be avoided when finishing a surface?
	A
	50. Why would a fast working speed be selected if spreading light materials?
	A
	51. On graders fitted with leaning wheels, how can the effect of side-thrust acting on the front be counteracted when a large volume of material is being side-cast?
	A

Technical Test - Theory

(0	52. What problem may occur if the wearing plates on the blade are at the maximum wear limit?
Working tasks continued	A
orking task	53. What does float control of the blade allow?
>	A
leting ırk	54. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
Completing work	A
	55. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	56. 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	57. Many graders 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?
0,	A
	58. 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
	59. Why should a grader be re-fuelled at the end of the day?
	A



Hoist A20

Technical Test - Theory

	1.	What is the definition of, or how can a hazard be described?
	Α	
	2.	What is the purpose of a risk assessment?
	Α	
	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?
Roles and responsibilities	Α	
Roles and	5.	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
<u>.</u>	Α	
	6.	a) What is the purpose of a Method Statement and b) what is required of the operator?
	Α	
	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.
	Α	
	8.	Dedicated hoist operators are generally regarded as 'safety-critical' workers. What does this mean?
	Α	

Hoist

Technical Test - Theory

	9. The operator has to use a new type of hoist that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
	A
ontinued	10. What are the possible outcomes of being prosecuted for not complying with legislation and regulations?
Roles and responsibilities continued	A
respon	11. How can a qualification or card benefit a hoist operator?
s anc	A
Role	Name THREE ways that a hoist operator can contribute to ensuring repeat business with the client or main contractor.
	A
	13. Where should the user's manual be kept and why?
	A
	14. What are the THREE actions that a hoist operator undertakes during pre-use inspections?
	A
work	For question 15 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	15. Using the Operator's Manual, find the page that deals with emergency lowering procedures.
Preparing for	A
	16. a) Why must all movement controls be clearly marked as to direction or mode and b) what consequences could occur if controls were not clearly marked?
	A
	17. The Safe Working Load (SWL) signifies exactly what?
	A

18.	When placing loads to and from the cage, why should gloves be worn?
Α	
19.	Apart from the operator, who else may need to use the machine's Operator's Manual?
Α	
20.	As a machine for the lifting of persons, the hoist must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
Α	
21.	On hoists using a chassis, what checks should be made to the stabilisers?
Α	
22.	What is meant by an inclined hoist?
Α	
23.	What is the difference between a mechanical interlock gate and an electric interlock gate?
Α	
24.	On rope operated types, why is it important to keep turns of rope on the hoist drum?
Α	
25.	When checking a (fall protection) harness, name FIVE possible defects that may be found.
Α	
26.	How many ties should be used when fixing the mast to a structure?
Α	
27.	What is meant by the hoistway?
Α	
28.	After installation but before work: a) what must happen and b) by whom?

Hoist A20 Technical Test - Theory

	29. If a fault is found during pre-use checks: a) who should the fault be reported to and b) when?
	A
	30. What is the difference between a transport platform and a passenger/goods combined type?
Preparing for work continued	A
work c	31. What could possibly cause the mast to go out of alignment?
ng for	A
reparir	32. What are the main requirements of a passenger-carrying type hoist over a goods type?
т	A
	33. What checks should be made to the mast ties?
	A
	34. If siting a chassis or frame for a hoist, what checks must be made to the ground type?
	A
	35. What THREE pieces of information must be displayed on the gates of a goods carrying hoist?
	A
Setting up for work	36. When setting up for work, what should be in place should machine failure happen?
ı up fe	A
Setting	37. If the hoist is located in an area of moving vehicles, what systems should be implemented?
	A
	38. If operating a hoist in a pedestrianised area, state TWO factors that need to be taken into account.
	A

Hoist

Technical Test - Theory

Setting up for work continued	39. If the operator is unable to see the full length of the hoistway, what action should be taken?
	A
	40. What must you take into account when calculating the safe working load of the cage?
	A
	41. Before taking passengers up in a hoist, what should be ensured about the individual or individuals?
	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 hoist and b) explain why a distance should be kept.
	A
	43. Name TWO factors that determine the weight of a load.
	A
	44. When raising the cage, what ongoing checks need to be made?
	A
tasks	45. a) What is the danger of carrying scaffolding in unmodified cages and b) what is required in the cage to carry scaffolding?
Working tasks	A
	46. When working in a confined area or space with a diesel powered hoist, what TWO dangers can be present?
	A
	47. Name THREE ways that inclement, wet weather can affect hoist operations.
	A
	48. How can high wind speeds affect hoist operations?
	A

	49. When loading materials into the cage, what THREE things must be taken into account?
	A
	After loading the cage with passengers, the operator selects a motion but the motor doesn't start. Name FOUR possible problems.
	A
	51. What is the function of the over-run devices?
	A
ntinued	52. On hoist with two-speed motors: a) what should the operator do when approaching the desired landing and b) why?
Working tasks continued	A
orking	53. If a thunderstorm is expected or occurs, what procedure should happen?
>	A
	54. On ride-on types, if the hoist drive motor stops between landings, what is the course of action?
	A
	55. In simple terms, on rack and pinion types, how do emergency lowering systems work?
	A
	56. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	57. Before leaving the cage for a rest break, what action must be carried out?
Shutdown	A
	58. After shutdown, the cage floor should be cleaned. What other part of the cage should be cleaned (if required)?
	A



Wheeled Loading Shovel

A21

Technical Test - Theory

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

	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 loading shovel?
	A
nued	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?
contir	A
Roles and responsibilities continued	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
nodsa	A
es and re	13. Give TWO examples of where The Work at Height Regulations 1995 may apply to loading shovel operations.
Role	A
	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 loading shovel's Operator's Manual be kept and why?
	A
ır work	17. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
Preparing for work	A
	18. What is the purpose of a roll or ROPS frame?
	A

	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 the tyres' operating pressure.
	A
	20. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	21. Many loading shovels have 'limited-slip' axles. How can this help production?
nued	A
conti	22. If checking the oil level using a dipstick, why must gloves be worn?
Preparing for work continued	A
eparing	23. How are loading shovel bucket sizes calculated?
Pre	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. 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	27. Most loading shovels have an articulated chassis that swivels or pivots in the centre. One pivot plane or angle (looking from the top) provides the steering (articulation), what is the function of the other pivot plane or angle i.e. looking from the front (oscillation)?
	A
	28. a) Give ONE advantage and b) TWO disadvantages of rear mounted cameras.
	A
Ĕ	

	29. An operator has been asked to carry some material down a small section of the public highway, for which the Road Traffic act applies. What are the implications for the operator and machine?
	A
	30. If the loading shovel 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
	31. Name THREE conditions that mirrors must be in, on the machine.
	A
ō	32. Why must the seat belt be worn, even with the cab door closed?
Travelling and manoeuvring continued	A
oeuvri	33. What problems and hazards can soft ground cause to a loaded loading shovel?
and man	A
ravelling	34. a) Name THREE purposes of the raised lugs on tyres and b) what can happen to a loading shovel if the lugs are severely worn?
F	A
	35. When travelling on wet clay or rock, what effect does this have on the loading shovel?
	A
	36. a) What is the minimum distance allowed near open trenches when travelling with a loaded loading shovel and b) explain why.
	A
	37. Give FOUR reasons that may cause the loading shovel to tip over sideways.
	A

	3. Whenever possible, who should decide the positioning of the dump truck when being loaded?
	Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.
	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?
Setting up for work	
	. Give THREE possible reasons why loading shovels should not stray off the designated travel routes.
Setting u	Describe ONE physical method of checking that the attachment is fully secured to the coupler prior to work.
	B. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account?
	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?
	5. 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?

work d	46. Give TWO reasons why the loading shovel operator should have an understanding of the type of material being loaded.
Setting up for work continued	A
	47. 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
	48. The operator is asked to tip material into a trench. State FIVE different requirements that must be considered or implemented before tipping commences.
	A
	49. Why should different materials be segregated during extracting?
asks	A
Working tasks	50. Who should determine the maximum load that should be placed into the body of the dump truck?
	A
	51. If a load has to be tipped on a slope, what may happen if the load is tipped downhill and why?
	A
	52. When working in a confined area or space, name THREE hazards that can occur.
	A
	53. 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
l	

Technical Test - Theory

	54. State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
þe	A
continu	55. When constructing a ramp to load a crusher, name THREE considerations to take into account.
Working tasks continued	A
Work	56. Smaller loading shovels may be equipped with a clamshell bucket. Name TWO functions of this type of bucket.
	A
	57. Many loading shovels 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?
Completing work	A
Comple	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
	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.
lown	A
Shutdown	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 a loading shovel be re-fuelled at the end of the day?
	A



Tracked Loading Shovel

A22

Technical Test - Theory

	1. Wha	t is the definition of, or how can a hazard be described?
	Α	
	2. Wha	t is the purpose of a risk assessment?
	Α	
	3. List s	SIX typical subject areas that should be covered in a site induction.
	A	
	4 Wha	t THREE main duties of The Health and Safety at Work Act must employees follow?
ties	A	THINEE main duties of the recalitrand dutery at work not must employees follow:
nsibili	^	
respo		
Roles and responsibilities		t does The Health and Safety at Work Act require employers to do with regards ifically to plant?
ď	Α	
	6. a) W	hat is the purpose of a Method Statement and b) what is required of the operator?
	Α	
	judic	e FOUR different types or levels of sanctions that can be applied (by employers and ial bodies) to plant operators who do not comply with, or follow legislation and lations.
	Α	
	8. Plan	t operators are generally regarded as 'safety-critical' workers. What does this mean?
	Α	

	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 loading shovel?
	A
ō	11. The operator has to use a new type of tracked loader that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
ontinue	A
ibilities c	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
suodse	A
Roles and responsibilities continued	13. Give TWO examples of where The Work at Height Regulations 1995 may apply to loading shovel operations.
Ro	A
	14. How can a qualification or card benefit a plant operator?
	A
	 Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	16. Where should the loading shovel's Operator's Manual be kept and why?
	A
or work	17. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
Preparing for work	A
	18. What is the purpose of a roll or ROPS frame?
	A

