

Student Name _____ Date _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Two basic principles always taken into consideration by persons familiar with the proper use of shop pressers are: 1) _____
 - A) Always use the largest press available for every job as the part being pressed might stick half way through with a small press. Personal safety
 - B) Personal safety and the care of the workpiece to prevent it from being damaged
 - C) Care not to overload the press by trying to press an oversized part and personal safety
 - D) Care should be taken not to press too fast, as this creates friction which produces heat
- 2) You can use the arbor press or shop press to: 2) _____
 - A) Install and remove mandrels, bushings, bearings and shafts
 - B) Make keyseats on shafts
 - C) Drill holes in metal parts
 - D) All of the above
- 3) An arbor press designed with a rack and pinion is what type? 3) _____
 - A) Mechanical
 - B) Gear driven
 - C) Hydraulic
 - D) Hydro-mechanical
- 4) To avoid failures from seizing when pressing a shaft or mandrel, you should: 4) _____
 - A) Apply a high pressure lubricant to the bore and shaft
 - B) Use a good grade of lubricating oil on both parts and don't stop after you start pressing
 - C) Used sulfurized cutting oil on both parts
 - D) Press them together dry
- 5) A loose arbor press ram may cause: 5) _____
 - A) keyway broach to twist and cause an excessively wide keyway and a mandrel to "hog" in half way through the bore
 - B) A loss of pressure making it difficult to force a broach through the work
 - C) A keyway broach to "hog" in or a bushing to twist out of alignment
 - D) None of the above
- 6) The amount of pressure you should apply to a bushing in an arbor press would be: 6) _____
 - A) Just the amount needed to push it through the bore and when slight additional pressure is felt, stop pressing
 - B) About 5 tons
 - C) Between 10 and 30 tons
 - D) Just the amount needed to push it through the bore and then considerable more force applied to make sure it is seated
- 7) A ball bearing that is on a shaft or in a housing should be removed: 7) _____
 - A) By applying pressure only to the race that is supported securely
 - B) By pressing on and supporting any part of the bearing that is available
 - C) Only by pressing on the inner race when the outer race is in a housing or by pushing on the outer race when the inner race is on a shaft
 - D) B and C above

- 8) A mandrel will slip into a bore on one of its ends. Why then does it press tightly in a bore? 8) _____
- A) The high pressure lubricant applied to its surface causes the bore to tighten
 - B) It has been made rough by a knurling process in the center thus enlarging it slightly
 - C) It is made in a "barrel" shape so that it is slightly larger in the center than at the ends
 - D) It is made very slightly tapered so that it is somewhat larger at one end
- 9) What two important things should be done before pressing in a bushing? 9) _____
- A) Chamfer and lubricate the bore
 - B) Oil the bushing and start it in the bore with a hammer before you start pressing
 - C) Clean all the oil off the bushing and wash your hands so you won't get contaminated
 - D) None of the above
- 10) When using keyway broaches in an arbor press, you should avoid: 10) _____
- A) Using an ill fitting guide bushing and having less than two broach teeth contacting the workpiece
 - B) Lack of lubrication of the broach and using the broach on hard materials
 - C) Loose press rams and a lack of clearance for the broach through the press plate
 - D) All of the above