Assignment 8

The due date for submitting this assignment has passed. Due on 2018-03-21, 23:59 IST.

Submitted assignment

1) Extrusion ratio is defined as 
Where \( A_0 \) = original area of billet & \( A_f \) = cross-sectional area of extruded product

- \( A_f / A_0 \)
- \( A_f \times A_0 \)
- \( A_0 / A_f \)
- \( A_0 + A_f \)

No, the answer is incorrect.
Score: 0

Accepted Answers:
\( A_0 / A_f \)

2) Which of the following relation holds good for extrusion ratio (R) and frictional reduction in area of extruded product (r)?

- \( R = 1 / (1 + r) \)
- \( R = 1 + r \)
- \( R = (1 + r)^2 \)
- \( R = 1 / (1 - r) \)

No, the answer is incorrect.
Score: 0

Accepted Answers:
\( R = 1 / (1 - r) \)

3) In shearing maximum punch force is 
Where \( s_u \) = ultimate tensile strength of sheet, \( t \) = thickness of sheet & \( L \) = total length of sheared edge

- \( F = 0.7 \times s_u \times t \times L \)
- \( F = 3 \times s_u \times t \times L \)
- \( F = 5 \times s_u \times t \times L \)
- \( F = 9 \times s_u \times t \times L \)

No, the answer is incorrect.
Score: 0

Accepted Answers:
\( F = 3 \times s_u \times t \times L \)
4) In progressive forming
   - Parts are formed at the successive stages which are carried out in different die on each stroke of the process
   - Parts are formed at the successive stages which are carried out in the same die on each stroke of the process
   - Sheet metal is stretched and simultaneously bent to achieve shape change
   - None of these

   **No, the answer is incorrect.**
   Score: 0
   Accepted Answers:
   *Parts are formed at the successive stages which are carried out in the same die on each stroke of the process*

5) A moving mandrel is used in
   - Wire drawing
   - Tube drawing
   - Metal cutting
   - Forging

   **No, the answer is incorrect.**
   Score: 0
   Accepted Answers:
   *Tube drawing*

6) Collapsible tubes are made by
   - Drawing
   - Spinning
   - Rolling
   - Impact extrusion

   **No, the answer is incorrect.**
   Score: 0
   Accepted Answers:
   *Impact extrusion*

7) For wire drawing operation, the work material should essentially be
   - Ductile
   - Tough
   - Hard
   - Malleable

   **No, the answer is incorrect.**
   Score: 0
   Accepted Answers:
   *Ductile*

8) Wrinkling in flange is a forging defect due to
9) A brass billet is to be extruded from its initial diameter of 100 mm to a final diameter of 50 mm. The operation is carried out at a working temperature of 700 °C and the extrusion constant is 250 MPa. The force required for extrusion is

- 5.44 MN
- 2.72 MN
- 1.36 MN
- 0.36 MN

No, the answer is incorrect.
Score: 0
Accepted Answers:
Insufficient blank holding force

10) Which of the following statements are correct for the Rod and Wire drawing?

(i) Draw benches are used for drawing of rods and tubes (which cannot be coiled)
(ii) On the draw benches, rods are first made pointed using swager and then inserted through the die and moved using a chain drive or hydraulic mechanism.

- Only i
- Only ii
- Both i and ii
- None of these

No, the answer is incorrect.
Score: 0
Accepted Answers:
Both i and ii