

# JONES COUNTY CAREER-TECHNICAL CENTER

REX BUCKHAULTS, DIRECTOR  
AMANDA JONES, ADM. ASSISTANT  
DEBRA BUSH, COUNSELOR

2409 MOOSE DRIVE  
LAUREL, MS 39440  
PHONE: 601.425.2378 FAX: 601.425.2349

April 27, 2020

Dear Parents and Career Tech Students:

As we work towards the end of the school year the Faculty, Staff and Administration of the Jones County Career Technical Center, is providing additional enrichment activities for our students and support for our parents as we continue through these difficult times.

The following Part 2 enrichment activities will allow students to continue reviewing the instruction that they already have received this year.

Again you will find questions with answers for you to study and review. There are no assignments to be returned to school.

If the JCCTC can be of any assistance to our students and parents with the enrichment activities, please feel free to call us at 601-425-2378 between the hours of 9:00 a.m. and 1:00 p.m. or contact the instructor by email. Email addresses are located under the program name on our webpage.

Sincerely,



Rex Buckhaults  
Director, JCCTC

Automotive Service I Enrichment Activity

1. All of the following would cause a low brake fluid level in a disc brake system, EXCEPT:
  - A) a brake fluid leak.
  - B) worn brake pads.
  - C) overfilled brake fluid reservoir.
  - D) None of the answers listed
  
2. Which of the following power steering fluid conditions would indicate that the power steering fluid does NOT need to be changed?
  - A) Dark-colored fluid
  - B) Clear fluid
  - C) New-colored fluid
  - D) All of the answers listed
  
3. In a manual transmission/transaxle, \_\_\_\_\_ lubricates the bearings.
  - A) fluid splashing
  - B) a hydraulic pump
  - C) an electric pump
  - D) pneumatic pressure
  
4. Which of the following allows for the checking of automatic transmission fluid?
  - A) A dipstick
  - B) A fill plug
  - C) A level plug
  - D) All of the answers listed
  
5. Typically, the color of the filler cap of a diesel exhaust fluid (DEF) system is:
  - A) red.
  - B) purple.
  - C) blue.
  - D) None of the answers listed
  
6. Windshield washer fluid is formulated to protect against:
  - A) freezing temperatures.
  - B) high-speed driving.
  - C) erratic driving habits.
  - D) boiling temperatures.

7. The windshield washer fluid on a vehicle should be checked whenever the:
  - A) vehicle's oil is changed.
  - B) vehicle is fueled.
  - C) engine coolant is flushed.
  - D) brake fluid is flushed.
  
8. A typical engine drive belt can directly operate all of the following, EXCEPT:
  - A) the electric cooling fan.
  - B) the air conditioning compressor.
  - C) the alternator.
  - D) the power steering pump.
  
9. There are two types of engine drive belts: serpentine type and:
  - A) B-type.
  - B) V-type.
  - C) X-type.
  - D) None of the answers listed
  
10. Automotive drive belts should be checked for:
  - A) cracks.
  - B) glazing.
  - C) oil soaking
  - D) All of the answers listed
  
11. All of the following are reasons to recommend a drive belt replacement, EXCEPT:
  - A) oil soaking.
  - B) bottoming out.
  - C) tears.
  - D) dusty.
  
12. Glazing is \_\_\_\_\_ on the surface of the belt, which comes in contact with the pulley.
  - A) shininess
  - B) dullness
  - C) deep grooves or cracking
  - D) None of the answers listed

13. The location of the air filter will vary, depending on:
  - A) the type of fuel system on the vehicle.
  - B) the trim package of the vehicle.
  - C) if it has a serpentine drive belt or not.
  - D) None of the answers listed
  
14. Which of the following is NOT a typical coolant hose in a coolant system?
  - A) Upper radiator hose
  - B) Lower radiator hose
  - C) Air conditioning hose
  - D) Heater hose
  
15. The engine needs a free flow of clean air to operate correctly and with low:
  - A) emissions.
  - B) power.
  - C) noise level.
  - D) All of the answers listed
  
16. When should a vehicle be checked for overall roadworthiness?
  - A) Once a month or prior to a long trip
  - B) Only when there is a problem
  - C) Every 100 miles
  - D) None of the answers listed
  
