

Multiple-choice questions on mechanical knowledge.

【English version】

Num.	Ans.	Question
001	1	A diesel engine combustion is triggered by (1) high temperature created by compressed air. (2) ignition activated by spark plugs. (3) high temperature created by air mixing with diesel fuel.
002	3	Diesel engine compression refers to (1) compressing pure diesel fuel. (2) compressing a mixture of air and diesel fuel. (3) compressing pure air.
003	3	Diesel fuel is forced into the combustion chamber by (1) a carburetor. (2) atmospheric pressure. (3) a direct injection nozzle.
004	2	The water jacket of a diesel engine is its (1) lubrication system. (2) cooling system. (3) power transmission system.
005	2	Which of the following is the normal operating temperature of a diesel engine? (1) 70 to 85 degrees Fahrenheit. (2) 75 to 95 degrees Celsius. (3) 140 to 180 degrees Celsius.
006	1	What does a fuel injector spray into the cylinder of a diesel engine? (1) Pure diesel. (2) A mixture of diesel steam and air. (3) Pure air.
007	2	Diesel is sprayed into the cylinder by (1) a carburetor. (2) an injector. (3) a fuel pump.
008	2	Which of the following causes a diesel-powered vehicle to discharge dark smoke? (1) Burning engine oil. (2) A defective fuel injector. (3) Air in the fuel lines.
009	2	If the vehicle runs out of diesel fuel when the engine is running, you need to (1) add fuel to the tank. (2) fill up the fuel tank and get rid of any air in the fuel lines. (3) Both statements are correct.
010	1	As compared to a gasoline or petrol engine, a diesel engine's air compression ratio and combustion pressure are (1) higher. (2) lower. (3) the same.
011	1	As compared to a gasoline or petrol engine, the noise and vibration level of a diesel engine are (1) higher. (2) lower. (3) the same.
012	1	If the air pressure in the tires is too low, which of the following will happen? (1) The sidewalls of the tires will wear out faster. (2) The tire treads will wear down faster. (3) This will have no damaging affect on the tires.
013	3	What will cause the left and right tires to wear out unevenly? (1) Improper braking. (2) Engine malfunction. (3) Improper alignment.
014	2	To remove the lug nuts from a tire, you need (1) an open end wrench. (2) a socket wrench. (3) a screwdriver.
015	3	To properly lower the inclinable cab of a large truck, (1) you must stop lowering the cab as soon as buzzer stops. (2) you must wait until the buzzer sounds to know the cab has been lowered into the right position. (3) you must wait until the cab has been lowered into the right position and securely fastened down with the safety hook.

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016	2	A large vehicle's exhaust brake is designed to help (1) increase speed. (2) reduce speed. (3) keep the speed constant.
017	1	If the brake pads are worn out, the amount of pressure required to stop the vehicle (1) increases. (2) decreases. (3) remains unchanged.
018	3	If brake oil in one braking system of a dual-braking system is leaking, what will happen? (1) The braking system will still work for three tires. (2) Both of the breaking systems will fail completely. (3) The brakes will still work for the tires on one end of the car.
019	1	The hand (emergency) brake of a large vehicle will stop the (1) transmission drive shaft and rear wheels. (2) crankshaft. (3) front wheels.
020	3	If the movement of a wheel is unintentionally impaired by the brakes, it is probably due to a malfunction of the (1) vacuum booster. (2) master cylinder. (3) wheel cylinder or other minor part in the braking system.
021	2	If the brakes feel soft and less responsive when you push on them, it is probably because (1) the fuel lines are blocked. (2) the brake lines are leaking either fluid or there is air in the brake lines. (3) oil is leaking on the brake pads.
022	3	You should release the hand brake (1) before you start the engine. (2) after the engine is started and before you put the vehicle into gear. (3) after you put the vehicle in gear, but before driving it.
023	1	To maintain the normal performance of an air braking system, what should you do? (1) Drain any water out of the air reservoir every day. (2) Drain any water out of the air reservoir once a week. (3) Drain any water out of the air reservoir after the regular maintenance is completed.
024	1	If you use your brakes too often, it (1) will cause the brake pads and brake drums to overheat thus decreasing the braking performance. (2) will cause the brake pads to overheat, but that won't affect the braking performance. (3) will not affect the braking performance because the two things are unrelated.
025	3	When driving down a steep hill, how do you maintain the braking performance? (1) Just keep applying pressure to the brake pedal. (2) Keep applying pressure to the brake pedal while at the same time using the engine brake to regulate your speed. (3) Keep applying pressure to the brake pedal while at the same time using the engine brake or exhaust brake to regulate your speed.
026	2	Dual air braking systems are designed for use in (1) small vehicles. (2) large vehicles. (3) both small and large vehicles.
027	1	If the clutch pedal gap increases too much, (1) you will have hard time shifting. (2) the engine will put out less horsepower (Hp). (3) the clutch will slip.
028	1	If the clutch sticks, (1) the clutch disc will wear out faster than usual. (2) it will be easier to shift gears. (3) your tires will wear out faster than usual.

