

## Tractor Driving Exam Answer Key

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| <b>T</b> | F        | 1.  | Calcium chloride solution is the most commonly used type of weighting material for tractor tires.   |
| T        | <b>F</b> | 2.  | The recommended practice is 75% fill or fill to valve level with the valve at the bottom of the tire when adding a solution of CaCl.  |
| <b>T</b> | F        | 3.  | Calcium Chloride is heavier than water.   |
| T        | <b>F</b> | 4.  | A gap of .303 inches is recommended for the spark plug on a 4020 diesel John Deere tractor.   |
| <b>T</b> | F        | 5.  | A good operator need not be a mechanic but he knows when it is time to get the help of a mechanic.  |
| <b>T</b> | F        | 6.  | The tractor operator's manual gives instructions on servicing and maintenance, including daily service and adjustments.   |
| <b>T</b> | F        | 7.  | Checking and servicing the air cleaner on your tractor is one of the most important service jobs for you to do.   |
| <b>T</b> | F        | 8.  | The common carburetor uses about 7,000 to 12,000 gallons of air for every gallon of fuel.   |
| <b>T</b> | F        | 9.  | If dirt is not filtered out by the air cleaner it passes directly through the intake manifold into the engine cylinders.  |
| T        | <b>F</b> | 10. | The two types of air cleaners are (1) oil bath and (2) water bath.  |
| <b>T</b> | F        | 11. | An oil type air cleaner causes the air to pass through the oil, which traps the dirt particles.   |
| <b>T</b> | F        | 12. | Air is cleaned in a dry-type cleaner by passing it through a special pleated paper element which filters out small particles and holds them on the outer surface of the filter element. |
| T        | <b>F</b> | 13. | An oil bath air cleaner can be mounted horizontally or vertically.  |
| T        | <b>F</b> | 14. | Gasoline should be used to clean air oil-bath air cleaner.  |
| <b>T</b> | F        | 15. | The dust unloader is a rubber duck-bill arrangement that is held shut by suction while the engine is running.   |
| <b>T</b> | F        | 16. | Overheating causes oil to oxidize.  |

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| T | F | 17. | Oil in the crankcase keeps working parts hot.   |
| T | F | 18. | Oil forms a seal between the piston rings and cylinder walls.   |
| T | F | 19. | Oil cushions the pounding action on piston pins and bearings.   |
| T | F | 20. | Overfilling the crankcase with oil does not cause any problem.  |
| T | F | 21. | Approximately 40% of engine heat is given off through the cylinder walls.   |
| T | F | 22. | A thermostat measures the amount of water in cooling system.  |
| T | F | 23. | A pressure-relief valve is located in the radiator cap.   |
| T | F | 24. | A vacuum valve allows air to reenter the radiator as it cools.  |
| T | F | 25. | Refill radiator to within about 2 inches of the radiator neck.  |
| T | F | 26. | Dirty water clogs the cooling system and makes it less effective.   |
| T | F | 27. | Wipe the end of a grease fitting with a clean cloth before greasing.  |
| T | F | 28. | Water is more of a problem in diesel fuel than it is in gasoline.   |
| T | F | 29. | It is important for you to be prepared to operate a tractor safely.   |
| T | F | 30. | Wear shoes that are comfortable when operating a tractor, such as tennis shoes, thongs, etc.  |
| T | F | 31. | Watching for the parts that need attention and caring for them at the time they need it, is part of the difference between a tractor driver and a competent operator. |
| T | F | 32. | Adding weight to rear wheels of a two-wheel drive tractor reduces traction for pulling.   |
| T | F | 33. | Adding weight to front wheels keeps them from rising when driving up a slope.   |
| T | F | 34. | Wash pressure gauge after testing tires containing calcium chloride solution.   |
| T | F | 35. | Provide ventilation in a closed building before starting your tractor.  |
| T | F | 36. | Carburetor-type engines give off carbon monoxide, which can cause sickness or death if confined in a building.  |
| T | F | 37. | The 4 strokes of a 4 cycle engine is order are: Intake, Power, Compression, Exhaust.  |
| T | F | 38. | Tractor speed control levers are usually mounted on the steering column or instrument panel.  |