17. To begin a vehicle inspection, the technician should:
  - A) park the vehicle in a well-lit area.
  - B) turn the engine off and unlock the doors.
  - C) unlock the trunk or rear hatch.
  - D) All of the answers listed
  
18. Technician A says that during an exterior inspection of a vehicle, you should open and close doors to check that they are operating correctly. Technician B says you should never pull on bumpers or fenders to ensure they are secure, because this could damage them. Who is correct?
  - A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B

19. Technician A says wiper-blade condition can cause a vehicle to fail a safety inspection in some states. Technician B says you should check that wiper blades are not missing, torn, or worn out. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B
20. Technician A says that improper handling of a windshield wiper can lead to a broken windshield. Technician B says you should place a fender cover on the windshield to prevent damage while working on windshield wipers. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B
21. Usually, any wiper blade that is more than \_\_\_\_\_ old will be ready for replacement.
- A) 1 month
  - B) 1 year
  - C) 2 months
  - D) 2 years
22. Technician A says you should test new wiper blades against a dry windshield to ensure they seat properly. Technician B says you should wet the windshield and operate the wipers to check their performance, making sure they remove the water evenly. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B
23. Technician A says you should always clean a windshield before inspecting it. Technician B says you should inspect the windshield for cracks or signs of delamination. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B

24. All of the following are considered interior lighting on a typical vehicle, EXCEPT:
- A) parking lights.
  - B) courtesy lights.
  - C) dome lights.
  - D) map lights.
25. Technician A says unlocking doors on most vehicles will turn on interior lights. Technician B says that on most vehicles, the interior light will not turn on even if a door is opened. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B
26. Technician A says that when checking exterior lights, you can have an assistant stand in front of and behind the vehicle to report any issues with the lamps. Technician B says that when you are performing an exterior lamp check, it should be done in the brightest area possible, like outside on a sunny day. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B
27. Which of the following is LEAST likely to be done during a tire inspection?
- A) Checking tire pressure
  - B) Checking wear patterns and looking for cuts
  - C) Checking TPMS operation
  - D) Checking tread depth
28. Technician A says tires are inflated with hydrocarbons to support the vehicle's weight. Technician B says tires are inflated with Freon to support the vehicle's weight. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B

29. Technician A says recommended tire pressures for the vehicle are located on the vehicle manufacturer's tire placard, typically on the driver's side door pillar. Technician B says the maximum tire pressure is located on the tire sidewall. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B
30. The exterior lights on a vehicle include all of the following, EXCEPT:
- A) headlights.
  - B) taillights.
  - C) dome lamps.
  - D) license plate lights.
31. Technician A says you should always check the brake pedal feel and travel before driving a vehicle into or out of the shop. Technician B says that all vehicles must be manufactured with either a foot brake (service brake) system or a parking brake system. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B
32. Service brake concerns include all of the following, EXCEPT:
- A) high-pitched scraping noises.
  - B) a low pedal.
  - C) a hard pedal.
  - D) a parking brake handle ratchet that doesn't stay up.
33. Technician A says that a parking brake should be tested, especially in freezing weather, to ensure that it is working properly. Technician B says that parking brake cables are designed not to freeze in climates with below-freezing temperatures. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B

34. The vehicle horn is usually controlled by all of the following, EXCEPT:
- A) a relay.
  - B) the body control module (BCM).
  - C) the air bag module.
  - D) None of the answers listed
35. Technician A says that instrument panel warning lamps can indicate faults with various systems on the vehicle. Technician B says that instrument panel warning lamps can indicate proper operation of various vehicle systems. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B
36. All of the following fluids are used in vehicle brake systems, EXCEPT:
- A) DOT 3.
  - B) DOT 6
  - C) DOT 4.
  - D) DOT 5.
37. Technician A says DOT 3 and DOT 4 brake fluid may be clear or a light amber color. Technician B says DOT 5 is usually red in color and is slightly slippery. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B
38. Which of the following is checked during an under-vehicle inspection?
- A) Front-wheel drive axles
  - B) Exhaust system
  - C) The transmission case
  - D) All of the answers listed
39. What color is the anti-lock braking system (ABS) lamp usually colored?
- A) Amber
  - B) Green
  - C) White
  - D) Red