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029	1	The air pressure difference between the two double-mounted tires at the rear of a large truck should not be higher than (1) 5%. (2) 15%. (3) 25%. Otherwise, the tires will more easily have a blowout.
030	3	Power steering uses (1) engine oil. (2) transmission fluid. (3) high-pressure hydraulic fluid.
031	1	To park a manual drive vehicle, you must shift into (1) Park (P). (2) Reverse (R). (3) Neutral (N) and use the hand (emergency) brake at the same time.
032	3	Under normal driving conditions, the engine temperature (1) is higher in the winter. (2) is lower in the summer. (3) varies.
033	1	If a gasoline or petrol engine is discharging black smoke, it's probably because (1) the carburetor is malfunctioning. (2) too much oil was added to the engine. (3) a valve has burned out.
034	2	The engine will overheat if (1) the piston rings crack. (2) the fan is not working. (3) the air-conditioner brakes down.
035	2	If your vehicle has a three-way catalytic converter, you have to use (1) low-leaded gasoline. (2) unleaded petrol. (3) nitrogen-enriched gasoline.
036	1	A liquefied petroleum engine is (1) ignited by spark plugs. (2) ignited by a glow plug. (3) self-ignited via high-pressure and high-temperature.
037	1	Compared to carburetor-regulated gasoline engine, which of the following advantages does a computer-controlled fuel injection engine have? (1) Less exhaust and greater fuel efficiency. (2) A higher cylinder compression ratio. (3) Less engine vibration.
038	1	If you crank the ignition after the engine has already started, you may damage the (1) starter motor. (2) alternator. (3) clutch.
039	3	What kind of oil do you put in a 4-stroke engine? (1) Oil mixed with gasoline. (2) Lubrication oil. (3) Regular oil.
040	3	What is the normal color of smoke discharged by a 4-stroke gasoline engine? (1) Black. (2) Blue and white. (3) It's colorless.
041	3	If you abruptly put pressure on the accelerator pedal of a cold engine that you have just started, (1) you will possibly kill the engine and waste fuel. (2) the service life of the engine will be shorter. (3) Both statements are true.
042	2	The cooling system thermostat is usually installed (1) inside the radiator. (2) in the engine's water outlet. (3) in the engine's water jacket.
043	3	Which vehicle engine produces less pollution and less noise? (1) A diesel engine. (2) A gasoline engine. (3) An electric engine.
044	1	Which of the following reciprocating-piston engines vibrates the most and produces the loudest noise? (1) A diesel engine. (2) A gasoline engine. (3) A liquefied petroleum gas engine.