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| <b>T</b> | <b>F</b> | 39. | Some diesel tractors have an electric heating element for starting in cold weather.   |
| <b>T</b> | <b>F</b> | 40. | When traveling on the highway, unlock the latch connecting the right and left brake pedals.   |
| <b>T</b> | <b>F</b> | 41. | The majority of farm tractors are designed to haul more than one person.  |
| <b>T</b> | <b>F</b> | 42. | Some tractors are equipped with a range level to provide faster or slower speed selection with your regular gear shift.                                   |
| <b>T</b> | <b>F</b> | 43. | Even at relatively slow speeds, running over a hidden object can cause a tractor to tip sideways.   |
| <b>T</b> | <b>F</b> | 44. | After the clutch is engaged, completely remove your foot from it.   |
| <b>T</b> | <b>F</b> | 45. | Hooking to the axle when towing can cause a tractor to overturn backwards.  |
| <b>T</b> | <b>F</b> | 46. | When pulling equipment with PTO shaft and draw bar, it is better to have a short draw bar rather than a long draw bar.                                    |
| <b>T</b> | <b>F</b> | 47. | Sway locks or stabilizer bars eliminate swinging action of the hitch.   |
| <b>T</b> | <b>F</b> | 48. | Attach the right lower link of a 3-point hitch first, because it has no adjustment.   |
| <b>T</b> | <b>F</b> | 49. | Standards provide that two shafts shall be splined differently so it is impossible to connect a 540 rpm implement to a 1000 rpm PTO shaft, or vice versa. |
| <b>T</b> | <b>F</b> | 50. | A remote cylinder is positioned under the tractor hood.   |
| <b>T</b> | <b>F</b> | 51. | A remote cylinder is used to raise the lower trailing equipment such as plows, disc harrows and the cutter bars of combines and mowers.                   |
| <b>T</b> | <b>F</b> | 52. | A dust cap should be covering the PTO shaft when using PTO equipment.   |
| <b>T</b> | <b>F</b> | 53. | Some tractors are equipped with an automatic draft control, which is used with equipment such as a plow or disc harrow.                                   |
| <b>T</b> | <b>F</b> | 54. | Some implements provide for two tongue positions – one for transport and the other for field operation.   |
| <b>T</b> | <b>F</b> | 55. | You get greatest efficiency from a carburetor engine on a light load when the speed-control lever is completely open.                                     |
| <b>T</b> | <b>F</b> | 56. | A diesel engine may start running backwards if it is about to stall under a heavy load.   |

- T     **F**     57. It is generally agreed when slippage becomes greater than 30% during normal field operations you should either add weight to the rear wheels or reduce the tractor load.
- T**     F     58. 
$$\frac{(\text{Distance to}) A - (\text{Distance to}) B}{(\text{Distance to}) A} \times 100 = \text{percent of slips}$$
- T**     F     59. On very steep slopes, if you have no trailing equipment, back the tractor up the hill for greatest safety.
- T**     F     60. Weights on the front of your tractor help offset implements that add weight to the rear.
- T**     F     61. Wide wheel spacing increases safety on slopes.
- T     **F**     62. When starting up a hill with a load, quick engagement of the clutch gives you more power for climbing the hill.
- T     **F**     63. When in gear, the engine does not help brake the tractor on slopes.
- T**     F     64. A tractor equipped with a roll bar helps protect the operator in case of overturning sideways.
- T**     F     65. The normal shear angle of soil without vegetation is about 45 degrees for ditches six feet or less in depth.
- T     **F**     66. You are taking no risk of overturning backwards by driving forward out of a mud hole or ditch.
- T**     F     67. Riding the tractor draw bar is a dangerous practice.
- T**     F     68. Backing a tractor out of a mud hole or ditch is safe practice.
- T**     F     69. Turning too sharply may cause a lug on the rear wheel to lift an implement and lodge it on the tire.
- T     **F**     70. In diesel engines, knock is caused by the fuel igniting too rapidly.
- T**     F     71. Ignition quality is a term to express the immediate burning of the diesel fuel.
- T     **F**     72. If the oil-pressure indicator suddenly drops to zero, or points to the red area, check on it when you finish for the day.
- T**     F     73. Diesel tractors are even more dependent on high temperature for proper operation than carburetor type tractors.
- T     **F**     74. The odometer shows the rate of battery charge or discharge.

