

These are sample MCQs to indicate pattern, may or may not appear in examination

University of Mumbai
Online Examination 2020

Program: BE Automobile Engineering

Curriculum Scheme: Revised 2016

Examination: BE SEM VIII R-2016

Course Code:AEC801 and Course Name: Vehicle Maintenance

Time: 1hour

Max. Marks: 50

Q

Preventive maintenance contain?

A

Road side work

B

Duplicate parts

C

Decrease vehicle life

D

Skilled worker

Q

Cylinder must be honed to minimum ofmm after boring

A

0.03

B

0.04

C

0.05

D

0.06

Q

The purpose of the cylinder head gasket is

A

Prevent the combustion gases from leaking from the joint between the cylinder block and cylinder head

B

Prevent the engine oil from going in to combustion chamber

C

Remove impurities from cylinder head lubricating oil

D

Prevent the leakages of the oil

Q

Carbon and deposits from a wall stem is removed with

A

Reamer

B

Wire wheel

C

Small hole guage

D

Blade cleaner

Q	Pistone pin noise is similar to
A	Crank shaft knock
B	Connecting rod noise
C	Piston ring noise
D	Valve and tappet noise
Q	Your car's air filter should be inspected for signs of wear (e.g., oil or water soaked, leaking, torn or restricted) after every oil change, but how often should it be replaced even if it's not failing?
A	Once every 6 months
B	Once per year
C	Every two years
D	Every 50,000 miles
Q	An engine noise sounds like a knock at the side of the engine that is louder when the engine is cold and goes away or is reduced when the engine reaches operating temperature. Which of the following is the MOST likely cause?
A	Cam bearing
B	Main bearing
C	Piston slap
D	Wrist pin
Q	An engine overheats at higher rpms and returns to normal temperature at lower rpms. Which of these could be the cause?
A	A stuck-on cooling fan relay
B	A worn water pump belt tensioner
C	A restricted heater core
D	An incorrect coolant concentration
Q	An engine compression test identifies that one cylinder has low compression. During a leak down test of the cylinder, excessive leakage is observed and air is heard coming out of the tail pipe. Which of these could be the cause?
A	Broken piston rings
B	A blown head gasket
C	A leaking exhaust manifold gasket
D	An exhaust valve not seating

Q	CO 2 and O 2 are low. This could be because of high CO, HC and also
A	Rich mixture
B	Lean mixture
C	Defective ignition component
D	Clogged EGR passage
Q	Which gas is generally considered to be the rich indicator?
A	HC
B	CO
C	CO 2
D	O 2
Q	Which exhaust gas indicates efficiency?
A	HC
B	CO
C	CO
D	O 2
Q	All of the gases are measured in percentages except
A	HC
B	CO
C	CO
D	O 2
Q	A clogged EGR passage could cause excessive exhaust emissions
A	HC
B	CO
C	NO X
D	CO 2
Q	Which is a method in which the service life of important part is estimated based on inspection or diagnosis, in order to use the parts to the limit of their service life ?
A	Preventive Maintenance
B	Predictive Maintenance
C	Breakdown maintenance
D	Periodic maintenance
Q	Hydrocarbon solvents are

A	Flammable
B	Toxic
C	both A and B
D	Neither A nor B
Q	To resurface cylinder block decks and cylinder head-----is used
A	Milling Machine
B	Boring Bar
C	both A and B
D	Neither A nor B
Q	Technician A uses Micrometer to measure the connecting rod journal for taper. Technician B uses micrometer to measure connecting rod out of roundness. Who is correct?
A	Technician A
B	Technician B
C	both A and B
D	Neither A nor B
Q	Technician A checks crankshaft end play or end clearance with feeler gauge. Technician B uses a dial indicator. Who is correct?
A	Technician A
B	Technician B
C	both A and B
D	Neither A nor B
Q	Why cylinder head cast as a separate piece?
A	good compression ratio
B	high efficiency
C	prevent collision
D	easy removal
Q	Electrical circuit in on- board diagnostics (O B D) system are being diagnosed, Tech A says that it's a important to check the voltage drop on the power side of the circuit. Tech B says that its important to check for voltage drops at circuit ground connection, Who is correct?
A	Tech B
B	Tech A
C	Both Tech A & B
D	Neither Tech A nor B