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045	2	At what speed do engines have the maximum torque and consume the least fuel? (1) Low speed. (2) Medium speed. (3) High speed.
046	2	How do you make it impossible to start a gasoline engine? (1) Cut off the fuel supply. (2) Disable the spark plugs. (3) Reduce the master cylinder pressure.
047	1	If you have fuel, but still can't start the engine, what should you do first? (1) Check the spark plugs. (2) Check the cylinder pressure. (3) Check the valve operating clearance.
048	1	Before you start a vehicle indoors, what is the most important thing you should do? (1) Make sure the garage is ventilated. (2) Make sure the valve doesn't make a noise (3) Make sure the piston is not making any abnormal sound.
049	2	What are the advantages of having a turbocharger? (1) It improves the performance of an idling engine. (2) It enhances the performance of an engine running at medium or high speeds. (3) It improves the performance of an engine running at a constant speed.
050	3	If the engine malfunction warning light comes on, but the engine will still operate, what should you do? (1) Stop driving immediately and wait for help. (2) It doesn't matter if you keep driving as long as the engine works. (3) Go ahead and drive your vehicle for the time being, but have it repaired as soon as possible.
051	1	What is an advantage of a liquefied petroleum engine? (1) It emits less pollution. (2) There's no need to lubricate the engine parts. (3) It makes no noise.
052	3	If you smell gas when driving a liquefied petroleum powered vehicle, how should you handle the situation? (1) Stop driving immediately. (2) Turn off engine, and open the hood and trunk. (3) Both statements are correct.
053	1	A liquefied petroleum powered vehicle must be refueled with (1) liquefied petroleum. (2) gasoline. (3) diesel.
054	1	If your vehicle has manual choke, how do you start the engine during cold weather? (1) First, pull out the choke. (2) Just go ahead and switch on the ignition. (3) First pump the accelerator pedal several times.
055	2	If the engine temperature drops below normal level when driving, it will cause (1) damage to the cooling system. (2) a higher rate of fuel consumption. (3) the carburetor to become blocked.
056	2	How do you start a gasoline injection engine? (1) Pump the accelerator pedal continuously as you crank the ignition switch. (2) Just go ahead and start the ignition. (3) Pull out the choke first.
057	2	If the fluid level in the overflow tank of the cooling system gets too high, it's probably because (1) the radiator is leaking. (2) the radiator cap was not completely tightened. (3) the vehicle cooling system doesn't have a thermostat.

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058	1	If you remove the radiator cap when the engine is hot, (1) extremely hot water might spurt out and injure you. (2) you might damage the thermostat. (3) the radiator might crack.
059	3	The air filter is designed to (1) prevent dust from getting into the cylinders. (2) prevent combustion and fire in the exhaust pipe. (3) Both statements are correct.
060	2	If the oil pressure warning light starts flashing when the vehicle is being driven at a slow speed, (1) the oil level is too high. (2) the internal engine bearings are worn out. (3) the piston rings are cracked.
061	3	What is a disadvantage of an air-cooled engine? (1) It will break down often. (2) The engine design is very complicated. (3) It's very noisy and cooling is not constant.
062	1	Which is the best cooling water for engines? (1) Distilled water. (2) Hard water. (3) Water mixed with minerals.
063	2	If the engine overheats and then the alternator fails, it's probably because (1) there's not enough water to cool the engine. (2) the fan belt is loose or broken. (3) the piston rings are stuck.
064	2	If the cooling water gets contaminated with a creamy-colored oil, it's probably because (1) the oil filter needs to be changed. (2) the head gasket is cracked. (3) the thermostat is broken.
065	1	If you have been driving for a long time, but the engine just won't reach a normal operating temperature, it's probably because (1) the thermostat is broke or there's not one installed (2) there's too much oil in the engine. (3) the exhaust pipe is blocked.
066	2	If you use the clutch too often, which of the following parts will probably become damaged? (1) The clutch bearings. (2) The clutch. (3) The clutch fork.
067	2	When clutch is worn out, it (1) becomes looser. (2) becomes tighter. (3) makes no difference.
068	2	If the vehicle pulls to the left or the right when you apply the brakes, it's probably because (1) there is too much brake fluid in the brake lines. (2) one of the front wheel brakes is not working normally. (3) There is air in the brake lines.
069	3	If there's no gap between the brake pedal and the floorboard, the (1) brakes won't function well. (2) the brakes will function better. (3) the brakes will stick and not work.
070	1	The clutch in a rear-wheel drive vehicle is located (1) in front of the transmission. (2) behind the transmission. (3) inside the transmission.