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| T | F | 75. | Farm tractors and other farm vehicles, road maintenance and construction equipment, and horse-drawn vehicles designed for a speed of no more than 25 MPH, have been classified as slow moving vehicles. |
| T | F | 76. | Use standard hand turn signals for tractor operation as when operating an automobile.   |
| T | F | 77. | Diesel fuel and water mix rather readily and the water is slow to settle out, much slower than with gasoline.   |
| T | F | 78. | Smoking while refueling is not recommended for those that wish to continue living.  |
| T | F | 79. | The paper element air cleaner is more efficient than oil bath air cleaners.   |
| T | F | 80. | Solvent rather than gasoline should be used for cleaning parts.   |
| T | F | 81. | Use 10 weight oil in summer and 50 weight oil in winter.  |
| T | F | 82. | A good oil for diesel tractors is rated ML.   |
| T | F | 83. | To prevent damage to the injectors on a diesel tractor, drain water from the fuel filters if so equipped.   |
| T | F | 84. | Check the octane rating when buying diesel fuel.  |
| T | F | 85. | Diesel engines should be thoroughly warmed up before putting under heavy load.  |
| T | F | 86. | A gasoline engine has a higher compression ratio than a diesel engine.  |
| T | F | 87. | L – P gas is commonly known as Propane.   |
| T | F | 88. | It is a safe practice to remove the radiator cap while the engine is hot.   |
| T | F | 89. | To prevent condensation from forming, keep the fuel tank full.  |
| T | F | 90. | To avoid danger of fuel vapor igniting, wait 4 to 5 minutes for the tractor to cool before refueling.   |
| T | F | 91. | It is generally accepted as a safe practice to ride on implements being towed by a tractor.   |
| T | F | 92. | A diesel tractor that has been under heavy load should be allowed to run a few minutes at an idle before shutting off.  |
| T | F | 93. | Category I hitches are 80 horse power and over.   |

- T** F 94. As you double ground speed the forces which cause overturning increase four times.
- T **F** 95. Engaging the differential lock assists in turning the tractor.
- T **F** 96. A SMV sign is a red and white rectangular sign.
- T **F** 97. Adjust belts when moving and under power.
- T **F** 98. It is recommended to give a tractor under heavy load a shot of ether for extra power.
- T** F 99. Side wall or radial cracks are caused by under-inflation or by heavy axle loads.
- T **F** 100. An above-ground fuel storage tank will lose less from evaporation than an underground fuel tank.
- T** F 101. Clean hydraulic coupling ends before connecting.
- T** F 102. Release hydraulic pressure before disconnecting the hydraulic systems.
- T **F** 103. Hooking above the draw bar when pulling a load is not considered dangerous.
- T **F** 104. When operating a tractor with a front loader, carrying the load at full height will make it more stable.
- T **F** 105. Riding the clutch helps control the tractor speed.
- T** F 106. When operating on a steep down slope shift the tractor to a low gear, this will help control speed.
- T** F 107. By-passing the neutral safety switch will allow you to start the tractor in gear.
- T **F** 108. When bearings on safety shields on PTO shafts wear out, remove the shield and leave it off.
- T **F** 109. When red lights on dash come on it is okay to operate tractor.
- T **F** 110. On non synchro-meshed transmissions it is okay to shift while tractor is moving.
- T** F 111. On diesel tractors, after changing fuel filters the fuel system normally needs to be bled.
- T **F** 112. When checking fluid levels both oil and water it is better to check immediately after operation of tractor.

- T **F** 113. You should always use glow plugs when starting a diesel engine if you are going to use ether.
- T **F** 114. If your tractor is equipped with ROPS it isn't necessary to use seat belts.
- T** **F** 115. On some tractors when operating PTO equipment the momentum of the PTO can cause the tractor to move forward even when clutch is disengaged.
- T** **F** 116. ROPS manufactured on the farm may not meet safety specifications established by the manufacturer.
- T **F** 117. When using mounted spray tanks on tractors it is better to mount them on the rear rather than the front.
- T **F** 118. The adjustable links on the three point hitch have very little use and are a waste of money.
- T** **F** 119. When the tractor is not in use and it has a three point implement mounted on it, the equipment should be lowered to the ground.
- T **F** 120. When you have removed safety shields on equipment for repairs leave them off so repairs can be made easier next time.
- T** **F** 121. When moving a combine down the highway with a 16 foot header, flashing warning lamps should be mounted on the widest part of the machine.
- T **F** 122. Only one safety chain is required when towing a piece of equipment down the highway.