

Technical Test Theory

Soil Stabiliser A71



| No. | Question |
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| 1 | If mixing a material in which water was added through the machine, what needs to be done at the end of the shift? |
| 2 | Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out? |
| 3 | What is the most common method of driving the mixing rotor from the machine's gearbox/power source? |
| 4 | If checking the oil level using a dipstick, why must gloves be worn? |
| 5 | 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? |
| 6 | On integrated units, a) what danger can occur if travelling whilst fully loaded on a slope and b) explain why? |
| 7 | During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap. |
| 8 | What is the meaning of this hand signal (being demonstrated by the Tester)? |
| 9 | What TWO factors determine a consistent spread of the binding material along each pass? |
| 10 | Why should a soil stabiliser or spreader be re-fuelled at the end of the day? |
| 11 | Describe the aims of mixing a binding material into soil. |
| 12 | In what applications would the 'crab steering mode' be used for? |

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| 13 | When parking the machine at the end of the shift, name THREE places where the stabiliser or spreader should NOT be parked. |
| 14 | On towed units, describe one application when the hand throttle can safely be used. |
| 15 | If the operator has to top-up the transmission oil, state TWO precautions to ensure cleanliness of the system. |
| 16 | Plant operators are generally regarded as 'safety-critical' workers. What does this mean? |
| 17 | What is the purpose of a stop block or earth bank (berm) at a trench/batter? |
| 18 | What THREE factors determine the effectiveness of incorporating a binding material into soils? |
| 19 | 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. |
| 20 | Larger soil stabilisers or tractor-based spreaders 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? |
| 21 | Name at least TWO conditions that are likely to cause instability of integrated stabilisers. |
| 22 | Where should the soil stabiliser or spreaders Operator's Manual be kept and why? |
| 23 | How is the depth of work controlled on a) self-propelled units and b) on towed units? |
| 24 | Name TWO types of binding material that is used in the soil stabilisation process? |

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| 25 | State FOUR checks that needs to be made to machine before loading any binding material. |
| 26 | What speeds are the PTO shafts for towed units normally driven at? |
| 27 | Name at least THREE specific items of personal protection would be required if loading the hopper using a pressurised system. |
| 28 | Why must the seat belt be worn at all times, even with the cab door closed? |
| 29 | Using the Operator's Manual, state the figure for the tyres' operating pressure. |
| 30 | If washing down a machine following work a) what should be taken into account with the washing residue and b) why? |
| 31 | Give THREE possible reasons why a soil stabiliser or spreader should not stray off the designated travel routes. |
| 32 | 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. |
| 33 | What is the purpose of a risk assessment? |
| 34 | On a spreader, what is the purpose of metering the feed of material? |
| 35 | What could be the results of poor incorporation? |
| 36 | If travelling over binder, what TWO precautions need to be taken? |

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| 37 | What are the possible outcomes if being prosecuted for not complying with legislation and regulations? |
| 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 | a) What is the minimum distance allowed near open trenches when travelling with a soil stabiliser and b) explain why? |
| 40 | Name FOUR way that the body can be affected if coming into contact with lime or cement. |
| 41 | How are stones or other material prevented from flying out during incorporation? |
| 42 | What is a possible consequence of using a tyre with a deep cut in the sidewall? |
| 43 | What is the purpose of the air vent valve on the hopper? |
| 44 | What sort of authorisation should be in place before starting incorporation activities? |
| 45 | Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor |
| 46 | a) On towed units, when should 4-wheel drive not be selected and b) explain why? |
| 47 | What THREE main duties of the Health and Safety at Work Act must employees follow? |
| 48 | High winds can cause what THREE effects on the incorporation process? |

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| 49 | What is the definition of, or how can a hazard be described? |
| 50 | If applicable, whenever possible, who should decide the positioning of the stabiliser when being loaded by a tanker/silo? |
| 51 | List SIX typical subject areas that should be covered in a site induction. |
| 52 | Who should determine the maximum load that is to be placed into the hopper? |
| 53 | List THREE items be looked for when carrying out post-operational checks on stabilisers. |
| 54 | How can a qualification or card benefit a plant operator? |
| 55 | Apart from the operator, who else may need to use the machine's Operator's Manual? |
| 56 | What problems and hazards can soft ground cause to a soil stabiliser or spreader? |
| 57 | What is the purpose of a ROPS cab? |
| 58 | Before attempting to clear the mixing/rotor area of excess material, what is the first action that must be undertaken? |
| 59 | What does the Health and Safety at Work Act require employers to do with regards specifically to plant? |
| 60 | When travelling on wet clay, what effect does this have on the soil stabiliser or spreader? |

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| 61 | a) What is the purpose of a Method Statement and b) what is required of the operator? |
| 62 | Where required, in what situation does a hard hat NOT need to be worn when operating a soil stabiliser or spreader? |
| 63 | When working in a restricted area or space, name TWO hazards that can occur. |
| 64 | a) Name THREE purposes of the raised lugs on tyres and b) what can happen to a soil stabiliser or spreader if the lugs are severely worn? |
| 65 | 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. |
| 66 | What is the difference between an integrated and non-integrated soil stabiliser? |
| 67 | Why should the parking brake be fully applied when parking, and not just be left in gear? |
| 68 | a) If setting up to work near to the general public and/or other site workers, state THREE factors that need to be taken into account and b) what measure need to be put in place to minimise those factors. |
| 69 | When checking the connection of mounted units to the tractor, how should the safety/lynch pin be configured or fitted? |
| 70 | Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine. |