40. Inspection of the fuel tank should include:
- A) the filler tube and hose.
  - B) the vent and fuel delivery lines.
  - C) the fuel tank straps.
  - D) All of the answers listed

## Answer Key

1. C
2. B
3. A
4. D
5. C
6. A
7. A
8. A
9. B
10. D
11. D
12. A
13. A
14. C
15. A
16. A
17. D
18. A
19. C
20. C
21. B
22. B
23. C
24. A
25. A
26. A
27. C
28. D
29. C
30. C
31. A
32. D
33. D
34. C
35. C
36. B
37. A
38. D
39. A
40. D

Automotive Service I Enrichment Activity

1. All of the following are important things to remember when using tools, EXCEPT:
  - A) identify the most effective tools to do the task.
  - B) inspect the tool before using it.
  - C) always use tools correctly.
  - D) None of the answers listed
  
2. The term \_\_\_\_\_ equipment covers a wide range of tools and equipment required in a compressed air system.
  - A) compressed-air
  - B) air-cooled
  - C) compressor-companion
  - D) None of the answers listed
  
3. \_\_\_\_\_ are fitted to compressed air systems to remove the moisture or water from the compressed air.
  - A) Air driers
  - B) Anti-water modules
  - C) Heat packs
  - D) None of the answers listed
  
4. Fasteners may have to be measured by a ruler or \_\_\_\_\_ caliper to identify their designation.
  - A) vernier
  - B) angled
  - C) polished
  - D) None of the answers listed
  
5. Do not use flammable cleaners or water on \_\_\_\_\_ equipment.
  - A) hydraulic
  - B) electrical
  - C) pneumatic
  - D) None of the answers listed
  
6. When a large chisel needs a really strong blow, you should use a:
  - A) steel hammer.
  - B) sledge hammer.
  - C) hard rubber mallet.
  - D) dead blow hammer.

7. \_\_\_\_\_ are designed to secure parts that are under various tension and sheer stresses.
- A) Fasteners
  - B) RTV sealants
  - C) Chemical welds
  - D) None of the answers listed
8. A \_\_\_\_\_ is a cylindrical piece of metal with a hexagonal head on one end and a thread cut into the shaft at the other end.
- A) nut
  - B) screw
  - C) bolt
  - D) None of the answers listed
9. A torque wrench is also known as a:
- A) tension wrench.
  - B) torque limiter.
  - C) tightness gauge.
  - D) torque stick.
10. Torque wrenches come in all the following types, EXCEPT:
- A) beam style.
  - B) clicker.
  - C) dial.
  - D) hammer style.
11. Sockets most commonly come in which of the following configurations?
- A) 12 and 6 points
  - B) 6 and 5 points
  - C) 11 and 7 points
  - D) 10 and 5 points
12. Which of the following is NOT a type of pliers used in the automotive industry?
- A) Needle-nosed pliers
  - B) Open-end pliers
  - C) Diagonal cutting pliers
  - D) Snap ring pliers

13. Which of the following is a cutting tool?
- A) Bolt cutters
  - B) Tin snips
  - C) Aviation snips
  - D) All of the answers listed
14. A screw or bolt with a cross-shaped recess requires a(n) \_\_\_\_\_ screwdriver or a Pozidriv screwdriver.
- A) Phillips-head
  - B) offset
  - C) ratcheting
  - D) impact
15. A \_\_\_\_\_ is a special-purpose tool that is often used for moving components into place without damaging the item being moved.
- A) claw hammer
  - B) hard rubber mallet
  - C) ball-peen hammer
  - D) wood mallet
16. Which of the following is a typical type of punch used in automotive service and repairs?
- A) Prick punch
  - B) Center punch
  - C) Drift punch
  - D) All of the answers listed
17. Which of the following is a type of vice commonly used in automotive shops?
- A) Drill vice
  - B) Seat vice
  - C) Standing vice
  - D) None of the answers listed
18. Which of the following is a type of tap?
- A) Taper tap
  - B) Intermediate tap
  - C) Bottoming tap
  - D) All of the answers listed