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 track tension.	
A		
20.	. Using the Operator's Manual, state the cold-starting procedure for the machine.	
A		
21.	. a) What are the functions of 'grousers' or 'cleats' as found on track pads and b) what is the result if excessively worn?	
Α		
22.	. If checking the oil level using a dipstick, why must gloves be worn?	
A		
23.	. How are loading shovel bucket sizes calculated?	
Α		
24.	. Apart from the operator, who else may need to use the machine's Operator's Manual?	
Α		
25.	. a) What are the purposes of the track guards and b) where would it/they be located?	
Α		
26.	. Why are most tracked loading shovels rear-engined?	
Α		
27.	. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.	
Α		

	28. a) Give ONE advantage and b) TWO disadvantages of rear mounted cameras.
	A
	29. Name THREE conditions that mirrors must be in, on the machine.
	A
rring	30. Why must the seat belt be worn, even with the cab door closed?
Travelling and manoeuvring	A
ing ar	31. What problems and hazards can soft ground cause to a loaded tracked shovel?
Travelli	A
	32. a) What is the minimum distance allowed near open trenches when travelling with a loaded loading shovel and b) explain why.
	A
	33. Give FOUR reasons that may cause the loading shovel to tip over sideways.
	A
	34. Whenever possible, who should decide the positioning of the dump truck when being loaded?
Setting up for work	A
	35. Name TWO types of equipment that are used to ensure that excavation levels, measurements and positions are to the required specification.
	A
	36. Give THREE possible reasons why loading shovels should not stray off the designated travel routes.
	A
	37. If setting up to work near a pedestrianised area, state THREE factors that need to be taken into account.
	A

Setting up for work continued	38.	What is regarded as the most productive position for the dump truck to be in when being loaded by a loading shovel working from a stockpile?
	Α	
	39.	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?
	Α	
etting up	40.	Give TWO reasons why the loading shovel operator should have an understanding of the type of material being loaded.
0)	A	
	41.	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	
	42.	If fitted, describe ONE application when the hand throttle can safely be used.
	Α	
	43.	The operator is asked to tip material into a trench. State FIVE different requirements that must be considered or implemented before tipping commences.
Working tasks	A	
Vorkin	44.	Why should different materials be segregated during excavating?
>	Α	
	45.	Who should determine the maximum load that should be placed into the body of the dump truck?
	Α	
	46.	What factors determine the shoring requirements of a trench?
	Α	
	47.	If a load has to be tipped on a slope, what may happen if the load is tipped downhill and why?
	Α	

	48. When working in a confined area or space, name THREE hazards that can occur.
	A
	49. 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
	50. State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
	A
	When constructing a ramp to load a crusher, name THREE considerations to take into account.
inued	A
s cont	52. Give TWO reasons why, wherever possible, operators should excavate ground in layers.
Working tasks continued	A
Work	53. Why is it poor practice to reverse the loader at high speed?
	A
	54. a) What effect on loader operations does making too deep a cut have when filling the bucket and b) what effect does making too shallow a cut have?
	A
	55. When backfilling trenches by pushing spoil toward the trench, why should the bucket start to be emptied / raised before reaching the trench?
	A
	 Tracked loading shovels are normally equipped with a clamshell bucket. Name FOUR functions of this type of bucket.
	A
	57. Describe TWO actions to be taken for an open trench at the end of a working day.
Completing work	A
	58. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
CO	A

	59. How can tracks be prevented from becoming frozen to the ground during cold weather?
	A
	60. Many loading shovels 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. 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.
Shutdown	A
	62. 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
	63. Why should a loading shovel be re-fuelled at the end of the day?
	A



Skid Steer Loader

A23

Technical Test - Theory

	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 adn Safety at Work Act must employees follow?
Roles and responsibilities	A
Roles and	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
ш.	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	 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

	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 skid steer?
ס	A
Roles and responsibilities continued	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?
onsibilit	A
and respo	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
Roles	A
	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 Operator's Manual be kept and why?
	A
or work	16. Name THREE attachments that are available for a skid steer.
Preparing for work	A
Prep	17. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
	A

Mark

	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. Describe briefly how a (wheeled) skid steer 'steers' or changes direction.
	A
	21. If checking the oil level using a dipstick, why must gloves be worn?
penu	A
k contii	22. How are skid steer bucket sizes calculated?
for wor	A
Preparing for work continued	23. On pneumatic tyre equipped machines, what is a possible consequence of using a tyre with a deep cut in the sidewall?
<u>a</u>	A
	24. What is the purpose of a roll or ROPS frame?
	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 the counterweight of the machine?
	A
	 Skid steers may be equipped with a clamshell bucket. Name TWO functions of this type of bucket.
	A

Preparing for work continued	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
Prepar	
	29. Why should a skid steer not be travelled if there is no attachment/bucket fitted to the loader arms?
	A
	30. How can a skid steer turn around within its own area?
	A
	31. An operator has been asked to carry some material down a small section of the public highway, for which the Road Traffic act applies. What are the implications for the operator and machine?
	A
uvring	32. If the skid steer 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?
Travelling and manoeuvring	A
elling aı	33. Name THREE conditions that mirrors must be in, on the machine.
Trave	A
	34. Why must the seat belt be worn, even within the confines of the cab?
	A
	35. What problems and hazards can soft ground cause to a loaded skid steer?
	A
	36. a) Name THREE purposes of the raised lugs on tyres and b) what can happen to a skid steer if the lugs are severely worn?
	A

	37. When travelling on wet clay or rock, what effect does this have on the skid steer?
Travelling and manoeuvring continued	A
	38. a) What is the minimum distance allowed near open trenches when travelling with a loaded skid steer and b) explain why.
manoeuv	A
gand	39. Give FOUR reasons that may cause the skid steer to tip over sideways.
Travellin	A
	40. Whenever possible, who should decide the positioning of the vehicle to be loaded?
	A
	41. Explain ALL visual checks that must be carried out on all types of quick-hitch bucket attaching systems before use.
	A
	42. 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?
up for work	A
Setting up fc	43. Describe ONE physical method of checking that the attachment is fully secured to the coupler prior to work.
, ,	A
	44. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	45. What is regarded as the most productive position for the vehicle to be loaded to be in when being loaded by a skid steer working from a stockpile?

Setting up for work continued	46. 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
	47. Give TWO reasons why the skid steer operator should have an understanding of the type of material being loaded.
	A
	48. When working in a confined area or space: a) what danger can be present with regards to the rear of the machine, b) what is the recommended minimum distance and c) what measures must be implemented if the gap is less?
	A
	49. The operator is asked to tip material into a trench. State FIVE different requirements that must be considered or implemented before tipping commences.
	A
	50. Why should different materials be segregated during extracting?
Working tasks	A
Workir	51. Who should determine the maximum load that should be placed into a load transporting vehicle?
	A
	52. On non-self levelling buckets, what problem can occur if a fully loaded bucket is raised to full height?
	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. When working in a confined area or space, name THREE hazards that can occur.
	A

	55. 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.
per	A
Working tasks continued	56. State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
orking tas	A
M	57. When constructing a ramp to load a small crusher, name THREE considerations to take into account.
	A
	58. If access or egress to/from the cab has to be via the front of the machine, state two precautions to be observed before exiting the machine.
g work	A
Completing work	59. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
J	A
	60. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	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.
Shutdown	A
Shut	62. 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
	63. Why should a skid steer be re-fuelled at the end of the day?
	A



Motorised Scraper

A24

Technical Test - Theory

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

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 scraper?
A
11. The operator has to use a new model of scraper 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 scraper operations.
A
14. How can a qualification or card benefit a plant operator?
A
 Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
A
16. Where should the scraper'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

	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 the purpose of a roll or ROPS frame?
	A
	21. If checking the oil level using a dipstick, why must gloves be worn?
pe	A
Preparing for work continued	22. Before entering the bowl area, what should be ensured?
work c	A
ing for	23. Apart from the operator, who else may need to use the machine's Operator's Manual?
Prepar	A
_	24. On scrapers, steering is achieved by actuating hydraulic rams which are 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
	25. What is the purpose of the apron?
	A
	26. On start up, the air pressure on the machine is low. What actions must the operator carry out before work and during work?
	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. Many scrapers have differential locking systems. How can this help production?
	A
	29. a) Give ONE advantage and b) TWO disadvantages of rear mounted cameras.
	A
	30. An operator has been asked to carry some material down a small section of the public highway, for which the Road Traffic act applies. What are the implications for the operator and machine?
	A
	31. If the machine is being travelled or working on the public highway, the Road Traffic Act applies. a) What type of licence and which classes should the operator hold and b) what is the minimum age allowed?
ing	A
manoeuvr	32. Give THREE possible reasons why scrapers should not stray off the designated haul routes.
Travelling and manoeuvring	A
Tra	33. a) State the purpose of a retarder and b) the possible consequences of not using it when required.
	A
	34. Name THREE conditions that mirrors must be in, on the machine.
	A
	35. What problems and hazards can soft ground cause to a loaded scraper?
	A
	36. a) Name THREE purposes of the raised lugs on tyres and b) what can happen to the scraper if the lugs are severely worn?
	A

	37. When travelling on wet clay or rock, what effect does this have on the scraper?
	A
	38. a) What is the minimum distance allowed near open trenches when travelling with a scraper and b) explain why.
	A
	39. When MUST a banksman/signaller be used before moving a scraper?
penu	A
contir	40. Why must the seat belt be worn, even with the cab door closed?
Travelling and manoeuvring continued	A
d mar	41. Give THREE reasons that may cause the machine to roll over.
elling an	A
Trav	42. Explain the difference between: a) struck and b) heaped capacities.
	A
	43. How are scrapers rated?
	A
	44. Give an advantage of an auger or elevator type scraper over a conventional scraper.
	A
	45. Give TWO reasons why the scraper operator should have an understanding of the type of material being loaded.
	A
*	
Setting up for work	46. If setting up to excavate in a confined area, name TWO things that should be taken into account before starting.
Setting u	A
	47. What particular and specific hazards can affect the stability of the machine when working on old industrial (Brownfield) sites?
	A
L	

[
	48. Which two points on a site represent the haul distance?
	A
ntinued	49. The operator is asked to excavate a new area. State FIVE different requirements that must be considered or implemented before work commences.
Setting up for work continued	A
Setting	50. 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
	51. Why should different soils be segregated during excavating?
	A
	52. Describe TWO actions to be taken if the scraper becomes 'bogged' down on the fill.
	Α
	53. To assist in ejecting sticky material from the scraper bowl, describe the actions that may be taken.
	A
g tasks	54. On a twin-engined scraper, how should the engines speed be set whilst driving around a corner?
Working	A
	55. Explain the difference between: a) a 'stockpile' and b) a 'borrow pit'.
	A
	56. What is 'pump loading'?
	A
	57. Describe one use of a concave cut.
	A