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071	2	If your tires are not balanced and you drive at a high speed, what will happen? (1) The brakes will fail. (2) The steering wheel will vibrate. (3) The steering wheel will be impossible to turn.
072	1	If you take your foot off the brake pedal but it doesn't rebound, it's probably because (1) the pedal return spring is broken. (2) the tie rods have become loose. (3) the brake shoe spring is broken.
073	1	When turning, what allows the drive-wheel to generate different speeds? (1) The differential. (2) The transmission. (3) The clutch.
074	2	Which of the following indicates the compressed air pressure level? (1) The oil pressure gauge. (2) The air pressure gauge (3) The thermostat.
075	3	When starting an automatic drive vehicle, you must first shift into (1) either park (P) or reverse (R). (2) either neutral (N) or drive (D). (3) either park (P) or neutral (N).
076	1	If your vehicle pulls to one side when driving, it's probably because (1) the air pressure in the tires is uneven. (2) the shock absorbers are not operating properly. (3) the steering wheel column is loose.
077	2	If you drive a car normally, as the mileage increases, the clutch will (1) gradually become looser. (2) gradually become tighter. (3) remain the same.
078	1	Which of the following fluids does a hydraulic clutch use? (1) Brake fluid. (2) Regular oil. (3) Lubricating oil.
079	2	Which of the following is the most fragile part of a tire? (1) The treads. (2) The sidewalls. (3) The lip.
080	1	The longer you drive a vehicle, the gap between the brake pedal and the floorboard (1) will become larger. (2) will become smaller. (3) stay the same.
081	2	Unbalanced tires are likely to cause (1) the engine to seriously vibrate. (2) the car to pull to one side during braking. (3) nothing.
082	3	If the pressure in the tires is too high, (1) oil will be wasted. (2) the vehicle will be difficult to turn. (3) the center of the tread will wear out faster.
083	3	Which of the following is the most important factor affecting the service life of tires? (1) Speed. (2) Temperature. (3) Load weight.
084	1	When the clutch is worn out, what will happen? (1) The engine speed (rpm) will increase, but the vehicle speed will remain the same. (2) It will be difficult or impossible to shift. (3) Turning the vehicle will become extremely difficult.
085	1	If a tire is marked with 155S R13, what does 155 represent? (1) The tire tread width. (2) The tire radial diameter. (3) The diameter of the steel rim the tire is mounted on.

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086	1	If the transmission fluid is leaking, (1) engine will overheat and fuel efficiency will be lower. (2) the driver won't be able to shift gears. (3) it will be difficult to keep the clutch in any particular gear.
087	2	You should change the engine oil and the transmission fluid (1) when the engine is shut off and cold. (2) after you have started the vehicle and the engine is starting to warm up. (3) anytime, no matter whether the engine is hot or cold.
088	2	The tire specifications are marked on (1) the tire treads. (2) the tire sidewalls. (3) the lip of the tire.
089	3	Which of the following is a disadvantage of an automatic drive vehicle? (1) You can switch gears without having to use a clutch. (2) You cannot shut off the engine if the vehicle is moving. (3) The engine braking performance is not as good.
090	1	To avoid damaging the transmission, if an automatic drive vehicle is going to be towed away, but the drive wheels cannot be lifted, it should only be towed (1) at a slow speed for a short distance. (2) at a slow speed for long distances. (3) at a high speed for short distances.
091	2	What is the color of ATF (the transmission fluid in an automatic drive vehicle)? (1) Transparent brown. (2) Transparent red. (3) Opaque black.
092	3	The differential in a front-wheel drive vehicle is located (1) behind the clutch. (2) at the rear end of the drive shaft. (3) inside the transmission.
093	3	Which of the following is the main purpose served by rear axle ratio? (1) To make it easier to reduce speed. (2) To enable the left and right wheels to spin at different speeds when turning. (3) Both statements are correct.
094	2	If a vehicle has an ABS braking system, when the ABS warning light comes on (1) it means the entire braking system is non-operable. (2) it means the braking system has a serious problem and the vehicle has to be repaired immediately. (3) it has nothing to do with the braking system.
095	3	If the brake pads become contaminated with grease or oil, what will happen when you push on the brake pedal? (1) The vehicle will vibrate. (2) The brakes will make a strange noise. (3) The brakes won't work at all.
096	1	If you get grease on your tires, you should clean the grease off with (1) clean water. (2) regular gasoline. (3) diesel.
097	1	If the water in the battery is low, you should add (1) distilled water. (2) whatever water is available. (3) tap water.
098	2	If the battery cables are connected to the wrong battery terminal posts, what will happen? (1) The DC rectifier will burn out. (2) The AC rectifier will burn out. (3) Nothing will happen.

