

Technical Test Theory

Grader A19



No.	Question
1	Explain the difference between a mouldboard side-shift and a circle side-shift.
2	In what situation does a hard hat NOT need to be worn when operating a grader?
3	a) What is the purpose of a Method Statement and b) what is required of the operator?
4	If setting up to grade in a confined area, name TWO things that should be taken into account before starting.
5	Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?
6	What are the possible outcomes of facing prosecution for not complying with legislation and regulations?
7	Where should the grader's Operator's Manual be kept and why?
8	If setting up to work near a pedestrianised area, state THREE factors that need to be taken into account.
9	When MUST a banksman/signaller be used before moving a grader?
10	Why are plant operators generally regarded as 'safety-critical' workers?
11	What does float control of the blade allow?
12	Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.

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13	How can a tight turning circle be achieved?
14	List SIX typical subject areas that should be covered in a site induction.
15	Give TWO reasons that may cause the grader to tip over sideways.
16	Using the Operator's Manual, state the cold-starting procedure for the machine. Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
17	Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or principal contractor.
18	If a trench has a depth of 2 metres: a) what is the minimum distance to maintain from the edge of the trench and b) explain why?
19	If a yellow-coloured marker tape is unearthed during grading, which TWO types of services could this indicate?
20	If fitted, how are the scarifier tines in the block retained in position?
21	Before manually changing the blade, why should the blade be positioned resting on the ground before removing the final pin?
22	What THREE main duties of the Health and Safety at Work Act must employees follow?
23	What is the purpose of a roll over ROPS frame?
24	What particular and specific hazards can affect the stability of the machine when working on old industrial (brownfield) sites?

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25	Apart from the operator, who else may need to use the machine's Operator's Manual?
26	If checking the oil level using a dipstick, why must gloves be worn?
27	What does the Health and Safety at Work Act require employers to do with regards specifically to plant?
28	Describe the procedure to be followed if the blade attachment has to be removed.
29	On an articulated grader, what precaution should be taken when turning left or right?
30	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?
31	If fitted, what would a front-mounted scarifier normally be used for?
32	If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.
33	Why must the seat belt be worn, even with the cab door closed?

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34	What is the purpose of a risk assessment?
35	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?
36	How can a qualification or card benefit a plant operator?
37	During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.
38	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?
39	Why would a fast working speed be selected if spreading light materials?
40	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?
41	a) What determines the minimum distances that any part of plant and machinery has to be kept from over head electricity lines and b) explain why a distance should be kept.
42	When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.
43	Name FOUR different types or levels of disciplinary actions or sanctions that can be applied (by employers and judicial bodies) to operators of plant who do not comply with, or follow legislation and regulations.
44	How does front wheel drive help work efficiency?
45	What is the definition of, or how can a hazard be described?

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46	Why should a grader be re-fuelled at the end of the day?
47	How can tyre marks be avoided when finishing a surface?
48	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?
49	a) What should be avoided when travelling if the mouldboard is being carried in the banking position and b) why?
50	What THREE things should be checked out before carrying out embankment work?
51	Name TWO types of equipment used to ensure that excavation levels, measurements and positions are to the required specification.
52	Describe THREE reasons for using the crab steer mode.
53	What is the meaning of this hand signal (being demonstrated by the tester)?
54	If operating the machine on a 'formation' trim, name THREE possible hazards.
55	Using the Operator's Manual, state the figure for the tyres' operating pressure. Note: The Operator's Manual for the machine being used for the test MUST be available for reference by the candidate.
56	If fitted, what typical applications would a front dozer blade be used for?
57	Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?

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58	What is the nearest distance allowed to gas pipes when grading with the machine?
59	What problem may occur if the wearing plates on the blade are at the maximum wear limit?