	58. What factors determine the shoring/supporting requirements of a trench?
	A
	59. Give TWO reasons why operators should excavate ground in layers.
pen	A
Working tasks continued	60. If a yellow coloured marker tape is unearthed during excavating, which two types of services could this indicate?
king ta	A
Wor	61. What is the nearest distance allowed to gas pipes when excavating with the machine?
	A
	62. What is the meaning of this hand signal (being demonstrated by the tester)?
	A
	63. Describe one action to be taken to protect the formation in inclement weather.
work	A
Completing work	64. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
ပိ	A
	65. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
nwo	66. Many scrapers 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?
Shutdown	A
	67. 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

Technical Test - Theory

68. 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
69. Why should a scraper be re-fuelled at the end of the day?
A



Mobile Elevating Work Platform

A25

Scissor

Technical Test - Theory

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

Technical Test - Theory

Scissor

	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. What determines whether a (fall protection) harness can be worn when operating a MEWP scissor and the type?
	A
	11. When can a MEWP work (raise the platform) on sloping ground?
per	A
	12. The operator has to use a new type of MEWP that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
contin	A
Roles and responsibilities continued	13. What are the possible outcomes of being prosecuted for not complying with legislation and regulations?
respon	A
s and I	14. How can a qualification or card benefit a plant operator?
Role	A
	15. What is the difference between: a) a work restraint system and b) a fall arrest system?
	A
	16. Name THREE ways that a MEWP operator can contribute to ensuring repeat business with the client or main contractor.
	A
	17. a) What is meant by the working height of the MEWP and b) who determines it?
	A
Preparing for work	18. Where should the Operator's Manual be kept and why?
	A
oaring	19. What are the THREE actions that a MEWP operator undertakes during pre-use inspections?
Pre	A

Scissor

Technical Test - Theory

Mark

For questions 20 to 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 the tyre pressures or battery checks procedure. Α 21. Using the Operator's Manual, state any cold-starting procedures for the machine. For electric units only, state the battery function checks that need to be made. Α 22. State the purpose of the check valve(s) located on the scissor cylinder ram (or rams). Α Preparing for work continued 23. When or why would foam filled tyres be specified for platform operations? Α 24. What is meant by a bi-fuel MEWP? Α 25. If a scissor is equipped with extending decks, what does this allow? Α 26. How do stabilisers increase the potential stability of a MEWP scissor? Α 27. a) Why must all travel and platform controls be clearly marked as to function and direction or mode and b) what consequences could occur if controls were not clearly marked? Α 28. The Safe Working Load (SWL) signifies what? Α

Scissor Technical Test - Theory

	29. When checking fluid levels, why must gloves be worn?
	A
	30. Apart from the operator, who else may need to use the machine's Operator's Manual?
þe	A
	31. When checking a (fall protection) harness, name FIVE possible defects that may be found.
	A
continu	32. What is the purpose any counterweights of the machine?
work o	A
Preparing for work continued	33. If the wearing of a safety harness or belt is required: a) where must it be attached to and b) where should the harness not be attached to?
	A
	34. As a machine for the lifting of persons, the MEWP must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
	A
	35. On IC engines, 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	36. If a self-propelled scissor 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
evelling a	37. If travelling near an open trench which has a depth of 2.0 metres, what is the minimum distance to maintain?
Tra	A

Scissor

Technical Test - Theory

eq	38. What would happen if the steering axle is to the rear of the direction for travel?
continu	A
ivring (39. Before climbing or descending a slope, what FOUR factors should be checked?
Travelling and manoeuvring continued	A
ng and	40. Give FOUR reasons that may cause the MEWP to tip over.
Travellir	A
	41. When siting the MEWP for work, what checks must be made to the ground type?
	A
	42. If using a MEWP in an area where there are moving vehicles, state THREE precautions to be taken
	A
	43. Apart from ground conditions, list FIVE checks that must be taken into account when siting the MEWP.
	A
Setting up for work	44. When setting up for work, what should be in place should machine failure happen?
g up fo	A
Settin	45. If setting up to lift in a pedestrianised area, state TWO factors that need to be taken into account.
	A
	46. If setting up to work near a steep slope, apart from ground support: a) what could be a danger and b) what actions should be taken?
	A
	47. What must you take into account when calculating the safe working load of the platform of a MEWP?
	A
L	

Scissor Technical Test - Theory

Setting up for work continued	48. Before taking passengers up in a MEWP, what should be ensured about the individual or individuals?
	A
	49. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when setting up the MEWP and b) explain why a distance should be kept.
	A
	50. Name TWO factors that determine the weight of a load.
Setting	A
o,	51. If setting up to work near a bank, what is the recommended distance between the stabilisers or wheels and the top of the bank?
	A
Working tasks	Give TWO reasons why is it important that a MEWP is not leaning sideways before attempting to raise the platform.
	A
	53. When raising the platform or travelling with a raised platform, what ongoing checks need to be made?
	A
	54. When working in a confined area or space with a diesel powered machine, name THREE dangers that can be present?
	A
	55. Name FOUR ways that wet weather affect MEWP operations.
	A
	56. If raising the platform up to a ceiling of a structure, why must extra care be taken when nearing the ceiling?
	A

Scissor

Technical Test - Theory

Working tasks continued	57. How can high wind speeds affect MEWP operations?
	A
	58. As a platform is raised higher, what also rises that can cause instability?
	A
	59. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	60. Before leaving the platform for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
	61. When parking the machine at the end of the shift, name THREE places where the MEWP should NOT be parked.
Shutdown	A
	62. The operator has been asked to drive a self-propelled MEWP 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. Why should a diesel MEWP be re-fuelled at the end of the day?
	A



Mobile Elevating Work Platform

A26

Boom

Technical Test - Theory

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

Boom

	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	10. What determines the type of harness that can be worn when operating a MEWP boom?
	A
	11. When can a MEWP work (raise the platform) on sloping ground?
pen	A
	12. The operator has to use a new type of MEWP that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
s contir	A
Roles and responsibilities continued	13. What are the possible outcomes of being prosecuted for not complying with legislation and regulations?
nd respo	A
oles ar	14. How can a qualification or card benefit a plant operator?
Rc	A
	15. Name THREE ways that a plant operator can contribute to ensuring repeat business with the client or main contractor.
	A
	16. a) What is meant by the working range of the MEWP and b) who determines it?
	A
	17. What is the difference between: a) a work restraint system and b) a fall arrest system?
	A
for	18. Where should the Operator's Manual be kept and why?
Preparing for work	A

Technical Test - Theory

Boom

	19. a) What is the difference between outreach and radius of a MEWP boom and b) why would an operator need to know the difference?
	A
	20. What are the THREE actions that a MEWP operator undertakes during pre-use inspections?
	A
	For questions 21 to 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. For tracked types, state checks that must be made to the track belts.
work	A
Preparing for work	22. Using the Operator's Manual, state any cold-starting procedures for the machine. For electric units only, state the battery function checks that need to be made.
	A
	23. State the purpose of the check valve(s) located on the boom cylinder ram (or rams), circuit.
	A
	24. When or why would foam filled tyres be specified for platform operations?
	A
	25. What is meant by a bi-fuel MEWP?
	A
	26. How do stabilisers increase the potential stability of a MEWP boom?
	A

Technical Test - Theory

Boom

	27. a) Why must all travel and platform controls be clearly marked as to function and direction or mode and b) what consequences could occur if controls were not clearly marked?
	A
	28. The Safe Working Load (SWL) means exactly what?
	A
	29. When checking fluid levels, why must gloves be worn?
	A
	30. Apart from the operator, who else may need to use the machine's Operator's Manual?
	A
ntinued	31. What THREE types of information may be found on the operating envelope chart of a MEWP boom?
Preparing for work continued	A
eparing	32. What is the purpose of the counterweights of the machine?
Pr	A
	33. If required to wearing a safety harness or belt: a) where must it be attached to and b) where should the harness not be attached to?
	A
	34. As a machine for the lifting of persons, the MEWP must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
	A
	35. On IC engines, during work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A

Technical Test - Theory

Boom

36. If a self-propelled MEWP 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
37. If travelling near an open trench which has a depth of 2.0 metres, what is the minimum distance to maintain?
A
38. What would happen if the steering axle is to the rear of the direction for travel?
A
39. On vehicle mounted MEWPs, what main precaution should be taken before travelling on the public highway?
A
40. An operator has to travel a MEWP along a stretch of the public highway, for which the road traffic act applies. List SIX requirements that must be followed.
A
41. Before climbing or descending a slope, what FOUR factors should be checked?
A
42. When setting up for work, what should be in place should machine failure happen?
A
43. If setting up to work near a steep slope, apart from ground support: a) what could be a danger and b) what actions should be taken?
A
44. When siting the MEWP for work, what checks must be made to the ground type?
A
45. If using a MEWP in an area where there are moving vehicles, state THREE precautions to be taken
A

Boom Technical Test - Theory

	Apart from ground conditions, list FIVE checks that must be taken into account when siting the MEWP.
	A
	47. If setting up to lift in a pedestrianised area, state TWO factors that need to be taken into account.
	A
	48. What must you take into account when calculating the safe working load of the platform of a MEWP?
pen	A
rk contin	49. Before taking passengers up in a MEWP, what should be ensured about the individual or individuals?
or wo	A
Setting up for work continued	50. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when setting up the MEWP and b) explain why a distance should be kept.
	A
	51. Name TWO factors that determine the weight of a load.
	A
	52. If setting up to work near a bank, what is the recommended distance between the stabilisers or wheels and the top of the bank?
	A
	53. Give TWO reasons why is it important that a MEWP is not leaning sideways before attempting to raise the platform.
Working tasks	A
	54. Give FOUR reasons that may cause the MEWP to tip over sideways.
	A
	55. Give THREE reasons that may cause the machine to tip forwards.
	A

