

Technical Test Theory - Vacuum Excavator A78

No.	Question
1	If setting up to work in a pedestrianised area, state FIVE factors that need to be taken into account.
2	Before re-joining the public highway after completing work, what checks must be made to any stabilisers?
3	If an unforeseen circumstance occurs during the excavating task, what would be the procedure to follow?
4	a) Name THREE ways that underground services can be found and b) in what sequence?
5	What other description are vacuum excavators commonly known as?
6	What TWO factors must be taken into account regarding the size of the exclusion zone?
7	Apart from the operator, who else may need to use the machine's Operator's Manual?
8	Name THREE factors that can cause blockages of the hose.
9	Give FOUR examples of where The Work at Height Regulations may apply to vacuum excavator operations.
10	When segregating the working area for a small excavation, what factor needs to be taken into account when placing the segregating barriers?
11	Using the Operator's Manual, state the procedure for dealing with blockages.
12	What determines what system of ground engaging tool is used?

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No.	Question
13	When using a remote-control unit (both pendant and radio operated), what action must be taken when removing the unit from the operator's body to undertake other operations, or when carrying out other operations (such as cleaning the area)?
14	Explain the procedure that must be followed should anyone other than those directly involved in the operations enter the area.
15	List SIX typical subject areas that should be covered in a site induction.
16	In poor ground, what measures must be used to maintain stability?
17	When forming a trench or excavation a) what are the risks to personal safety and b) what could be the consequences?
18	Name FOUR areas where waste material should not be discharged.
19	The operator is asked to carry out an excavation on a new site. State FIVE different requirements that must be considered or implemented before work commences.
20	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.
21	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
22	Name THREE causes for loss of suction.
23	Name TWO disadvantages of using an air-operated ground tool over a water operated version.
24	What is the meaning of this hand signal (being demonstrated by the tester)?

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25	When setting up to use an excavator, what should be taken into account regarding a pendant remote control unit?
26	Name TWO hazards of removing soils and materials (digging) directly using the hose nozzle?
27	Why is it good practice for the operator to request to see the site plan before starting work?
28	What checks should be made on reversing cameras/reversing warning devices etc.
29	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.
30	When parking the vacuum excavator at the end of the shift, name THREE places where it should NOT be parked.
31	In principle, if a blockage occurs, a) what is first course of action and b) what is the sequence of operations?
32	What is the purpose of a risk assessment?
33	Before leaving the cab or machine for a rest break, after parking and switching off the machine, what final action must be carried out?
34	What can be the effect of transporting slurry-type loads?
35	Name FOUR pieces of information that should be provided to the driver before the excavation begins.
36	Before entering a trench for excavation and cleaning purposes, name SIX factors that need to be taken into account.

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37	What THREE main duties of the Health and Safety at Work Act must employees follow?
38	Name FOUR minimum specific PPE requirements for vacuum excavator operators when carrying out excavation tasks.
39	How can a qualification or card benefit a plant operator?
40	Plant operators are generally regarded as 'safety-critical' workers. What does this mean?
41	What should you be cautious of whilst wearing a remote-control unit?
42	What is the function of the serrations that may be found on the suction hose?
43	List THREE methods that may be used to indicate underground services during excavation.
44	How can the water content of the material be removed in the container?
45	When will a plant and vehicle marshaller be required?
46	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
47	Using the Operator's Manual, what is the decibel rating?
48	On certain types of excavator, what adjustments to the machine can be made for excavating particular ground conditions?

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49	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.
50	a) What is the purpose of a Method Statement and b) what is required of the operator?
51	How do the use of stabilisers improve stability of the machine?
52	If a yellow coloured marker tape is unearthed during excavating, which two types of services could this indicate?
53	Before excavating on or near to the highway, what would indicate the type and potential amount of buried services in the vicinity?
54	What checks should be made to the remote control unit before work commences?
55	a) What is the minimum distance allowed near open trenches when travelling a mobile vacuum excavator on a site and b) explain why?
56	Name FOUR checks to be made on the condition and security of the suction hose.
57	What is the meaning of this hand signal (being demonstrated by the Tester)?
58	When briefing supporting staff a) what should the operator ensure during briefing and b) what should be undertaken at the end of the briefing?
59	What can cause a fully laden hopper of a vacuum excavator to become more unstable over an unladen one?
60	During the planning stages of work for powered or semi-powered excavators, what should be taken into account when determining emergency procedures for machine operation?

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No.	Question
61	Name THREE disadvantages of using a manual ground engaging tool compared to water or air types.
62	When using stabilisers, what TWO factors should be checked before they are deployed?
63	What particular and specific hazards can affect the stability of the machine when working on old industrial (Brownfield) sites?
64	Explain why no personnel should work or walk directly beneath a nozzle, whether supported by a boom or hand held.
65	Before commencing any excavation operations, what level of authorisation is required?
66	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?
67	Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?
68	Give FOUR reasons that may cause the machine to tip over.
69	What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?
70	What is the function of the separation chamber?
71	Name THREE disadvantages of using a water ground invasive tool over an air operated version.

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72	What procedure should be taken if a hydraulic hose bursts?
73	Where should the excavator's and vehicle's Operator's Manual be kept and why?
74	What sequence of actions are taken for an open trench once an excavation is completed?
75	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
76	If checking the oil level using a dipstick, why must gloves be worn?
77	What is the definition of, or how can a hazard be described?
78	The operator has to fit and use a new type of water or air lance that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have?
79	What factors determine the shoring requirements of a trench?