

*Q1: Put T for true or F for false in front of the following statements:*

- 2. The element of the grinding machine that provides the cross movement to the work piece is the wheel head
- 3. As the temperature of cutting tool increases, the hardness of the cutting tool will increase also
- 4. The operation that is suffering from cycling of impact and thermal shock on every rotation is grinding
- 5. The type of wood that comes in three layers from the same type with crossing fibers and it is used for low stress applications is the block board
- 6. As an example of tree wood that belongs to hard wood is the Cedar Wood
- 7. The type of wear that occurs suddenly (catastrophic) in turning operation is known as built up edge.
- 8. One of the four operations, i. e. milling, grinding, drilling and shaping can be performed on a lathe. This operation is the drilling.
- 9. An example of an operation that uses single- point cutting edge tool is slotting
- 10. A suitable way to hold a work piece in a vertical milling machine is by using the spindle
- 11. Machining is the manufacturing process in which the size, shape, or surface properties of a part are changing by removing the excess material
- 12. The electrical connection at home is in parallel when it uses single phase and in series when it uses two phases.

***Q2: Complete the following statements***

1. For machining, the substances that is consider excellent coolant and poor lubricant is -----
2. The highest number of cutting tool edges among milling cutters, chisel, grinding wheel and saw exists in -----
3. What causes temperature to increase in turning operation is an increase in velocity, a decrease in depth of cut, an increase in feed rate and a decrease in -----
4. One reason for using cutting fluid in machining is to protect the new surface from -----
5. The component of a lathe that is used to provide the power to rotate the work piece is the -----
6. The similarity between shaping and turning operations is that both are using a cutting tool that has the same number of cutting edge. This number is -----
7. In the up-milling operation, the feed direction of the work piece is (same, opposite or perpendicular) to the milling cutters. -----
8. A smooth surface generally involves the following combination of cutting conditions, decrease depth of cut, increase velocity, and decrease -----
9. This type of wood joint is -----
10. The operation that is sued to enlarge an existing hole is known as drilling -----
11. The operation in the figure is known as -----
12. What distinguishes milling from turning is that in turning the work piece is rotating while in milling it is fed -----
13. One of the main components (in addition to power supply) in the 12-volt electrical home bell is the -----

14. The clamping force that is used to grasp a work piece on a table in grinding operation is -----
15. The purpose of using a grinding operation is to do one of the following: cutting slots, making smooth surfaces, making holes or separating work piece into two parts.
16. A suitable way to hold a work piece in a vertical milling machine is by using -----

***Q3: Complete the following statements:***

1. The property of material that represents the ability of a material to resist scratching, abrasion, and penetration is -----.
  
2. The new material that is formed when two or more relatively pure metals are melted together to form a new metal having different properties is called.
  
3. The main source of many accidents in a work shop is -----
  
4. The good way to protect your eyes from the bright light emitted from a welding operation is by either goggles face shield or -----

5. The reading on the following figure is -----
  
6. The accuracy of the following measurement device is
  
7. The name of this devices.
  
8. In casting process, the other type of allowance that is needed to be considered in addition to shrinkage, machining and distortion allowances is -----
  
9. One of the properties of sand in casting process that is needed to prevent trapping of gases inside the mold when filled with molten metal is know as: -----
  
10. The tool that is used to produce ways to insure the escape of gases when the casting is poured is known as -----

11. The following filling operation type is known as -----
12. The name of the distance shown on the figure is -----
13. The tool that is used to mark the centers on a working piece is known as -----
14. Files are classified based on type, length and -----
15. What distinguished acetylene cylinder from the oxygen cylinder is that it is taller and its color is -----
16. The average distance between the electrode and a work piece in electric arc welding is should be approximately -----
17. The type of flame in the oxyacetylene welding operation that has oxygen to acetylene ratio 1: 3 is know as -----
18. The other objective of using the electrode in arc welding other than being a source of metal. Completing the circuit by forming an arc is -  
-----

19. In spot welding and before the current passes through the electrodes and the work piece the welded cycle starts with the electrodes contacting the work piece using -----

20. The processes that is used to form a sheet with 45° is -----

***Q1: Put T for True or F for False in front of the following statements:***

- 1. The objective of the sprue in the casting process is to compensate for shrinkage of the molded pattern during cooling
- 2. the flow of material in a casting process starts at the riser go through the runner and ends at the cavity
- 3. The accuracy of a measurement reading represents the closeness of the reading to the true value
- 4. The number of teeth in course files is larger than that of smooth files
- 5. In electric arc welding and to strengthen the work piece, there must be direct contact between the work piece and the electrode
- 6. In oxy-acetylene welding the highest temperature occurs when the flame is the natural flame in which the temperature can reach up to 6000F.

- 7. electrode pressure and welding time are the most important factors in Spot welding.
- 8. Based on the classifications of the properties of materials, the resistance to corrosion is considered one of the mechanical properties
- 9. In order to minimize the risk of shock and fire, any electric device using current carrying condense must be connected to earth
- 10. the micrometer can be used to measure internal and external diameters in addition to depth

***Q2: Mention what is the name of the shown Figures?***

***Q3: Mention what is the name of the shown figures/operations?***

***Note:***

- 1. 2, 4, 7, 8, 9, the name of the components.
- 3, 12 the name of the machine.
- 5, 10 the name of the operation
- 11 type of the joint
- 6, name of the tool.