Technical Test - Theory

Boom

Working tasks continued	56. When working in a confined area or space with a diesel powered machine, name THREE dangers that can be present?
	A
	57. Name FOUR ways that wet weather affect MEWP operations.
	A
	58. If raising the platform up to a ceiling of a structure, why must extra care be taken when nearing the ceiling?
	A
	59. How can high wind speeds affect MEWP operations?
	A
	60. What is the meaning of this hand signal (being demonstrated by the tester)?
	A
	61. Before leaving the cab or platform for a rest break, after parking and switching off the machine, what final action must be carried out?
	A
Shutdown	62. When parking the machine at the end of the shift, name THREE places where the MEWP should NOT be parked.
	A
	63. The operator has been asked to drive a self-propelled MEWP 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 diesel MEWP be re-fuelled at the end of the day?
	A



Mobile Elevating Work Platform

A27

Mast Climber

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

Technical Test - Theory

	9. What determines the type of (fall protection) harness that can be worn when operating a mast climber?
	A
	10. What is the difference between a: a) work restraint system and b) fall arrest system?
	A
	11. When can a mast climber work on sloping ground?
ntinued	A
oilities col	12. The operator has to use a new type of mast climber that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
ponsil	A
Roles and responsibilities continued	13. What are the possible outcomes of being prosecuted for not complying with legislation and regulations?
Role	A
	14. How can a qualification or card benefit a plant operator?
	A
	15. Name THREE ways that a plant operator can contribute to 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 are the THREE actions that a mast climber operator undertakes during pre-use inspections?
	A
	For question 18 the Operator's Manual for the machine being used for the test MUST be available for reference by the candidate
	 Using the Operator's Manual, find the page that deals with emergency lowering procedures.
	A

Technical Test - Theory

_	19. a) Why must all movement controls be clearly marked as to direction or mode and b) what consequences could occur if controls were not clearly marked?
	A
	20. The Safe Working Load (SWL) signifies what?
	A
	21. When placing loads to and from the platform, 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. As a machine for the lifting of persons, the mast climber must be thoroughly examined. a) What is the purpose of the examination and b) who would carry out the examination?
Preparing for work continued	A
	24. On mast climbers using a chassis, what checks should be made to the stabilisers?
	A
	25. What is the function of the electric interlock on the gate?
	A
	26. When checking a (fall protection) harness, name FIVE possible defects that may be found.
	A
	27. How many ties should be used when fixing the mast to a structure?
	A
	28. After installation but before work: a) what must happen and b) by whom?
	A
	29. If a fault is found during pre-use checks: a) who should the fault be reported to and b) when?
	A

[
ork	30. What could possibly cause the mast to go out of alignment?
for w	A
Preparing for work continued	31. What checks should be made to the mast ties?
Prep	A
	32. If siting a chassis or frame base for a mast climber, what checks must be made to the ground type?
	A
	33. What information must be displayed on the platform?
	A
	34. When setting up for work, what should be in place should machine failure happen?
	A
	35. If the mast climber is located in an area of moving vehicles, what systems should be implemented?
	A
or work	36. If operating a mast climber in a pedestrianised area, state TWO factors that need to be taken into account.
Setting up for work	A
Sel	37. What must you take into account when calculating the safe working load of the platform?
	A
	38. Before taking passengers up in a mast climber, what should be ensured about the individual or individuals?
	A
	39. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when setting up a mast climber and b) explain why a distance should be kept.
	A
	40. Name TWO factors that determine the weight of a load.
	A

	41. Give TWO reasons why is it important that a mast climber is not leaning sideways before attempting to raise the platform.
	A
	42. If fitted: a) what can be placed on the platform extensions and b) when?
	A
	43. At what height can personnel access and egress the platform?
	A
	44. On dual masted climbers, why should there be at least two personnel on board?
	A
	45. When raising the platform, what ongoing checks need to be made?
	A
ķ	46. When working in a confined area or space with a diesel powered mast climber, what TWO dangers can be present?
Working tasks	A
Workin	47. Name THREE ways that inclement, wet weather can affect mast climber operations.
	A
	48. If raising the platform up to a ceiling of a structure, why must extra care be taken when nearing the ceiling?
	A
	49. How can high wind speeds affect mast climber operations?
	A
	50. When loading materials onto the platform, what THREE things must be taken into account?
	A
	51. After loading the platform, the operator selects a motion but the motor doesn't start. Name THREE possible problems.
	A

	52. What is the function of the over-run device?
	A
	53. What is the procedure if a thunderstorm is expected or occurs?
itinued	A
ks con	54. If the platform drive motor(s) stops whilst travelling, what is the course of action?
Working tasks continued	A
Work	55. In simple terms, on rack and pinion types, how do emergency lowering systems work?
	A
	56. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	57. Before leaving the platform for a rest break, what action must be carried out?
Shutdown	A
Shul	58. After shutdown, why should the platform floor be cleaned?
	A



Tripod

A30

Technical Test - Theory

1.	What is the definition of, or how can a hazard be described?
Α	
2.	What is the purpose of a risk assessment?
Α	
3.	List SIX typical subject areas that should be covered in a site induction.
Α	
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?
Α	
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	
-	
I	Rig operators can be regarded as 'safety-critical' workers. What does this mean?
8.	This operators can be regarded as safety childer workers. What does this mean.



A30

Tripod

Technical Test - Theory

	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the rig.
	A
	10. In what situation does a hard hat NOT need to be worn when operating a piling rig?
	A
tinued	11. The operator has to use a new model of rig that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the operator to have?
uoo s	A
Roles and responsibilities continued	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
respo	Α
les and	13. Give ONE example of where The Work at Height Regulations 1995 may apply to tripod operations.
R ₀	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 User's Manual be kept and why?
	A
	17. What are the THREE actions or stages that a rig operator undertakes during pre-use inspections?
	A
	For question 18 the User's Manual for the rig being used for the test MUST be available for reference by the candidate
	18. Using the User's Manual, state the cold-starting procedure for the IC engine.
	A
l	



A30

Technical Test - Theory

Tripod

19. When a tripod rig has been assembled and configured for work: a) what must be carried out before work starts and b) by whom? Α 20. If checking the oil level using a dipstick, why must gloves be worn? Α 21. Name THREE ways that the winch may be driven. Preparing for work continued 22. Where would you find the dolly on a percussive driven hammer? 23. a) In what sort of environments are tripod rigs normally used and b) why? Α 24. Apart from the operator, who else may need to use the User's Manual? Α 25. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap. Α 26. What particular and specific hazards can affect the stability of the rig when working on old industrial (Brownfield) sites? Α 27. What checks and procedures need to be made before a 'permit to dig' can be issued? Setting up for work Α 28. If setting up to work in a pedestrianised area, what factors should be taken into account? 29. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden pylons when setting up the rig and b) explain why a distance should be kept. Α



Tripod

A30

	30. What is meant by 'toeing in' when referring to the piling activity?
	A
	31. Name TWO purposes of the driving shoe fitted to the tip of the pile or driving tube.
	A
	32. What is meant by the term 'refusal'?
	A
	33. What is meant by the term 'raking angle'?
	A
ks	34. What is a 'driven cast in-situ' pile?
Working tasks	A
Work	35. 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 lifting operation and b) who authorises any changes?
	A
	36. How can the noise level of the hammering operation be reduced on: a) pre-cast types and b) cast in-situ types?
	A
	37. Why are driven piles generally used on contaminated sites?
	A
	38. What is meant by 'open hole' piling?
	A
eting	39. Before leaving the rig for a rest break, after switching off the power unit, what final action must be carried out?
Completing work	A
UWN	40. Why should the diesel engine of the rig be re-fuelled at the end of the day?
Shutdown	A



Ride-on Roller

A31

Technical Test - Theory

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

	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 ride-on roller?
pen	A
es contin	11. The operator has to use a new type of ride-on roller that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
ısibiliti	A
Roles and responsibilities continued	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
oles aı	A
æ.	13. How can a qualification or card benefit a plant operator?
	A
	 Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	15. Where should the ride-on roller's Operator's Manual be kept and why?
	A
	If the operator has to fill the fuel tank, state TWO precautions to ensure cleanliness of the system.
work	A
Preparing for work	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
Preparir	17. Using the Operator's Manual, state the procedure for positioning and adjusting the scraper bars. For tyred machine, state the tyres' operating pressure.
	A
	18. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A

	19. On articulated ride-on rollers, 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
	20. If checking the oil level using a dipstick, why must gloves be worn?
Preparing for work continued	A
ork co	21. Apart from the operator, who else may need to use the machine's Operator's Manual?
g for w	A
eparin	22. What is the purpose of a ROPS cab or frame?
Q S	A
	23. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	24. On articulated ride-on rollers, the two halves of the chassis can oscillate (or twist). What is the purpose of this?
	A
	25. The roller has to be travelled up a slope. What should be checked before starting?
5 0	A
euvring	26. What problems and hazards can soft ground cause to a ride-on roller?
nd mano	A
Travelling and manoeu	27. a) What is the minimum distance allowed near open trenches when travelling with a ride-on roller and b) explain why.
Tra	A
	28. 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

	29. If travelling on wet soils, what effect does this have on the ride-on roller?
penu	A
g contir	30. Why must the seat belt be worn at all times, even though a ROPS frame is fitted?
Travelling and manoeuvring continued	A
lling and n	31. Give THREE possible reasons why ride-on rollers should not stray off the designated travel routes.
Trave	A
	32. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
	A
or work	33. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles and b) explain why a distance should be kept.
Setting up for work	A
SS	34. Before starting work, name SIX checks that should be made to the compacting area.
	A
	35. When working in a confined area or space, what danger can be present with an articulated ride-on roller with regards to steering?
S	A
Working tasks	36. When working in a confined area or space, name THREE hazards that can occur.
Workir	A
	37. What are the TWO aims of compaction?
	A

	38. What is meant by deadweight rolling?
	A
	39. Why should the vibration system not be engaged whilst the roller is stationary on soft ground?
	A
	40. What is generally accepted as a rolling pass?
	A
	41. Where should the first pass be made if rolling a cross-fall or camber?
	A
	42. When would a low frequency amplitude (or vibration) generally be used?
	A
	43. By how many times is a vibratory pass more effective than a deadweight pass?
penu	A
; conti	44. Name FOUR factors that determine the number of rolling passes.
Working tasks continued	A
Worki	45. In general, what types of material are usually used as a sub-base?
	A
	46. What is regarded as the commonest cause for poor compaction?
	A
	47. What is meant by consolidation?
	A
	48. What thickness of soil should be compacted before another layer is laid?
	A
	49. If compacting on a gradient: a) what is the rolling procedure and b) explain why.
	A
	50. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A

ng work	51. Before leaving the cab or seat for a rest break, after parking and switching off the machine, what final action must be carried out?
Completing work	A
	52. When parking the machine at the end of the shift, name THREE places where the ride-on roller should NOT be parked.
	A
	53. Why should a ride-on roller be re-fuelled at the end of the day?
Shutdown	A
Shı	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



