Assignment 6
The due date for submitting this assignment has passed.
Any scores recorded if you have not submitted this assignment.

Assignment
1. The primary deformation zone in metal cutting operation is located around which of the following?
   - Tool chip interface
   - Around shear plane
   - Tool-workpiece interface
   - Tool face
   The answer is incorrect.
   Answer: Around shear plane

2. Temperature in the primary and secondary deformation zone is generally due to:
   - Friction between tool and chip and plastic flow of the tool with workpiece respectively.
   - Plastic deformation of metal in shear zone and friction between tool and chip respectively.
   - Rubber action of tool piece with workpiece and plastic deformation of metal in shear zone respectively.
   - None of the above.
   The answer is incorrect.
   Answer: Rubber action of tool piece with workpiece and plastic deformation of metal in shear zone respectively

3. If heat transferred to atmosphere is neglected then what is the average amount of heat in % carried away by the chips?
   - 10
   - 20
   - 30
   - 60
   The answer is incorrect.
   Answer: 60

4. Which of the following condition/bond zone produce continuous chips?
   - Large rake angle
   - Lower cutting speed
   - Cutting with cutting fluid
   - All of the above.
   The answer is incorrect.
   Answer: Cutting with cutting fluid

5. If the cutting speed is doubled, then what will be the effect on tool life according to Taylor's tool life equation?
   - Tool life will be halved the original one
   - Tool life will be 1/6 times the original one
   - Tool life will be double the original one
   - Tool life will be 100 times the original one
   The answer is incorrect.
   Answer: Tool life will be 100 times the original one

6. Which of the following is not an example of solid-state welding?
   - Diffusion welding
   - Oxyacetylene welding
   - Friction welding
   - Cold welding
   The answer is incorrect.
   Answer: Oxyacetylene welding

7. Induction welding is an example of:
   - Cold welding
   - Chemical welding
   - Electric welding
   - Inert gas welding
   The answer is incorrect.
   Answer: Electric welding

8. Which of the following is not an important factor in solid-phase welding?
   - Type of bonding
   - Surface deformation
   - Recrystallization
   - Surface films
   The answer is incorrect.
   Answer: Surface films

9. All current welding machines with a linear power source characteristic provide equivalent voltage of 60 V and instant current.
   - False
   - True
   The answer is incorrect.
   Answer: False

10. Which cutting tool geometry is used for better chip control?
    - V = 20°, L = 60°, Y = 15°
    - V = 30°, L = 45°, Y = 15°
    - V = 20°, L = 45°
    - V = 30°, L = 60°
    The answer is incorrect.
    Answer: V = 20°, L = 60°, Y = 15°