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099	2	Which of the following will prevent corrosion and at the same time improve electrical conduction if applied to the battery terminal posts? (1) Paint. (2) Grease. (3) Tar.
100	3	If you are not planning to use your vehicle for several months, you should (1) drain the water in the battery. (2) make sure the battery is completely discharged. (3) fully charge the battery and remove the battery terminal cables.
101	2	The higher the voltage output, the brighter the illumination of a bulb and (1) the longer its life. (2) the shorter its life. (3) Its life will not change.
102	3	The fluid level in the battery has to be kept (1) below the fluid indication lines. (2) at the same height as the lead plates in the battery. (3) between the minimum and maximum water indication lines.
103	2	Power is supplied to the starter motor by the (1) alternator. (2) battery. (3) alterator and battery.
104	1	If you discover fluid bubbling out of the battery, you should check the (1) charging system. (2) cooling system. (3) ignition system.
105	2	The tiny hole in the battery cover is designed for (1) checking the battery fluid level. (2) releasing pressure. (3) adding battery fluid.
106	3	When engine temperature is low, the temperature indicator points to (1) H. (2) the middle of the gauge. (3) C.
107	1	The current generated by a vehicle battery is (1) DC. (2) AC. (3) High-voltage.
108	3	Battery fluid consists of (1) pure sulfuric acid. (2) distilled water. (3) sulfuric acid mixed with distilled water.
109	3	During regular maintenance, you should (1) only replace spark plugs that are malfunctioning. (2) replace the two spark plugs adjacent to the malfunctioned ones. (3) replace all the spark plugs.
110	3	Concerning the spark plug gap, (1) the larger the better. (2) the smaller the better. (3) it has to be the same as specified in the user's manual.
111	1	On cold days, it takes longer for the battery to start the car and motor rotates (1) slower than in hot weather. (2) faster than in hot weather. (3) the same as in hot weather.
112	3	The battery terminal ends are loose, so there is no way to firmly attach them to terminal posts. Therefore, you must (1) hit the terminal posts with a hammer to tighten them. (2) tighten the battery terminal posts with long screws. (3) replace the terminal cables and battery terminal ends.
113	3	If the left and right turning lights start flashing abnormally, it's probably because (1) the light bulb switch is broken. (2) the turning light fuse is burned out. (3) one of the bulbs is burned out.