Soil/Landfill Compactor

Δ32

Technical Test - Theory

	A Milestic the definition of an house on a home of the description 10
	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
Roles and responsibilities	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
ponsi	A
nd res	
es ar	
Rol	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 A
	 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

	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 compactor?
	A
per	11. The operator has to use a new model of compactor that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
continu	A
Roles and responsibilities continued	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
uodsə.	A
oles and r	13. Give TWO examples of where The Work at Height Regulations 1995 may apply to compactor operations.
R	A
	14. How can a qualification or card benefit a plant operator?
	A
	15. Name THREE ways that a compactor operator can contribute in maintaining business with the client or contractor.
	A
	16. Where should the compactor's Operator's Manual be kept and why?
	A
for work	17. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
Preparing for work	A
T	18. What is the purpose of a roll or ROPS frame?
	A

ing for work contin	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 procedures for cleaning the radiator.
	A
	20. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	21. Name: a) FOUR health hazards that are particular to landfill areas and b) what precautions may be taken.
	A
	22. If checking the oil level using a dipstick, why must gloves be worn?
	A
	23. a) What is meant by blade capacity and b) how is it determined?
	A
	24. What are the TWO aims of compaction?
	A
	25. What is the purpose of the 'striker bars'?
	A
	26. Name three different types of landfill methods.
	A
	27. What is the result of well compacted fills?
	A
	28. What is meant by 'inert waste'?
	A

	29. On soil compaction, what type of soil is a sheepsfoot compactor best suited to?
	A
	30. Which main component parts of the compactor is subject to trash or waste build-up?
pen	A
contin	31. Apart from the operator, who else may need to use the machine's Operator's Manual?
r work	A
Preparing for work continued	32. Describe one method that keeps debris from sticking to the wheel tips.
Prepa	A
	33. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	34. Most compactors have an articulated chassis that swivels or pivots in the centre. One pivot plane or angle (looking from the top) provides the steering (articulation), what is the function of the other pivot plane or angle i.e. looking from the front (oscillation)?
	A
	35. a) Give ONE advantage and b) TWO disadvantages of rear mounted cameras.
Đ _i	A
Travelling and manoeuvring	
d mano	36. Name THREE conditions that mirrors must be in, on the machine.
ing and	A
Fravell	37. Why must the seat belt be worn, even with the cab door closed?
	A
	38. What problems and hazards can soft ground cause to a loaded compactor?
	A

	39. a) Name THREE purposes of the raised tips on the wheels and b) what can happen to a compactor if they are severely worn?
Travelling and manoeuvring continued	A
	40. a) What is the minimum distance allowed near any open trenches when travelling with a compactor and b) explain why.
anoeuvrir	A
elling and ma	41. On articulated compactors, 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?
Trav	A
	42. Give THREE reasons that may cause the compactor to tip over sideways.
	A
work	43. Before manually changing any blade: a) where should the blade be positioned (in relation to the ground) before removing the final pin and b) why?
	A
v Joj dr	44. What is the recommended maximum slope ratio?
Setting up for work	A
ÿ	45. Why should the compactor operator have an understanding of the type of material being moved and spread?
	A
	46. When working in a confined area or space, name THREE hazards that can occur.
	A
asks	47. What are the purposes of the refuse screen mounted on top of the blade?
Working tasks	A
	48. When would a 'U' blade be used over a straight blade?
	A

L-----

	49. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when working and b) explain why a distance should be kept.
	A
	50. If fitted, what can the float function on the blade allow?
	A
	51. Wherever possible, why should the compactor be aligned before making the next pass or cut?
per	A
continu	52. What is the ideal thickness to spread and compact material during each phase?
Working tasks continued	A
	53. What could happen if incompatible waste was mixed?
	A
	54. What determines the number of passes?
	A
	A 55. Why is moisture a benefit to soil and material compaction?
	55. Why is moisture a benefit to soil and material compaction?
	55. Why is moisture a benefit to soil and material compaction? A 56. When pushing material, why should the blade be feathered before reaching the end of the
	55. Why is moisture a benefit to soil and material compaction? A 56. When pushing material, why should the blade be feathered before reaching the end of the run?
g work	55. Why is moisture a benefit to soil and material compaction? A 56. When pushing material, why should the blade be feathered before reaching the end of the run? A 57. What is the recommended depth of earth cover which is spread over a compacted waste
ompleting work	55. Why is moisture a benefit to soil and material compaction? A 56. When pushing material, why should the blade be feathered before reaching the end of the run? A 57. What is the recommended depth of earth cover which is spread over a compacted waste area at the end of the day?
Completing work	55. Why is moisture a benefit to soil and material compaction? A 56. When pushing material, why should the blade be feathered before reaching the end of the run? A 57. What is the recommended depth of earth cover which is spread over a compacted waste area at the end of the day? A 58. Before leaving the cab for a rest break, after parking and switching off the machine, what
Shutdown Completing work	55. Why is moisture a benefit to soil and material compaction? A 56. When pushing material, why should the blade be feathered before reaching the end of the run? A 57. What is the recommended depth of earth cover which is spread over a compacted waste area at the end of the day? A 58. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?

	60. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
Shutdown continued	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
Shutd	62. 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
	63. Why should a compactor be re-fuelled at the end of the day?
	Α



Agricultural Tractor

V 3 3

Technical Test - Theory

	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
onsibilities	What THREE main duties of the Health and Safety at Work Act must employees follow?
Roles and responsibilities	A
Rok	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
	 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

	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	Α
	10. Where required, in what situation does a hard hat NOT need to be worn when operating an agricultural tractor?
nued	A
Roles and responsibilities continued	11. The operator has to use a new type of implement that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
sibilit	A
respons	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
s and	A
Role	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 agricultural tractor's Operator's Manual be kept and why?
	A
	16. What is a possible consequence of using a tyre with a deep cut in the sidewall?
Preparing for work	A
	17. If the operator has to top-up the transmission oil, state TWO precautions to ensure cleanliness of the system.
	A
	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 tyres' operating pressure.
	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 a ROPS cab?
	A
	23. How are agricultural tractors classified?
penu	Α
contir	24. Why should a linch pin/safety pin be fitted to the drawbar pin after connecting a trailer?
r work	A
Preparing for work continued	25. What speeds may PTO shafts be normally driven at?
Prepa	A
	26. What is the function of an 'automatic pick-up hitch'?
	A
	27. Describe one application when the hand throttle can safely be used
	A
	28. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
vring	29. a) Name THREE purposes of the raised lugs on tyres and b) what can happen to an agricultural tractor if the lugs are severely worn?
Travelling and manoeuvring	A
ng anc	30. What problems and hazards can soft ground cause to an agricultural tractor?
Travelli	A
L	

	31. An operator has to travel the tractor on the public highway, for which The Road Traffic Act applies. List SIX requirements that must be followed.
	A
	32. a) When should 4-wheel drive not be selected and b) explain why?
	A
	33. a) What is the minimum distance allowed near open trenches when travelling with an agricultural tractor and b) explain why.
penu	A
uvring contir	34. 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?
Travelling and manoeuvring continued	A
Travell	35. When travelling on wet clay, what effect does this have on the agricultural tractor?
	A
	36. Why must the seat belt be worn at all times, even with the cab door closed?
	A
	37. Give THREE possible reasons why agricultural tractor should not stray off the designated travel routes.
	A
	38. If setting up to work in a pedestrianised area, state THREE factors that need to be taken into account.
Setting up for work	A
Setting u	39. If applicable, whenever possible, who should decide the positioning of the tractor and trailer when being loaded?
	A

	40. The operator is asked to tip material from a trailer into a trench. State FIVE different requirements that must be considered or implemented before tipping commences.
Setting up for work continued	A
up for v	41. On trailer operations, give TWO reasons why the tractor operator should have an understanding of the type of spoil being transported.
Setting	A
	42. Why should hydraulic pipe connections be cleaned before re-connecting to the implement and/or tractor?
	A
	43. Before uncoupling a trailed implement, what should be ensured?
	A
	44. Why should the driven speed of a PTO driven implement be checked before attaching to the tractor?
ķ	A
Working tasks	45. Which parts of the shaft must PTO shaft guarding cover?
Work	A
	46. If a higher operating speed (1000 rpm) is selected for an implement designed to run at the lower speed (540 rpm), what may occur during operation?
	A
	47. What may happen if turning too tight whilst driving a PTO trailed implement?
	A
	48. When working in a confined area or space, name THREE hazards that can occur.
	A

	49. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles if tipping loads and b) explain why a distance should be kept.
	A
	50. a) Why should the body of the trailer be raised slowly/carefully when discharging wet or sticky material and b) what would be a consequence if this was not done?
	A
	51. Who should determine the maximum load that should be placed into the trailer?
	A
inued	52. State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
Working tasks continued	A
Norking t	53. When tipping a load, the centre of gravity of the trailer changes. a) How does this affect the trailer and b) state TWO actions to avoid accidents?
	A
	54. If a load has to be tipped on a slope, what may happen if the load is tipped downhill?
	A
	55. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	56. Operators should lower the trailer fully before driving away. Give TWO possible consequences if this is not carried out.
	A
	57. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
) work	A
Completing work	58. On tractors equipped with powershift transmissions, manufacturers state that the parking brake is to be fully applied when parking, and not just leaving the machine in gear. Explain why.
	A

Shutdown	When parking the machine at the end of the shift, name THREE places where the tractor should NOT be parked.
	A
	60. Larger agricultural tractors tend to have a turbo-charged engine. a) What is the normal procedure before switching off the engine after working and b) what happens if the procedure is not followed?
	A
	61. Why should an agricultural tractor 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



Crawler-Tractor/Dozer

A34

Technical Test - Theory

	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
es	
sibiliti	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
Roles and responsibilities	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
	 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

Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
A
In what situation does a hard hat NOT need to be worn when operating a crawler-tractor/dozer?
A
11. The operator has to use a new dozer 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
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 dozer'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
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.
A
18. Using the Operator's Manual, state the cold-starting procedure for the machine.
A