Q	In what year was On- board daignostics II (OBD II) system enacted nation wide
A	1973
B	1981
C	1975
D	1996
Q	Backfiring in exhaust system is prevented by-
A	Diverter Valve
B	Ported vaccum Switch
C	Electronic vaccum Regulator
D	EGR valve
Q	During RPM drop test,engine speed should
A	Drop 50rpm or more
B	increase 50 rpm
C	not change
D	drop to 0 as engine stalls
Q	Engine related freeze-frame data can be accessed from the vehicle's:
A	Electronic brake control module (EBCM).
B	Transmission control module (TCM).
C	Power train control module (PCM).
D	Body control module (BCM).
Q	Which of the following is the <i>least likely</i> to cause an engine noise?
A	Carbon on the pistons
B	Cracked exhaust manifold
C	Loose accessory drive belt
D	Vacuum leak
Q	A smoothly operating engine depends on
A	High compression on most cylinders
B	Equal compression between cylinders
C	Cylinder compression levels above 100 PSI (700 kPa)
D	. Compression levels below 100 PSI .
Q	A good reading for a cylinder leakage test would be
A	Within 20 %
B	20 to 25%

C	. within 10 %.
D	within 5 %
Q	Boost pressure is generally measured in
A	Hg
B	PSI
C	H 2 O
D	lb
Q	Which is the part of precombustion emission control systems?
A	Particulate Filter
B	Catalytic Convertor
C	Muffler
D	EGR
Q	Which is the part of postcombustion emission control systems?
A	EGR
B	Intake Heat Control Systems
C	PCV
D	Catalytic Convertor
Q	Which of these provides constant yet simplified interconnectivity between on-board vehicle modules?
A	Discreet wiring
B	A controlled area network bus (CAN-bus)
C	A scan tool
D	A personal computer (PC)
Q	On-board diagnostic (OBD) systems help the service tech do all of these EXCEPT:
A	Work more efficiently.
B	Determine exactly where faults exist
C	Take the guesswork out of diagnosing vehicle problems.
D	Access data for today's sophisticated vehicles.
Q	Which of these pollutants is caused by fuel or oil vapors?
A	Volatile organic compounds (VOCs)
B	Hydrocarbons (HCs)
C	Carbon monoxide (CO)
D	Particulate matter (PM)

Q	On-board diagnostic II (O B D II) data are retrived by connecting a scan tool to the
A	Malfunction indicator lamp (M I L)
B	Data link connector (D L C)
C	Diagnostic troublr code (D T C)
D	Power train control module (P C M)
Q	Test performed on sensors such as mass air flow and throttle body is -
A	Fuel system monitoring
B	Catalyst Monitoring
C	Rationality testing
D	Circuit testing
Q	The operations of removing trapped air from the hydraulic braking system is known as?
A	Bleeding
B	Tapping
C	Cleaning
D	Booting
Q	Steering dampers can be used to reduce excessive _____.
A	negative camber
B	toe-in
C	negative camber
D	positive caster
Q	Air filters can remove particles and dirt as small as
A	5 to 10 microns
B	10 to 25 microns
C	30 to 40 microns
D	40 to 50 microns
Q	When performing an alignment, which angle is the most important for tire wear?
A	Toe
B	Camber
C	Caster
D	SAI (KPI)
Q	Like the shock absorbers, _____ provides directional stability by reducing body roll.
A	Steering
B	Wheels

C	Stabilizer bar
D	Airbags
Q	The tire size designation of P 215 / 65 R 15 89 H. Which figure denotes the diameter of the wheel?
A	215
B	65
C	15
D	89
Q	The starting system includes
A	Battery statrter ignition switch
B	Battery ignition switch distributor
C	Battery starter distributer
D	Distributor starter ignition switch
Q	A clicking noise during transmission/transaxle operation may be an indiation of
A	worn mainshaft (input shaft) bearings
B	faulty synchronizer operation
C	failed oil seals
D	worn, broken, or chipped gear teeth
Q	Worn teeth on a speed gear can cause .
A	gear clash
B	hard shifting
C	the transmission to shift into a gear
D	the gear to jump out
Q	What is the purpose of tire rotation on automobiles?
A	Avoid ply separation
B	Equalize wear
C	Get better ride
D	Reduce bump
Q	The advantage of having a tandem master cylinder arrangement in automobiles is that it
A	Enhances safety by serving two independent lines in a divided line brake circuit
B	Enhances safety by activating the brakes using vacuum pressure in the event of brake fluid loss
C	Supplies equal fluid pressure to each line of a divided line brake circuit, thereby preventing the brakes from dragging on one side
D	Boosts the brake fluid pressure to reduce the force required to depress the brake pedal

Q	Where is the overdrive located?
A	Between transmission and engine
B	Between transmission and rear axle
C	Between transmission and propeller shaft
D	Between transmission and differential
Q	A front stabilizer bar is used to?
A	Increase vehicle load carrying capacity
B	Provide a softer ride
C	Provide safety to occupant
D	Control suspension movement and body roll
Q	Which of the following does not help extend the life of your tires?
A	Regularly checking and adjusting tire pressure to recommended levels
B	Rotating your tires multiple times a year
C	Checking the tread on your tires with the "penny test."
D	Aligning the wheels once per year
Q	_____ is the angle of the steering axis of a wheel from the vertical, as viewed from the side of the vehicle.
A	Camber
B	Caster
C	Toe in
D	Toe out
Q	The discharged lead acid battery has on its plates?
A	Lead peroxide (PbO ₄)
B	Spongy lead (Pb)
C	Sulphuric acid (H ₂ SO ₄)
D	Lead sulphate (PbSO ₄)
Q	Starting motor has _____ that transmit torque in one direction and turns freely in other direction
A	commutator bar
B	overrunning clutch
C	solenoid windings
D	plunger contact disk
Q	Ignition system performs all following jobs except-
A	controls the compression pressure