19. Technician A states that there are many applications for blind rivets, and various rivet types and tools may be used to do the riveting. Technician B states that a typical pop or blind rivet has a body, which will form the finished rivet, and a mandrel, which is discarded when the riveting is completed. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B
20. Which of the following is part of a rivet's anatomy?
- A) Mandrel head
  - B) Rivet body
  - C) Shank
  - D) All of the answers listed
21. A \_\_\_\_\_ is a flexible type of ruler and is a common measuring tool.
- A) yard stick
  - B) measuring tape
  - C) gauge rod
  - D) None of the answers listed
22. \_\_\_\_\_ cut threads inside holes or nuts.
- A) Taps
  - B) Pliers
  - C) Drills
  - D) Clamps
23. To maintain accuracy of measurements, it is important that both the micrometer and the items to be measured are clean and free of any:
- A) dirt and debris.
  - B) aluminum.
  - C) chrome plating.
  - D) None of the answers listed
24. Grinding wheels come in grades from coarse to:
- A) semi-course.
  - B) very fine.
  - C) smooth.
  - D) None of the answers listed

25. The maximum gap between a bench grinder's grinding wheel and tool rest should be:
- A) 0.125"
  - B) 3.8 mm
  - C) 1.025"
  - D) 3.0 mm
26. Technician A states that as the abrasive wheel on a grinding wheel wears down, the gap between the wheel and the tool rest will decrease. Technician B states that if the gap between the grinding wheel and the tool rest is too large, the metal could be pulled into the gap, which could cause the metal to be thrown with great force. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B
27. The smaller the grinder, the \_\_\_\_\_ the speed it turns.
- A) lower
  - B) higher
  - C) more steady
  - D) None of the answers listed
28. Air tools use compressed air at \_\_\_\_\_ pressure to operate.
- A) low
  - B) high
  - C) moderate
  - D) None of the answers listed
29. To correctly operate an air impact wrench, you should:
- A) select the properly sized impact gun and socket.
  - B) inspect the impact gun and socket for damage.
  - C) lubricate the impact gun if an automatic oiler is not installed in the system.
  - D) All of the answers listed
30. Which of the following types of PPE must be worn when using a pressure washer in the automotive industry?
- A) Goggles
  - B) Full-length pants
  - C) Face shield
  - D) All of the answers listed

31. Technician A says that some solvents can damage certain vehicle components. Technician B says incorrect handling of a solvent tank can cause health risks to coworkers. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B
32. Pressure washers and cleaners are valuable tools for cleaning all of the following, EXCEPT:
- A) vehicles.
  - B) engine compartments.
  - C) metal components.
  - D) electrical components.
33. A cutting torch is used for all of the following, EXCEPT:
- A) removal of rusted bolts.
  - B) removal of exhaust clamps.
  - C) cutting wrenches.
  - D) cutting flammable materials.
34. Which of the following is NOT one of the three most common shapes of flares?
- A) Single flare
  - B) Double flare
  - C) Tripe flare
  - D) ISO flare
35. A cold chisel has a flat blade made of high-quality steel and a cutting angle of approximately \_\_\_\_ degrees.
- A) 40
  - B) 50
  - C) 60
  - D) 70
36. \_\_\_\_\_ is a mix of metals with low melting points and is used to join metals together.
- A) Rosin
  - B) Solder
  - C) Steel
  - D) Plasma



37. \_\_\_\_\_ is performed to restore fastening integrity to a damaged fastener.
- A) Soldering
  - B) Thread repair
  - C) Welding
  - D) Cutting
38. What color is the acetylene hose used on an oxyacetylene torch?
- A) Black
  - B) Red
  - C) Green
  - D) Blue
39. What type of clothing will NOT provide enough protection because ultraviolet light and sparks of hot metal will pass through them?
- A) T-shirts
  - B) Nylon
  - C) Polyester blend
  - D) All of the answers listed
40. Technician A says that a micrometer should be checked for calibration before use. Technician B says the outside micrometer measures inside dimensions. Who is correct?
- A) Technician A
  - B) Technician B
  - C) Both Technician A and Technician B
  - D) Neither Technician A nor Technician B

## Answer Key

1. D
2. A
3. A
4. A
5. B
6. B
7. A
8. C
9. A
10. D
11. A
12. B
13. D
14. A
15. B
16. D
17. A
18. D
19. C
20. D
21. B
22. A
23. A
24. B
25. A
26. B
27. B
28. B
29. D
30. D
31. C
32. D
33. D
34. C
35. D
36. B
37. B
38. B
39. D
40. A