	19. a) What is the purpose of the track guard or guards and b) where would it/they be located?
	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. List FIVE checks that should be made to the tracks and running gear.
	A
tinued	23. a) How do low ground pressure units differ from standard type dozers and b) where would they be used?
Preparing for work continued	A
for wo	24. Apart from the operator, who else may need to use the machine's Operator's Manual?
oaring	A
Prep	25. a) What is the function of 'Grousers' or 'Cleats' as found on track pads and b) what is the result if excessively worn?
	A
	26 During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	27. How does a PAT blade work?
	A
	28. What is the difference between a tilting blade and an angle blade?
	A
Travelling and manoeuvring	29. What action does 'counter-rotation' of the tracks produce?
	A
	30. Why do dozers have an undercarriage suspension system?
	A

and	31. Why must the seat belt be worn, even with the cab door closed?
elling a	A
Travelling and manoeuvring	
	32. Name TWO types of equipment used to ensure that excavation levels, measurements and positions are to the required specification.
	A
	33. Before removing a blade: a) how should the blade be positioned (in relation to the ground) before removing the final pin and b) why?
	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. a) What is meant by blade capacity and b) how is it determined?
yr.	A
Setting up for work	36. If setting up to excavate a slot in a confined area, name TWO things that should be taken into account before starting.
Setting	A
	37. What particular and specific hazards can affect the stability of the machine when working on old industrial (Brownfield) sites?
	A
	38. If setting up to work next to a pedestrianised area, state THREE factors that need to be taken into account.
	A
	39. The operator is asked to cut a new trench. State FIVE different requirements that must be considered or implemented before work commences.
	A
	continued

[40. What THREE things should be checked out before carrying out embankment work?
	A
penu	41. What problem may occur if the wearing plates on the blade are at the maximum wear limit?
conti	A
Setting up for work continued	42. 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.
Setting u	A
	43. If a trench has a depth of 2.0 metres: a) what is the minimum distance to maintain from the edge of the trench when travelling and b) explain why.
	A
	44. Why should different soils be segregated during excavating?
	A
	45. When working on a diagonal side hill cut, how should the blade be angled?
	A
	46. Why is it poor practice to reverse the dozer at high speed?
	A
tasks	47. Why is 'back-blading' (using the back of the blade to drag material) not considered good practice?
Working 1	A
M	48. Give TWO reasons why the operator should have an understanding of the type of material being dozed.
	A
	49. What hazards might arise whilst filling in an excavation with soil?
	A
	50. If fitted, what function can the float on the blade allow?
	A

	51. Give TWO reasons why, wherever possible, operators should excavate ground in layers.
	A
	52. If a yellow coloured marker tape is unearthed during excavating, which two types of services could this indicate?
	A
	53. What is the nearest distance allowed to gas pipes when excavating with the machine?
	A
penu	54. a) What effect on dozer operations does making too deep a cut have and b) what effect does making too shallow a cut have?
Working tasks continued	A
king ta	55. Wherever possible, why should the dozer be aligned before making the next pass or cut?
Wor	Α
	56. When backfilling trenches, why should the blade be feathered before reaching the trench?
	A
	57. Describe TWO actions to be taken for an open trench at the end of a working day.
	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.
Shutdown	A
Shu	60. How can tracks be prevented from becoming frozen to the ground during cold weather?
	A
l	

Technical Test - Theory

	61. Many dozers 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
	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.
Shutdown continued	A
Shutdo	63. 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
	64. Why should a dozer be re-fuelled at the end of the day?
	A



Crawler Tractor/Side Boom

A35

Technical Test - Theory

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

	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	 State the functions or job role of the following personnel: a) Appointed Person, b) Crane Supervisor, c) Slinger, d) Signaller
	A
þ	11. In what situation does a hard hat NOT need to be worn when operating a sideboom?
ntinue	A
Roles and responsibilities continued	12. The operator has to use a new model of sideboom that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the operator to have?
sponsik	A
es and re	13. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
Role	A
	 Give TWO examples of where The Work at Height Regulations may apply to sideboom operations.
	A
	15. How can a qualification or card benefit a sideboom operator?
	A
	 Name THREE ways that a sideboom operator can contribute in ensuring repeat business with the client or main contractor.
	A

Technical Test - Theory

17. Where should the Operator's Manual be kept and why?
Α
18. What is the difference between a contract lift and a 'standard' hire?
A
19. a) What is meant by the lifting capacity of the sideboom and b) who determines it?
A
20. What is the purpose of a roll or ROPS frame?
A
21. List FIVE checks that should be made to the tracks and running gear.
A
22. What are the THREE actions or stages that a side boom 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 setting the track tension.
A
24. Using the Operator's Manual, state the cold-starting procedure for the machine.
A
25. What is the purpose of extending the counterweight?
A
26. A sideboom has been delivered to site, assembled and configured for lifting. What must be carried out before lifting starts and by whom?
A

Technical Test - Theory

[
	27. If checking the oil level using a dipstick, why must gloves be worn?
	A
ntinued	28. Apart from the operator, who else may need to use the machine's Operator's Manual?
contin	A
for work	29. a) How does the number of lines or falls of rope affect the lifting capacity for the sideboom and b) how is hoist speed affected when the number of lines (or falls of rope) is reduced?
Preparing for work continued	A
Pre	30. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	31. If the sideboom 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
euvring	32. a) What is the minimum distance allowed near open trenches when travelling the sideboom and b) explain why.
avelling and manoeuvring	A
lling ar	33. When MUST a banksman or signaller be used before moving a sideboom?
Trave	A
	34. Why must the seat belt be worn if a ROPS frame or cab is fitted?
	A
	35. a) Which part of the sideboom applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
for work	A
Setting up for work	36. If a load of 20 tonnes is lifted on 4 falls or lines of rope, what is the tension in each fall or line?
O)	A
L	

	 When travelling with a suspended load, name FIVE factors that must be taken into account by the operator before moving.
	A
	38. What is meant by load overhang?
	A
ntinued	39. Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
ork cor	A
for we	40. What is the main purpose of the Rated Capacity Indicator (RCI)?
Setting up for work continued	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
	42. On a busy site, how would the slinger/signaller be identified to the sideboom operator?
	A
	43. The number of falls has been changed on the hook block. How has this action affected the RCI?
	A
s	44. The safe working load or working load limit (SWL/WLL) of a multi-leg sling only applies in what TWO conditions or configuration?
Working tasks	A
Workir	45. Name TWO things that happen if the hoist rope is not vertical when lifting a load.
	A
	46. Give FOUR reasons that may cause the sideboom to overturn.
	A

	7. If radios are to be used during the lifting operations, what FIVE actions and checks must made by the sideboom operator before use?	be
	8. What makes up the total (or gross) weight of a load that is to be lifted?	
	9. During the lifting operation, part of the task cannot be carried out as detailed in the lift pla a) What initially must happen to the lifting operation and b) who authorises any changes?	
per	0. If the hook block inadvertently (accidentally) lands, what course of action should be taken	า?
Working tasks continued		
g tasks	What effect can a swinging load have on a sideboom?	
Vorkin		
>	2. If the words STOP NOW are given to the sideboom operator by radio during the lift, what action must the operator take?	:
	3. Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum lot that can be lifted?	oad
	4. State the possible effect of lifting downhill on a slope.	
	5. Sidebooms are working in the same vicinity that encroach the operating radius of a crawler crane. What actions would the lift plan or method statement normally specify?	er
eting k	6. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?	
Completing work		

Technical Test - Theory

	57. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
	58. 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.
Shutdown	A
	59. If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?
	A
	60. Why should the sideboom be re-fuelled at the end of the day?
	A



Lorry Loader

A36

Technical Test - Theory

1.	What is the definition of, or how can a hazard be described?
Α	
2.	What is the purpose of a risk assessment?
Α	
3.	List SIX typical subject areas that should be covered in a site induction.
Α	
	What TUDEE main duties of The Health and Cofety at Work Ast must employees follow
	What THREE main duties of The Health and Safety at Work Act must employees follow
Α	
5.	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
Α	
6.	a) What is the purpose of a Method Statement and b) what is required of the operator?
Α	
7.	Name FOUR different types or levels of sanctions that can be applied (by employers ar judicial bodies) to operators who do not comply with, or follow legislation and regulation
Α	
8.	Lorry loader operators are generally regarded as 'safety-critical' workers. What does the mean?
Α	

	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
	A
	State the functions or job role of the following personnel: a) Appointed Person, b) Crane Supervisor, c) Slinger, d) Signaller
	A
ō	11. If required, in what situation does a hard hat NOT need to be worn on site when operating a lorry loader?
ntinue	A
Roles and responsibilities continued	12. The operator has to use a new attachment that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the operator to have?
ponsik	A
s and res	13. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
Roles	A
	14. Give TWO examples of where The Work at Height Regulations may apply to lorry loader operations.
	A
	15. How can a qualification or card benefit a lorry loader operator?
	A
	16. Name THREE ways that a lorry loader operator can contribute in ensuring repeat business with the client or main contractor.
	A
	17. Where should the Operator's Manual be kept and why?
×	A
ır worl	18. a) What is meant by the lifting capacity of the lorry loader and b) who determines it?
Preparing for work	A
Prep	19. What are the THREE actions or stages that a lorry loader operator undertakes during pre- use inspections?
	A

F	or 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 which components may need greasing.
Α	
21.	Using the Operator's Manual, state the hydraulic tank oil capacity OR oil type.
A	
22.	Which parts of the lorry loader is the radius (for lifting) measured from?
Α	
23.	If checking the oil level using a dipstick, why must gloves be worn?
Α	
24.	Apart from the operator, who else may need to use the machine's Operator's Manual?
Α	
25.	What is the purpose of stabilisers on the lorry loader?
Α	
26.	What are the THREE actions that should be undertaken during pre-use inspections on lifting accessories?
Α	
27.	As stamped on lifting accessories, what do the letters SWL signify?
Α	
28.	Polyester webbing slings are coloured and have black lines. What do the different colours and number of lines indicate?
Α	
29.	a) What is meant by a 'knuckle-boom' crane and b) what advantage do they have over straight boom cranes?
Α	
30.	Name FOUR attachments that may be fitted to a lorry loader.
Α	