B	produces spark that jumps spark plug gap
C	ignites compressed airfuel mixture
D	delivers spark at proper time
Q	Which of the following is the LEAST likely cause of a dim headlight?
A	Headlight connector corroded
B	Damaged or broken headlight assembly
C	Low alternator output
D	High resistance in the headlight wiring
Q	When performing a battery hydrometer test:
A	if the battery temperature is 0 deg F (-17.7 deg C), 0.050 should be subtracted from the hydrometer reading.
B	if the battery temperature is 120 deg F (48.9 deg C), 0.020 should be subtracted from the hydromter reading.
C	the maximum variation in cell hydrometer readings is 0.050 specific gravity points.
D	The battery is fully charged if all cell hydrometer readings exceed 1.225
Q	For best tire life, most vehicle and tire manufacturers recommend tire rotation every
A	5,000 km
B	10,000 km
C	15,000 km
D	20,000 km
Q	What lubricant should be used when mounting a tire?
A	Silicone spray
B	Grease
C	Water-based soap
D	SAE 10W-30 engine oil
Q	The most common torque specification range for lug nuts is
A	125 to 150 lb-ft
B	100 to 120 lb-ft
C	80 to 100 lb-ft
D	60 to 80 lb-ft
Q	Engine oil passages in an engine block are called
A	Oil passages
B	Oil galleries

C	Weep holes
D	Oil holes
Q	magnetic field is created in the _____ in an alternator
A	(AC alternator).
A	Stator
B	Rotor
C	Diodes
D	Drive-End frame
Q	A battery can be charged by
A	Adding distilled water
B	Adding sulphuric acid
C	Applying voltage in the reverse direction to that of charging
D	Applying voltage in the same direction to that of charging
Q	Heat transfer is improved from the coolant to the air when
A	The temperature difference is great
B	The temperature difference is small
C	The coolant is 95% antifreeze
D	Both a and c
Q	Which of these should the technician do first when aligning a light truck equipped with a torsion bar front suspension?
A	Adjust thrust angle
B	Adjust caster/camber
C	check/adjust toe
D	check /adjust curb height
Q	Pressure inside the lubrication system is controlled by
A	Oil pump
B	Oil filter
C	Relief Valve
D	Supply voltage
Q	Trapped air in cooling system is purged with the help of-
A	Bleed Valve
B	Relief valve
C	core plug

D	Safety cap
Q	Which of these would most likely cause a fuel-injected engine to have low fuel pressure?
A	A clogged fuel filter
B	A clogged fuel injector
C	A restricted fuel return line
D	A stuck-closed fuel pressure regulator
Q	Many cleaning methods involve chemicals that are hazardous to use and expensive to dispose of after use. The least hazardous method is generally considered to be the
A	Pyrolytic oven
B	Hot vapor tank
C	Hot soak tank
D	Cold soak tank
Q	Magnetic crack inspection
A	Uses a red dye to detect cracks in aluminum
B	Uses a black light to detect cracks in iron parts
C	Uses a fine iron powder to detect cracks in iron parts
D	Uses a magnet to remove cracks from iron parts
Q	Many aluminum piston skirts are plated with
A	Tin
B	Lead
C	Antimony
D	Terneplate
Q	Piston damage is most likely to be caused by
A	Valves hitting the piston head
B	Abnormal combustion
C	Lugging the engine during operation
D	High engine speeds that can break piston heads
Q	When a battery becomes completely discharged, both positive and negative plates become _____ and the electrolyte becomes

A	H ₂ SO ₄ ; Pb
B	PbSO ₄ ; H ₂ O
C	PbO ₂ ; H ₂ SO ₄
D	PbSO ₄ ; H ₂ SO ₄
Q	A fully charged 12-volt battery should indicate
A	12.6 volts or higher
B	11
C	10 volts
D	24
Q	Deep cycling means
A	Overcharging the battery
B	Overfilling or underfilling the battery with water
C	The battery is fully discharged and then recharged
D	The battery is overfilled with acid (H ₂ SO ₄)
Q	When jump-starting
A	The last connection should be the positive post of the dead battery
B	The last connection should be the engine block of the dead vehicle
C	Both cars should be running
D	The last connection should be the negative post of the dead battery
Q	Starter motors operate on the principle that
A	The field coils rotate in the opposite direction from the armature
B	Opposite magnetic poles repel
C	Like magnetic poles repel
D	The armature rotates from a strong magnetic field toward a weaker magnetic field
Q	The engine oil viscosity is defined by -----rating
A	Automatic transmission fluid
B	Society of automotive engineers
C	Gross vehicle weight
D	American petroleum institute
Q	Which of the following pump is used in a water cooling system?
A	centrifugal pump
B	reciprocating pump
C	rotary pump

