

**Technical test - Theory**

**Slinger/Signaller A40**

**Questions Only - MSLO Pack**

No.	Question	Answers	Max. Mark
1	On what type of loads would a spreader beam be used?		1
2	How can a qualification or card benefit a slinger/signaller?		1
3	On hoist-rope lifting equipment, how does the rope or line length affect loads swings?		1
4	When checking the condition of lifting accessories, why must gloves be worn?		1
5	What possible effects does excessive rain have on the lifting operation?		2
6	What makes up the total (or gross) weight of a load that is to be lifted?		3
7	What does The Health and Safety at Work Act require employers to do with regards specifically to plant?		3
8	a) When is a trial lift carried out and b) name THREE checks to be made?		4
9	Before being guided by a signaller for a pick and carry duty, what instruction should be given to the machine operator by the signaller if they lose sight of each other?		1
10	When using more than one lifting accessory, how should they be secured to the crane hook?		2
11	Travelling with extra-long loads can be more hazardous for what reason?		1
12	Polyester webbing slings are coloured and have black lines. What do the different colours and number of lines indicate?		2
13	a) On the lifting-capacity diagram chart within Section A40, name component A and b) state its function.		3

14	If radios are to be used during the lifting operations, what FIVE actions and checks must be made by the slinger/signaller before use?		5
15	The legs of a chain sling should be no more than 90 degrees apart from each other. What happens to the SWL if the angle is larger?		2
16	What are the TWO actions that a slinger/signaller undertakes on lifting accessories during pre-use inspections?		2
17	If assisting in fitting a fly jib to the crane, why is it important that the manufacturer's procedures are followed precisely?		2
18	What is the definition of, or how can a hazard be described?		3
19	Name THREE ways in which wind speed can affect the lifting operation.		3
20	Wind speeds can be variable throughout the working day. What action must be taken to ensure safe working conditions are maintained?		1
21	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?		3
22	If attaching accessories to a quick-hitch coupler of a machine such as an excavator, give TWO reasons why should the coupler should be tilted in the downwards position (ram extended).		2
23	If the hook block of a hoist rope-equipped lifting equipment inadvertently (accidentally) lands, what is a possible consequence?		2
24	What TWO checks need to be made before a load is to be lowered into a trench or excavation?		4
25	Which parts of a slewing-type lifting equipment is the radius (for lifting) measured from?		2
26	Why should checks be made to lifting accessories after work has ceased?		1
27	Two boom/jib equipped cranes are working in the same vicinity that encroach on the operating radius of each. What actions would the lift plan or method statement normally specify?		3

28	When working with non-hoist rope lifting equipment e.g. excavator, forklift etc. just before going to attach or disconnect a load, a) what action should the slinger/signaller undertake, b) what action should the machine operator undertake and c) explain why?		6
29	What TWO things should be considered when selecting a place of refuge or safety within a designated plant manoeuvring area?		2
30	Name FIVE proximity hazards which could affect a lifting operation.		5
31	When undertaking a pick-and-carry duty, explain why turning, even gently, with a suspended load can cause an effect on the machine.		2
32	On the lifting capacity diagram chart within in Section A40: a) what is the type of sling shown in item B and b) what is type of hitch shown?		4
33	List SIX factors that must be taken into account by both the machine operator and slinger/signaller if a suspended load is to be travelled across a site.		6
34	Name THREE ways in which a slinger/signaller can minimise their impact upon the environment during lifting operations.		3
35	If guiding an item of lifting equipment undertaking pick-and-carry duties near an open trench which has a depth of 2 metres, what is the minimum distance to maintain?		2
36	State the functions or job role of the following personnel: a) appointed person, b) crane/lifting operations supervisor, c) lifting equipment operator.		3
37	On a busy construction site, how would the slinger/signaller be identified to the lifting equipment operator?		1
38	Name FIVE items that should be listed within a site traffic management plan.		5
39	Give FOUR reasons that may cause mobile-type lifting equipment to overturn.		4
40	Name FOUR different types or levels of sanction that can be applied (by employers and judicial bodies) to slingers/signallers who do not comply with, or follow legislation and regulations.		4