	31. What information must be found on the loader's rating plate?
	A
nued	32. What is the function of a motion limiter?
conti	A
or worl	33. When would an extension be fitted and used?
Preparing for work continued	A
Prepa	34. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
	35. Prior to travelling the machine on the public highway, describe four items to be taken into account when planning a route.
	A
euvring	36. If the lorry loader host vehicle is being used 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?
d manoe	A
Travelling and manoeuvring	37. a) What is the minimum distance allowed near open trenches when travelling the lorry loader on a site and b) explain why.
Trav	A
	38. On many construction sites, when MUST a banksman or signaller be used before moving a lorry loader?
	A
	39. a) Which part of the lorry loader applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
¥	A
Setting up for work	40. If fitting an extension to the lorry loader, why is it important that the manufacturers' procedures are followed precisely?
etting u	A
Š	41. What is the main purpose of the Rated Capacity Indicator (RCI)?
	A
l	

	42. If setting up to lift loads in a pedestrianised area, state THREE factors that need to be taken into account.
	Α
	43. Who only can authorise partial stabiliser extensions and b) what is the effect on lifting capacity if partially extending the outriggers?
	A
	44. What information is needed when estimating the weight of a load?
	A
	45. What is meant by 'outreach'?
	A
ıtinued	46. Describe FIVE factors to be taken into account when planning a lift.
	A
or So	47. Prior to placing loads on to the vehicle bed, explain FOUR items to be taken into account.
for we	A
Setting up for work continued	48. Name THREE possible underground hazards which may affect the stability of the vehicle during lifting operations.
O)	A
	49. If using a lorry loader from a fixed position operating station, what should be ensured for the safety of the operator?
	A
	50. a) What should be fitted to the hook of a lorry loader and b) why?
	A
	51. What checks should be made to the transmitter of a remote-controlled loader before work?
	Α
	52. What is meant by centre of gravity, or how is the Centre of Gravity determined, on a load to be lifted?
	Α

Setting up for work continued	53. If setting up to work near a bank, what is the recommended minimum distance between the stabilisers and the top of the bank?
	A
	54. 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.
Sett	A
	55. 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
	56. Name TWO things that happen if a load is not lifted vertically.
	A
	57. Give FOUR reasons that may cause the lorry loader to overturn.
	A
	58. What makes up the total (or gross) weight of a load that is to be lifted?
sks	A What makes up the total (or gross) weight of a load that is to be lifted?
orking tasks	
Working tasks	A 59. During the lifting operation, part of the task cannot be carried out as detailed in the lift plan.
Working tasks	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?
Working tasks	 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. If a heavy load is being slewed at high speed over at least 180 degrees, what TWO factors
Working tasks	 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. If a heavy load is being slewed at high speed over at least 180 degrees, what TWO factors must the operator take into account?
Working tasks	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. If a heavy load is being slewed at high speed over at least 180 degrees, what TWO factors must the operator take into account? A
Working tasks	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. If a heavy load is being slewed at high speed over at least 180 degrees, what TWO factors must the operator take into account? A 61. a) When is a trial lift carried out and b) name THREE checks to be made?

63. If a load has to be held suspended, what must the operator do? A 64. Name THREE ways in which wind speed can affect the lifting operation. A 65. If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take? A 66. Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted? A 67. When slewing with a load, where should the operator be looking? A 68. What is the meaning of this hand signal (being demonstrated by the Tester)? A 69. State the possible effect of lifting downhill on a slope. A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the lifting operation. A		
64. Name THREE ways in which wind speed can affect the lifting operation. A 65. If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take? A 66. Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted? A 67. When slewing with a load, where should the operator be looking? A 68. What is the meaning of this hand signal (being demonstrated by the Tester)? A 69. State the possible effect of lifting downhill on a slope. A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the		63. If a load has to be held suspended, what must the operator do?
A 65. If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take? A 66. Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted? A 67. When slewing with a load, where should the operator be looking? A 68. What is the meaning of this hand signal (being demonstrated by the Tester)? A 69. State the possible effect of lifting downhill on a slope. A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the		A
65. If the words STOP NOW are given to the crane operator by radio during the lift, what action must the operator take? A 66. Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted? A 67. When slewing with a load, where should the operator be looking? A 68. What is the meaning of this hand signal (being demonstrated by the Tester)? A 69. State the possible effect of lifting downhill on a slope. A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the		64. Name THREE ways in which wind speed can affect the lifting operation.
must the operator take? A 66. Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted? A 67. When slewing with a load, where should the operator be looking? A 68. What is the meaning of this hand signal (being demonstrated by the Tester)? A 69. State the possible effect of lifting downhill on a slope. A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the		A
66. Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted? A 67. When slewing with a load, where should the operator be looking? A 68. What is the meaning of this hand signal (being demonstrated by the Tester)? A 69. State the possible effect of lifting downhill on a slope. A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the		
68. What is the meaning of this hand signal (being demonstrated by the Tester)? A 69. State the possible effect of lifting downhill on a slope. A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A		A
68. What is the meaning of this hand signal (being demonstrated by the Tester)? A 69. State the possible effect of lifting downhill on a slope. A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A	panu	
68. What is the meaning of this hand signal (being demonstrated by the Tester)? A 69. State the possible effect of lifting downhill on a slope. A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A	ks con	A
68. What is the meaning of this hand signal (being demonstrated by the Tester)? A 69. State the possible effect of lifting downhill on a slope. A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A	ng tasl	67. When slewing with a load, where should the operator be looking?
68. What is the meaning of this hand signal (being demonstrated by the Tester)? A 69. State the possible effect of lifting downhill on a slope. A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A	Worki	A
69. State the possible effect of lifting downhill on a slope. A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A		68. What is the meaning of this hand signal (being demonstrated by the Tester)?
A 70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the		A
70. A lorry loader is working in the same vicinity of another crane, encroaching on the operating radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the		69. State the possible effect of lifting downhill on a slope.
radius. What actions would need to be taken? A 71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the		A
71. Before leaving the cab for a rest break, after parking and switching off the vehicle, what final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the		
final action must be carried out? A 72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the		A
72. Where the loader crane cannot be folded e.g. bucket or clamshell equipped, what TWO checks must be carried out before the vehicle rejoins the public highway? A 73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the		
73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the		A
73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the	ng work	
73. Before rejoining the public highway after completing work, what check must be made to the stabilisers? A 74. Name THREE places where the vehicle should NOT be parked after completion of the	Completin	Α
74. Name THREE places where the vehicle should NOT be parked after completion of the		
74. Name THREE places where the vehicle should NOT be parked after completion of the lifting operation. A		Α
Shuff.	lown	
	Shutd	A



Trencher

A37

Technical Test - Theory

	What is the definition of, or how can a hazard be described?
	A
	2. What is the purpose of a risk assessment?
	A
	List SIX typical subject areas that should be covered in a site induction.
	A
ilities	4. What THREE main duties of the Health and Safety at Work Act must employees follow?
ponsib	A
d res	
Roles and responsibilities	5. What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
Ř	A
	6. a) What is the purpose of a Method Statement and b) what is required of the operator?
	A
	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?
	Α

	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 trencher?
pe	A
Roles and responsibilities continued	11. The operator has to use a new type trencher that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
sibilitie	A
nd respon	12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
toles ar	A
Œ	13. How can a qualification or card benefit a plant operator?
	A
	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
	A
	15. Where should the trencher's Operator's Manual be kept and why?
or work	A
Preparing for	16. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
Pre	A
L	

	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 the digging chain tension.
	A
	18. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	19. What is the purpose of a roll or ROPS frame?
	A
	20. If checking the oil level using a dipstick, why must gloves be worn?
penu	A
c contil	21. What is the purpose of the 'creep speed' transmission?
Preparing for work continued	A
aring fe	22. Apart from the operator, who else may need to use the machine's Operator's Manual?
Prep	A
	23. What is the purpose of the crumber?
	A
	24. Name the main parts of the trenching unit.
	A
	25. Why do most trenchers use hydrostatic transmission drive?
	A
	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
	A
g and vring	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?
Travelling and manoeuvring	A

Trencher A3

Technical Test - Theory

Travelling and manoeuvring continued	28. Name: a) TWO advantages of using a wheeled-chassis trencher and b) TWO advantages of using a tracked-chassis trencher.
	A
euvrin	29. What problems and hazards can soft ground cause to a trencher?
nd manoe	A
alling a	30. Why must the seat belt be worn, even though a ROPS frame or cab is fitted?
Trave	A
	31. Name FIVE possible underground services that may be encountered prior to excavating.
	A
	32. What sort of spoil can be extracted if there is one tooth for every second chain segment on the digging chain?
	A
	33. What may happen if the digging chain tension is too tight?
	A
	34. Give TWO instances of using the off-set position of the trenching unit.
vork	A
up for work	35. How is the spoil prevented from falling back into the trench?
Setting u	A
Ϋ́	36. Give TWO reasons why the operator should have an understanding of the type of spoil being excavated.
	A
	37. Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?
	A
	38. Name TWO types of equipment used to ensure that excavation levels, measurements and positions are to the required specification.
	A

Trencher A37

Technical Test - Theory

g
า
ust
1
r

Trencher A37

Technical Test - Theory

	49. If an object becomes jammed in the chain, what procedures would be used?
	A
	50. When cutting concrete, name ONE danger to the operator and others in the working area.
	A
	51. If fitted, what is the purpose of the flywheel on the digging chain?
pen	A
Working tasks continued	52. What TWO ways are there of keeping the cut vertical on uneven ground on a tracked trencher?
ng tas	A
Worki	53. If a yellow coloured marker tape is unearthed during excavating, which two types of services could this indicate?
	A
	54. What is the nearest distance allowed to gas pipes when excavating with the machine?
	A
	55. What is the meaning of this hand signal (being demonstrated by the tester)?
	A
	56. Describe TWO actions to be taken for an open trench at the end of a working day.
vork	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?
Con	A
	58. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
	A
Shutdown	59. 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	60. 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 machine?
	A
	61. Why should a trencher be re-fuelled at the end of the day?
S	A



Skip Handler

A39

Technical Test - Theory

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

	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 skip handler?
	A
tinued	11. The operator has to use a new type of skip handler that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
ss cont	A
Roles and responsibilities continued	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
d resp	A
les an	13. Give TWO examples of where The Work at Height Regulations may apply to skip handlers.
8	A
	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 skip handler's Operator's Manual be kept and why?
	A
	17. What is a possible consequence of using a tyre with a deep cut in the sidewall?
	A
	18. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
	A