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114	2	If battery fluid gets on the metal chassis of the car, you should (1) just wipe it clean. (2) rinse it off with clean water and then wipe it clean. (3) let it dry up by itself.
115	1	Wires connected to the spark plugs (1) have to be heavy duty enough to withstand high-voltage. (2) longer to perform better. (3) can just be regular copper wires which are good enough to serve the purpose.
116	3	If the starter motor won't work, it's probably because (1) the distributor cap is damaged. (2) the fan belt is lose or broken. (3) the battery terminal head has come loose.
117	3	If the battery fluid level constantly drops below the normal level, (1) there are probably too many electrical devices installed in the vehicle. (2) the electrical charging system has probably broken down. (3) Both statements are true.
118	1	If the engine speed exceeds the red area on the dashboard gauge, which of the following may happen? (1) The engine will either overheat or wear out faster. (2) Nothing will happen. (3) The brakes will easily fail.
119	3	If a fuse burns out, you (1) can replace it with any copper wire. (2) can replace it with any iron wire. (3) must replace it with a fuse that has the same amperage.
120	1	You must replace the spark plugs with (1) the same brand and same type of spark plugs. (2) a different brand of spark plugs. (3) with expensive spark plugs.
121	3	When you clean the windshield, you (1) need not spray any water on it first. Just go ahead and wipe the glass clean. (2) should wipe the glass first before spraying water on it. (3) should spray water on the glass first before you wipe it, so you don't damage the windshield.
122	3	When adding fluid to the battery, you must (1) check the fluid level in only one hole. (2) check the fluid level in only two holes. (3) check the fluid level in every hole.
123	2	If the battery fluid level is too low, you should add (1) diluted sulfuric acid. (2) distilled water. (3) electrolytes.
124	3	Which of the following is irrelevant to the number of electric devices you have installed in your vehicle? (1) Fuel consumption. (2) The fluid level in the battery and battery temperature. (3) Increase of horse power (Hp).
125	3	If the temperature gauge rises to "H" when you are driving, you must check (1) the radiator. (2) the oil level. (3) Both statements are true.
126	3	If neither your left or right low-beam headlights are working, what do you check first? (1) The battery terminal posts. (2) The ignition switch. (3) The fuse for the low-beam lights.

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127	2	If you remove the battery terminal cables when the engine is running, which of the following will burn out? (1) The battery. (2) Any electrical devices turned on at that time. (3) The ignition coil.
128	1	A fuel injection engine is ignited by (1) spark plugs. (2) a glow plug. (3) high-temperature self-combustion.
129	2	If the positive and negative terminals of a battery are connected to the wrong cable ends, (1) it doesn't matter. (2) the on-board computer and electrical devices will be damaged. (3) The fuse will burn out.
130	1	When the fuel level is low, the fuel indicator points to (1) E. (2) F. (3) H.
131	2	When you jump start the battery of another vehicle, (1) the thinner the better the jumper cables. (2) the thicker the better the jumper cables . (3) just a normal copper wire with good conductive performance is adequate to do the job.
132	1	If the alternator starts making a squeaking noise, (1) either the bearings are worn out or the front axle is bent. (2) there's too much spring action in the carbon brush spring. (3) there's not enough spring action in the carbon brush spring .
133	3	High-beam headlights help drivers see pedestrians and obstacles in the road ahead (1) for up to 40 meters. (2) for up to 60 meters. (3) for up to 100 meters.
134	1	Low-beam lights help drivers see pedestrians and obstacles in the road ahead (1) for up to 40 meters. (2) for up to 60 meters. (3) for up to 100 meters.
135	3	What is the major difference between 95 unleaded gasoline and 98 unleaded gasoline? (1) the heat value. (2) the lead content. (3) the octane value.
136	1	What purpose does a catalytic converter serve? (1) It reduces pollution. (2) It reduces engine noise. (3) It extends the service life of the engine.
137	2	If a tire is marked with 195SR14, which is true? (1) The diameter of the tire is 14 inches. (2) The diameter of the steel rim is 14 inches. (3) The diameter of the steel rim is 14 centimeters.
138	3	If you haven't changed the brake fluid for a long time, when driving downhill (1) the brakes are likely to stick. (2) the braking distance is likely to be shorter. (3) the brakes might fail.
139	1	When starting the engine, if you turn the steering wheel all the way to either the left or right and it makes a strange noise, which of the following belts is most likely the source of the problem? (1) The power steering belt. (2) The fan belt. (3) The alternator belt.
140	1	The code 185/70SR14 shown on a tire indicates (1) the tire dimensions. (2) the temperature at which the tire can be used. (3) the manufacturing date.
141	1	If you often overload a vehicle, which of the following parts will most likely suffer damage? (1) Either the suspension or shock absorbers. (2) Either the alternator or starter motor. (3) The lug nuts.

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142	2	If you use a smaller battery just to save money, which of the following will happen? (1) The headlights will consumes less power and you will save money. (2) You will have a hard time starting the engine. (3) More fuel will be consumed.
143	2	If you haven't changed the oil for a long time, which of the following will most likely become damaged? (1) The air filter. (2) Internal engine parts. (3) The high-voltage wiring.