41	What is meant by centre of gravity, or how is the centre of gravity determined, on a load to be lifted?		1
42	a) On mobile-type lifting equipment, what can apply loading or pressure to the ground and b) name TWO ways that pressure can be reduced.		3
43	When can barriers/signs marking a lifting operations working area be removed?		1
44	What is the purpose of a risk assessment?		2
45	Suspended loads with a large surface area need additional care for what reason?		2
46	Give TWO examples of where The Work at Height Regulations may apply to lifting operations.		2
47	When working with slewing type-lifting equipment in a restricted/confined area: a) what danger can be present with regards to the machine's counterweight, b) when should measures be taken and c) what measures should be implemented?		3
48	If a load is inadvertently slewed rather quickly by the operator of an item of lifting equipment, what TWO initial effects does it have on the load whilst slewing?		2
49	During inspections, damage has been found to a lifting accessory. What TWO actions must be taken?		2
50	a) On hoist rope-equipped lifting equipment, how does the number of lines or falls of rope affect the lifting capacity and b) how is hoist speed affected when the number of lines (or falls of rope) is reduced?		2
51	During the lifting operation, part of the task cannot be carried out as detailed in the lift plan. a) What initially must happen to the lifting operation and b) who authorises any changes?		3
52	The slinger has to use new lifting accessories that they are unfamiliar with. What do Regulations (e.g. LOLER 98) and other guidance require the slinger/signaller to have?		3
53	What must be taken into account if a suspended load is being lifted with an accessory e.g. chains, which has extra-long legs?		3

54	The safe working load (SWL) of a multi-leg chain sling only applies in what TWO conditions or configuration?		
55	List SIX typical subject areas that should be covered in a site induction.		3
56	a) Who is allowed to issue lifting accessory test certificates and b) when are they issued?		3
57	Before guiding and assisting the movement of mobile lifting equipment that is being repositioned to carry out a new lifting operation a) what should the marshaller/signaller ensure and b) with whom?		2
58	What are the ideal conditions for lifting accessories to be stored?		2
59	a) What is the purpose of a Method Statement, lift plan and b) what is required of the slinger/signaller?		4
60	Prior to undertaking signalling duties for pick-and-carry duties, describe FOUR actions to be made by the slinger/signaller to ensure their own safety?		4
61	What is regarded as the danger or hazard zone during a lifting operation?		1
62	Only two legs of a 6 tonne four-leg chain sling are being used. In principle, what is the maximum load that can be lifted with that sling?		1
63	When a suspended load is being travelled, in what position should the load be situated?		1
64	What needs to be inspected on a quick-hitch coupler of an excavator if attaching lifting accessories for the lifting of slung loads?		2
65	Name the FOUR stages of the hierarchy of control for vehicle/plant manoeuvring operations		4
66	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? (Note. The tester may provide a different figure in order to check understanding)		2

67	What should the slinger confirm with the lifting equipment operator regarding the audible alarm (if fitted) when setting up to carry out a lift ?		1
68	What is the difference between a contract lift and a 'standard' crane hire?		4
69	Name THREE ways that a hired-in slinger/signaller can contribute in ensuring repeat business with the client or principal contractor.		3
70	Why must the hoist rope of an item of lifting equipment (mobile/crawler crane etc.) be kept vertical before lifting any loads?		2
71	Explain THREE factors that could affect the integrity of a lifting operations exclusion zone and safe movements within the zone.		3
72	If setting up to lift loads in a pedestrianised area, state ONE factor that needs to be taken into account by the slinger/signaller.		3
73	a) Name THREE different types of lifting accessories, and b) state ONE advantage of each compared to other types of available lifting accessories.		6
74	a) What does the safe working load (SWL), as stamped on lifting accessories, indicate? b) what action should be taken if the SWL is not marked on a lifting accessory?		4
75	How does the use of a swivel hook assist in the lifting operation?		2
76	What information is needed when estimating the weight of a load?		3
77	What THREE main duties of The Health and Safety at Work Act must employees follow?		6
78	What could affect the strength of the signal if radios are being used between the lifting equipment operator and the slinger/signaller?		2
79	During a lift, it is suspected that a lifting accessory exceeded the rated capacity. What would be the course of action?		2
80	With lighter boom construction on boom or jib-equipped cranes, how does the deflection of a boom or jib affect the lifting of a load?		2
81	Why are those undertaking slinging/signalling duties generally regarded as 'safety-critical' workers?		4

82	a) What is meant by the rated (lifting) capacity of lifting equipment and b) who determines it?		2
83	If a load is being travelled or slewed, what TWO possible factors should the slinger take into account?		4
84	State the possible effect on an item of lifting equipment if it is positioned on a slope and lifts a load?		1
85	a) What determines the minimum distances that any part of plant and machinery has to be kept from overhead electricity lines and b) explain why a distance should be kept?		4

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