	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 tyres' operating pressure.
	A
	20. Using the Operator's Manual, state the cold-starting procedure for the machine.
	A
	21. If checking the oil level using a dipstick, why must gloves be worn?
penu	A
conti	22. Apart from the operator, who else may need to use the Driver's Manual?
Preparing for work continued	A
ing fo	23. What checks should be made to the lifting accessories (chains)?
^{>} repar	A
	24. Name THREE conditions that the mirrors on the machine must be in.
	A
	25. On start up, the air pressure on the machine is low. What actions must the operator carry out before work and during work?
	A
	26. 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	27. Prior to planning a route using the public highway, what FOUR items should be taken into account?
	A
	28. What problems and hazards can soft ground cause to a loaded skip handler?
	A
avellin	29. a) Give ONE advantage and b) TWO disadvantages of rear mounted cameras.
Tra	A

	30. a) What is the minimum distance allowed near open trenches when travelling with a skip handler and b) explain why.
per	A
ontinu	31. When travelling on wet soil on site, what effect does this have on the skip handler?
ing co	Α
euvr	32. Why must the seat belt be worn at all times, even on site?
Travelling and manoeuvring continued	A
ravellin	33. Give THREE possible reasons why skip handlers should not stray off the designated haul routes.
-	A
	34. If setting up to load or deposit skips in a pedestrianised area, state THREE factors that need to be taken into account.
	A
	35. Whenever possible, who should decide the positioning of the skip handler if being loaded by a machine?
	A
	36. The operator is asked to tip material into a new trench. State FIVE different requirements that must be considered or implemented before tipping commences.
Setting up for work	A
Setting	37. Before accepting a loaded container for transport, give TWO pieces of information that a skip driver should know.
	A
	38. What do the letters SWL, as stamped on lifting accessories (chains), signify?
	Α
	39. Give TWO reasons why the skip handler operator should have an understanding of the type of material being transported.
	A

	40.	When working in a confined area or space, what danger can be present with an articulated skip handler with regards to steering?
	Α	
	41.	When working in a confined area or space, name THREE hazards that can occur.
	A	
	42.	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.
	Α	
	43	a) Why should a skip be raised slowly/carefully when discharging materials, especially with wet or sticky material and b) what would be a consequence if this was not done?
	A	
S	44.	Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted
ng task	Α	
Working tasks	45.	When would the tip hooks be used?
	Α	
	46.	What may occur if short bodies are being loaded on to a demountable chassis unit?
	A	
	47.	What makes up the total (or gross) weight of a load that is to be lifted?
	Α	
	48.	Who should determine the maximum load that should be placed onto the vehicle bed?
	A	
	49.	If using more than one sheet for load security, how should the sheets be placed?
	Α	
	50.	What effect can a swinging skip have on the vehicle?
	Α	

	51. a) When is a trial lift carried out and b) name THREE checks to be made?
	A
	52. State TWO requirements of using a stop block or earth bank (berm) at a trench discharging point.
	A
	53. When should the stabilisers or bogie blocking systems be used?
	A
penu	54. When tipping a load, the centre of gravity of the machine changes. a) How does this affect the skip handler and b) state TWO actions to avoid accidents?
(s contii	A
ıg task	55. Name FOUR checks that should be made to any netting before use.
Working tasks continued	A
	56. If a load has to be tipped on a slope, what may happen if the load is tipped downhill and why?
	A
	57. What is regarded as the most productive position for the skip handler to be in when being loaded by a wheeled loading shovel working from a stockpile?
	A
	58. What is the meaning of this hand signal (being demonstrated by the Tester)?
	A
	59. A skip is to be placed in a pedestrian area. What precautions must be undertaken after depositing the skip?
	A
y work	60. After tipping a skip at a landfill site, state THREE precautions to be taken before rejoining the public highway.
Completing work	A
	61. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?
	A

	62. When parking the machine at the end of the shift, name THREE places where the skip handler should NOT be parked.
	A
	63. Why should a skip handler be re-fuelled at the end of the day?
	A
	64. If the machine is being travelled or working on the public highway, the Road Traffic Act applies. a) What type of licence and which class should the operator hold and b) what is the minimum age allowed?
	A
Shutdown	
Shut	65. How are axle loadings calculated?
	A
	66. When is the only time that an overloaded vehicle is allowed to be driven on the public highway?
	A
	67. What is meant by Maximum Authorised Mass (MAM)?
	A
	68. What does the (new) driver Certificate of Professional Competence (CPC) require a driver to undertake every five years?
	A



Slinger/Signaller

A40

Technical Test - Theory

	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
lities	4. What THREE main duties of The Health and Safety at Work Act must employees follow?
onsibil	A
d resp	
Roles and responsibilities	5. What does The Health and Safety at Work Act require employers to do with regards specifically to plant?
Ľ	A
	6. a) What is the purpose of a Method Statement and b) what is required of the slinger/signaller?
	A
	 Name FOUR different types or levels of sanctions that can be applied (by employers and judicial bodies) to slingers/signallers who do not comply with, or follow legislation and regulations.
	A
	8. Slingers/signallers are generally regarded as 'safety-critical' workers. What does this mean?
	A

	Name THREE ways in which a slinger/signaller can minimise their impact upon the environment during lifting operations.
	A
	 State the functions or job role of the following personnel: a) Appointed Person, b) Crane Supervisor, c) Crane operator
	A
ntinued	11. The slinger has to use new lifting accessories that they are unfamiliar with. What do Regulations (i.e. LOLER 98) and other guidance require the slinger/signaller to have?
es co	A
Roles and responsibilities continued	12. What are the possible outcomes if being prosecuted for not complying with legislation and regulations?
d resp	A
des an	 Give TWO examples of where The Work at Height Regulations may apply to lifting operations.
<u>.</u>	A
	14. How can a qualification or card benefit a slinger/signaller?
	A
	15. Name THREE ways that a slinger/signaller can contribute in ensuring repeat business with the client or main contractor.
	A
	16. What is the difference between a contract lift and a 'standard' crane hire?
	A
	17. a) What is meant by the lifting capacity of the crane and b) who determines it?
Preparing for work	A
	18. What are the THREE actions that a slinger/signaller undertakes on lifting accessories during pre-use inspections?
Δ.	A
	19. Which parts of the crane is the radius (for lifting) measured from?
	A

	20. When checking the condition of lifting accessories, why must gloves be worn?
	A
	21. On what type of loads would a spreader beam be used? A 22. 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
Preparing for work continued	23. a) Name the component A of the lifting accessory on Annex A and b) state its function.
	A 24. What do the letters SWL signify, as stamped on lifting accessories?
g for v	A
Preparin	25. a) Name THREE different types of lifting accessories and b) state ONE advantage of each compared to other types of available lifting accessories.
	A
	26. When would a fly jib or lattice extension be fitted and used on a crane?
	A
	27. Polyester webbing slings are coloured and have black lines. What do the different colours and number of lines indicate?
	A
	28. a) Who is allowed to issue lifting accessory test certificates and b) when are they issued?
	A
	29. a) Which part of the crane applies loading or pressure to the ground and b) name TWO ways that pressure can be reduced.
Setting up for work	A
	30. If assisting in fitting a fly jib to the crane, why is it important that the manufacturers' procedures are followed precisely?
	A
Ø	31. Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?
	A
	continued

	32. On a busy construction site, how would the slinger/signaller be identified to the crane operator?
	A
	33. If the legs of a chain sling are more than 90 degrees apart from each other, what happens to the SWL?
	A
	34. What is meant by centre of gravity, or how is the centre of gravity determined, on a load to be lifted?
	A
	35. If setting up to lift loads in a pedestrianised area, state ONE factor that needs to be taken into account by the slinger/signaller.
	A
	36. During inspections, damage has been found to a lifting accessory. What TWO actions must be taken?
pen	A
Setting up for work continued	37. A 1 tonne webbing sling is attached to a load using a choke hitch. What is the maximum weight the accessory is allowed to lift?
	A
	38. What information is needed when estimating the weight of a load?
Setti	A
	39. When using more than one lifting accessory, how should they be secured to the crane hook?
	A
	40. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on metal pylons when setting up the lift and b) explain why a distance should be kept.
	A
	41. During a lift, it is suspected that a lifting accessory exceeded the rated capacity. What would be the course of action?
	A
	42. a) What is the type of sling shown as item B on the annex and b) what type of hitch is shown?
	A

	43. When must the signaller be used before moving a crane?
	A
	44. The safe working load (SWL) of a multi-leg chain sling only applies in what TWO conditions or configuration?
	A
	45. Give FOUR reasons that may cause a mobile crane to overturn.
	A
	46. If guiding a crane which is carrying a load near an open trench and the trench has a depth of 2.0 metres, what is the minimum distance to maintain?
	A
	47. If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the slinger/signaller before use?
Working tasks	A
Work	48. 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
	49. What makes up the total (or gross) weight of a load that is to be lifted?
	A
	50. 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
	51. If the hook block inadvertently (accidentally) lands, what course of action should be taken?
	A

52.	a) When is a trial lift carried out and b) name THREE checks to be made?
Α	
53.	A tower crane is slewing a heavy load at high speed over at least 180 degrees. What TWO factors must the slinger take into account?
Α	
54.	How does the rope or line length affect loads swings?
Α	
55.	Name THREE ways in which wind speed can affect the lifting operation.
Α	
56.	Why must the hoist rope of the crane be kept vertical before lifting loads?
Α	
57.	If a load is slewed rather quickly, what TWO initial effects does it have on the load whilst slewing?
Α	
58.	If the words STOP NOW are given to the crane operator by radio from the signaller during the lift, what action must the operator take?
Α	
59.	Only two legs of an 8 tonne 4 legged chain sling are being used. What is the maximum load that can be lifted with that sling?
Α	
60.	What possible effects does excessive rain have on the lifting operation?
Α	
61.	State the possible effect of lifting downhill on a slope.
Α	

Technical Test - Theory

Working tasks continued	62. How does the deflection of the boom or jib affect lift?
	A
	63. 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
¥	64. What are the ideal conditions for lifting accessories to be stored?
ng woi	A
Completing work	65. What checks should be made to lifting accessories after work has ceased?
	A