D	gear pump
Q	Following is the correct order in which fuel is injected
A	Fuel tank – Fuel filter – Fuel feed pump – Fuel injection pump – injector
B	Fuel tank – Fuel feed pump – Fuel filter – Fuel injection pump – injector
C	Fuel tank – Fuel filter – Fuel injection pump – Fuel feed pump – injector
D	Fuel tank – Fuel injection pump – Fuel filter – Fuel feed pump – injector
Q	Running Air conditioning system without refrigerant
A	Life of compressor increase
B	Life of compressor decreases
C	Compressor may seize
D	Efficiency of the compressor decrease
Q	What is the colour of an HFC-134a container
A	White
B	Green
C	Blue
D	Silver
Q	Where in the AC system the receiver drier located
A	Right after the compressor
B	Right after the orifice tube
C	Downstream from the condenser
D	Downstream from the accumulator
Q	Air circulation in power ventilating system is done by
A	ram air
B	motor
C	fan
D	compressor
Q	Refrigerant oil marked PAG oil is used --
A	Both refrigerant system
B	only R-134a system
C	only R-12 system
D	in any air conditioning system
Q	Refrigerant is measured in
A	in grams

B	in ounces
C	in litres
D	in pounds and ounces
Q	Which of the following conditions is the Most likely cause of a vehicle overheating?
A	Electric cooling fan runs all the time
B	Restricted heater core
C	Thermostat stuck open
D	Clogged radiator
Q	Which of the following will occur to an air conditioning system if the power steering is sharply moved from lock to lock while the engine is running?
A	Pressure in the AC high side will increase.
B	Pressure in the AC low side will decrease.
C	The compressor will increase the pressure output.
D	The compressor clutch may disengage.
Q	A customer complains that there is insufficient heat coming from the heater. While checking the cooling system, it is noticed that the upper radiator hose is not getting hot. Which of the following could be the cause?
A	The thermostat is stuck open.
B	The thermostat is stuck closed.
C	The radiator fan is continuously operating.
D	The antifreeze-to-water mixture is not correct
Q	An air conditioning system compressor may operate under which of the following conditions?
A	When the vehicle is operated at wide open throttle.
B	When the heater controls are set to defrost.
C	When the heater controls are set to vent.
D	When the heater controls are set to floor - recirculate.
Q	In a refrigeration system, the expansion device is connected between the ____
A	Condenser and receiver
B	Compressor and condenser
C	Receiver and evaporator
D	Evaporator and compressor
Q	Cabin filters contain_____ to absorb odors.
A	Perfume

B	Activated charcoal
C	Paper filter material
D	Synthetic fibers
Q	Prior to recovery, an unknown refrigerant is identified. The technician should:
A	discharge it into the atmosphere.
B	recover it and treat it as contaminated
C	recover it and recycle it as R-12.
D	recover it and recycle it as R-134a
Q	R-12 should be stored and sold in
A	light white container
B	light blue container
C	light red container
D	light black container
Q	The refrigerant container filling level should not exceeds to
	60% of
	the container's gross weight rating60% of
	the container's gross weight rating60% of
A	the container's gross weight rating
	50% of
	the container's gross weight rating50% of
	the container's gross weight rating50% of
B	the container's gross weight rating
	70% of
	the container's gross weight rating70% of
	the container's gross weight rating70% of
C	the container's gross weight rating
	80% of
	the container's gross weight rating80% of
	the container's gross weight rating80% of
D	the container's gross weight rating
Q	R-134a should be stored in
A	light white container
B	light blue container

C	light red container
D	light black container
Q	To charge an air-conditioning system while it is running, the refrigerant should be added to
A	high side
B	low side
C	both high side and low side
D	either high side or low side
Q	In ASE you must take and pass recertification test after every
A	4 years
B	5years
C	6 years
D	10 years
Q	Which of the following is not a component of packaged air conditioners?
A	Compressor
B	condenser
C	chiller
D	evaporator
Q	The last step in the diagnostic procedure when attempting to solve an HVAC customer problem is _____
A	.
B	Determine the root cause
C	Verify the repair
D	Recharge the system
Q	Perform a visual inspection
Q	The heating system's primary job is to provide a comfortable passenger compartment by _____ of compartment
A	Increasing temperature
B	Reducing temperature
C	Humidifying
D	Dehumidifying